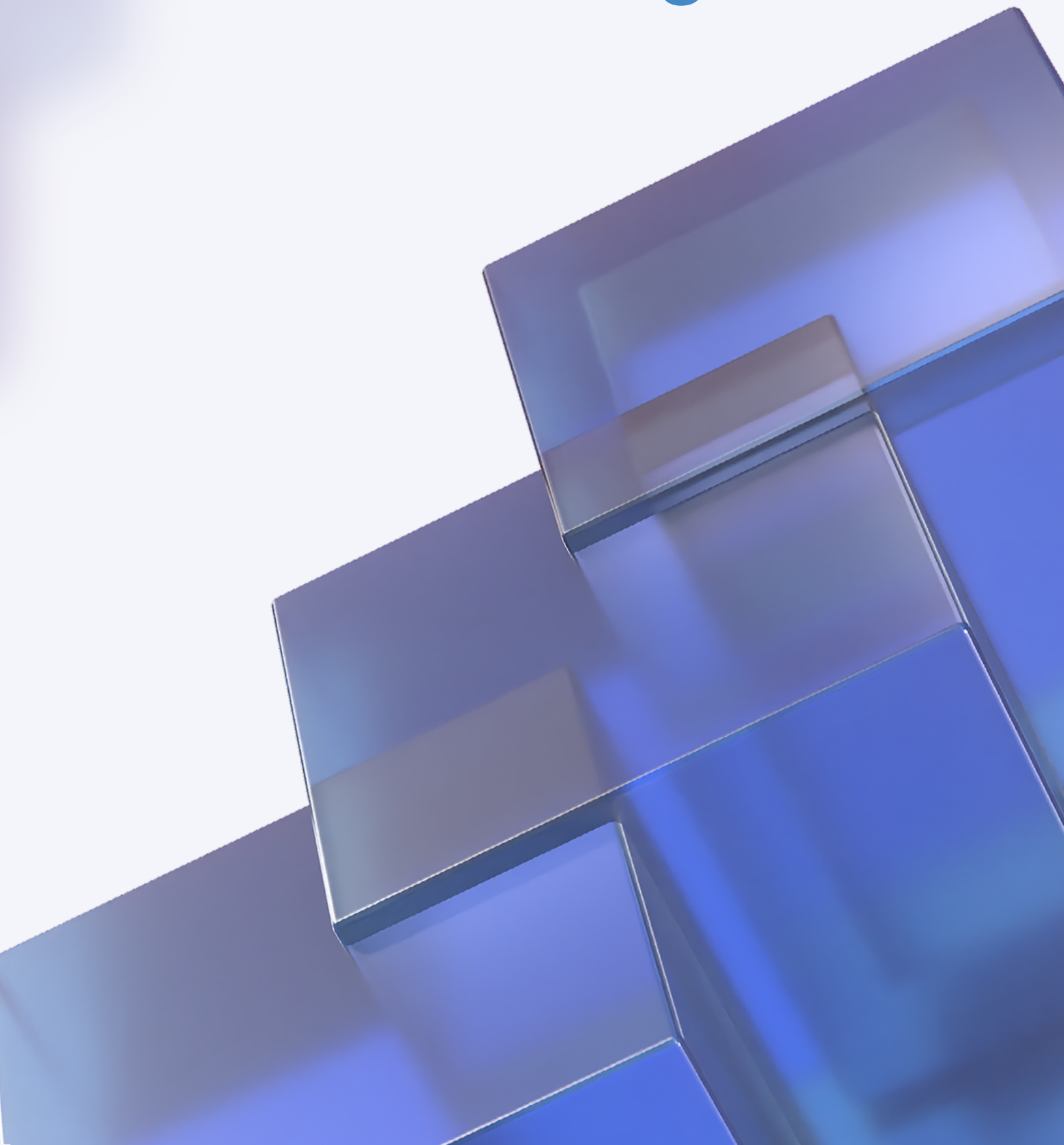


MPS

Product Catalog



Why Choose MPS

For almost 30 years, Monolithic Power Systems (MPS) — headquartered in Kirkland, Washington, and listed on Nasdaq — has been powering the most important technological innovations, from electric vehicles to artificial intelligence, renewable energy systems to advanced medical devices. Our fully customized service, dedicated support, and steadfast partnerships have attracted industry leaders and startups on the cusp of groundbreaking discoveries.

MPS is agile, nimble, and forward-thinking, always looking for better, faster, and more efficient ways to drive technological progress. We forge ahead to create what's next and make a sustainable impact.

We are a global leader in powering the most important technological innovations of our lives — working with our customers to create what's next. We design high-performance, super efficient power solutions for a wide range of product categories — from AI datacenters to automation, advanced medical devices to robotics.



Expert Engineering Resources

On-Site

Embedded engineering teams join our largest customers on location

On-Demand

Knowledgeable field application engineers (FAEs) and application engineers (AEs) respond as needed to assist customers in optimizing designs

Virtual

Remote engineers provide virtual design sessions

- Product Recommendations
- Project Troubleshooting
- Technical Consulting



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Quality Assurance & Reliability Commitment

The MPS Quality Assurance organization develops, coordinates, and champions strategic quality initiatives throughout MPS Inc., its foundries, and subcontractors. Its mission is to enable MPS to design, develop, manufacture, and deliver products to our customers with world-class quality and reliability that meet and exceed our customers' expectations.

MPS and Its Supplier Quality Systems and Certificates:

- ISO 9001:2008 (MPS)
- EU RoHS/HF/REACH Compliant (MPS)
- Sony Green Partner (MPS & Suppliers)
- TS16949 (Suppliers)
- ISO 14001 (Suppliers)

Product Quality:

- Automotive Products Qualified per AEC-Q100 Standards
- Standard Products Qualified per JEDEC and Military Standards
- Reliability Failure Rate <10FIT
- Product Quality Level <1.0ppm

Quality Control and Monitoring:

- On-Site Foundry and Assembly Teams for Real-Time Actions
- Quarterly Supplier Quality Review and Annual Supplier Audit
- Short-Term Reliability Monitoring Test – Daily
- Long-Term Reliability Monitoring Test – Monthly
- Real-Time Engineering Actions on Monitored Failures
- Quarterly Reliability Monitoring Reports

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Switching Regulators

CPU Core (Controllers) | Maximum Operating Input Voltage < 55V

	Part Number	V _{CC} (Min) (V)	V _{CC} (Max) (V)	I _Q (Typ) (mA)	Shutdown Current (Typ) (mA)	f _{SW} (MHz)	# of Output Rails	Regulated Output Phases	Package	Notes
	MP2965	3	3.6	30	0.15	0.2 to 3	2	10	QFN-48 (6x6)	VR13.HC/AVSBus
	MP2888A	3	3.6	30	0.15	0.2 to 5	1	10	QFN-40 (5x5)	OpenVReg
	MP2884A	3	3.6	30	0.15	0.2 to 5	1	4	QFN-40 (5x5)	OpenVReg
	MP2886A	3	3.6	30	0.15	0.2 to 5	1	6	QFN-40 (5x5)	OpenVReg
	MP2853	3	3.6	34	0.11	0.2 to 3	2	5	QFN-40 (5x5)	SVI2
	MP2855	3.15	3.45	40	0.17	0.2 to 3	2	9	TQFN-40 (5x5)	SVI2
	MP2926	3.15	3.45	40	0.15	0.2 to 3	3	6	TQFN-40 (5x5)	SOC, DDR memory power
N	MP2891	3.1	3.5	50	0.25	0.2 to 3	2	16	QFN-56 (7x7)	OpenVReg, CPU/GPU, ASIC
	MP2880	3.15	3.45	55	0.15	0.2 to 3	1	20	TQFN-56 (7x7)	ASIC, CPU/GPU
N	MP2882A	3.15	3.45	55	0.15	0.2 to 3	2	16	TQFN-56 (7x7)	SoC/CPU/GPU
	MP2927	3.15	3.45	40	0.15	0.2 to 3	3	8, 1, 1	TQFN-40 (5x5)	Any processor with PMBus/AVSBus
N	MP2890	3.1	3.5	50	0.25	0.2 to 3	2	20	QFN-64 (8x8)	OpenVReg
	MP2852	3.15	3.45	40	0.15	0.2 to 3	2	13	TQFN-48 (6x6)	SVI 2.0, supports 3-bit PVID mode, PMBus/I ² C compliant
N	MP2894	3.15	3.45	30	0.15	0.2 to 3	1	4	QFN-40 (5x5)	PWM-VID interface, OpenVReg 4+ and 4i+ spec, PMBus/I ² C compliant
N	MP2896	3.15	3.45	30	0.15	0.2 to 3	1	6	QFN-40 (5x5)	PWM-VID interface, OpenVReg 4+ and 4i+ spec, PMBus/I ² C compliant
	MP2898	3.15	3.45	30	0.15	0.2 to 3	1	10	QFN-40 (5x5)	PWM-VID interface, OpenVReg 4+ and 4i+ spec, PMBus/I ² C compliant
S	MP29540	3.1	3.5	38	0.23	0.12 to 1.5	1	8	TLGA-40 (5x5)	PMBus/I ² C compliant, hybrid buck topology feasible
N	MP2868A	3.1	3.5	45	0.11	0.2 to 3	2	8	QFN-52 (6x6)	PMBus/I ² C compliant, SVI3
N	MP2898A	3.15	3.45	50	0.15	0.2 to 3	1	10	QFN-40 (5x5)	PWM-VID interface, OpenVReg 4+ and 4i+ spec, PMBus/I ² C compliant
N	MP29804-B	3	3.6	5	0.1	0.3 to 1	1	4	TQFN-32 (4x4)	PWM-VID interface, OVR4-22
N	MP2861	3.1	3.5	40	0.15	0.2 to 3	2	8	QFN-40 (5x5)	SVI3
N	MP2862	3.1	3.5	40	0.15	0.2 to 3	2	12	QFN-48 (6x6)	SVI3
N	MP2971	3.15	3.45	30	0.15	0.2 to 3	2	8	QFN-40 (5x5)	Compliant with Intel VR14 and earlier protocols
N	MP2973	3.15	3.45	30	0.15	0.2 to 3	2	12	QFN-48 (6x6)	Compliant with Intel VR14 and earlier protocols
N	MP2972	3.15	3.4	30	0.15	0.2 to 3	2	12	QFN-48 (6x6)	VR13.HC/AVSBus
N	MP2976	3.15	3.4	40	0.15	0.2 to 3	2	2	QFN-40 (5x5)	VR13.HC/AVSBus
N	MP2978	3.15	3.4	40	0.15	0.2 to 3	2	4	QFN-40 (5x5)	VR13.HC/AVSBus
N	MP2985B	3.15	3.4	45	0.2	0.2 to 3	2	8	LGA-40 (5x5)	Compliant with Intel VR14 and earlier protocols
N	MP2992B	3.15	3.4	45	0.2	0.2 to 3	2	12	LGA-48 (6x6)	Compliant with Intel VR14 and earlier protocols

	Part Number	V _{CC} (Min) (V)	V _{CC} (Max) (V)	I _Q (Typ) (mA)	Shutdown Current (Typ) (mA)	f _{SW} (MHz)	# of Output Rails	Regulated Output Phases	Package	Notes
N	MP2993B	3.15	3.4	45	0.2	0.2 to 3	2	5	LGA-40 (5x5)	Compliant with Intel VR14 and earlier protocols
N	MP2869A	3.1	3.5	50	0.25	0.2 to 3	2	16	QFN-56 (7x7)	SVI3 (version 2) compliant
N	MP29612-A	3.1	3.5	50	0.25	0.2 to 3	2	12	QFN-48 (6x6)	SVI3 (version 2) compliant
N	MP29608-A	3.1	3.5	50	0.25	0.2 to 3	2	8	LGA-40 (5x5)	SVI3 (version 2) compliant
N	MP2975	3.15	3.4	40	0.15	0.2 to 3	2	8	QFN-40 (5x5)	PMBus/I ² C compliant, Intel VR13.HC compliant with PSYS function, backwards VR13/VR12.5 compliant
S	MP29816-B	3.1	3.5	50	0.25	0.2 to 3	2	16	TQFN-56 (7x7)	PMBus/I ² C compliant, AVSBus Rev. 1.3, PWM-VID Compatible with OVR-16
S	MP29816-C	3.1	3.5	50	0.25	0.2 to 3	2	16	TQFN-56 (7x7)	PMBus/I ² C compliant, AVSBus Rev. 1.3
S	MP2921	3.15	3.4	30	0.15	0.2 to 3	2	16	QFN-56 (7x7)	Intel VR14.Cloud and earlier protocols
S	MP2925	3.15	3.4	30	0.15	0.2 to 3	2	12	QFN-48 (6x6)	Intel VR14.Cloud and earlier protocols
S	MP2929	3.15	3.4	30	0.15	0.2 to 3	2	8	LGA-40 (5x5)	Intel VR14.Cloud and earlier protocols
S	MP29436	3.15	3.4	30	0.15	0.2 to 3	3	16	QFN-60 (7x7)	Intel VR14.Cloud, SVI3 rev. 3 and rev. 2, AVS and Intel IMVP9.3 specs
S	MP29439	3.15	3.4	30	0.15	0.2 to 3	4	9	QFN-52 (6x6)	Intel VR14.Cloud, SVI3 rev. 3 and rev. 2, AVS and Intel IMVP9.3 specs
N	MP2928	3.15	3.45	40	0.15	0.2 to 3	3	8, 2, 2	BGA-64 (4x4)	PMBus/I ² C compliant (1MHz bus speed), AVSBus

CPU Core (Controllers) | CPU Core Power (Intelli-Phase™)

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _{SW} Limit (Typ) (A)	Shutdown Current (Typ) (mA)	f _{SW} (MHz)	PWM Logic (V)	Package	Notes
	MP86905	4.5	16	50	75	0.1	0.1 to 2	3.3	QFN-23 (4x4)	-
	MP86945A	4.5	16	60	90	0.0	0.1 to 2	3.3	TQFN-25 (4x5)	-
	MP86934	4.5	16	25	60	0.0	0.1 to 2	3.3	TQFN-21 (3x4)	-
	MP86933	4.5	16	12	25	-	0.1 to 2	3.3	TQFN-13 (3x3)	-
	MP86957	3	16	70	110	0.1	0.1 to 3	3.3	LGA-41 (5x6)	-
	MP86972	3	12	60	90	0.1	0.1 to 3	3.3	TLGA-35 (3x6)	-
	MP86950	4.5	16	50	75	-	0.1 to 2	3.3	LGA-27 (4x5)	-
	MP86998	3	16	80	110	0.1	0.1 to 3	3.3	TLGA-41 (5x6)	-
	MP86920	4.5	16	20	50	-	0.1 to 2	3.3	LGA-27 (4x5)	-
	MP86936	3	16	60	90	0.1	0.1 to 3	3.3	TQFN-23 (3x6)	-
	MP86965	4.5	16	60	90	-	0.1 to 2	3.3	TLGA-31 (4x5)	-
	MP86952	3	16	70	110	0.1	0.1 to 3	3.3	LGA-41 (5x6)	Radiation tolerant
	MP86956	3	16	70	110	0.1	0.1 to 3	3.3	LGA-41 (5x6), TLGA-41 (5x6)	-
	MP86992	3	16	50	75	0.1	0.1 to 3	3.3	LGA-41 (5x6)	-
	MP86962	3	16	80	110	0.1	0.1 to 3	3.3	TLGA-41 (5x6)	Radiation tolerant
	MP86935-A	3	12	60	90	0.1	0.1 to 3	3.3	TLGA-35 (3x6)	-
S	MP87170	3	16	70	100	0.0	0.1 to 1.5	3.3	TLGA-41 (5x6)	Quiet Switcher™ technology
	MP87180	3	16	80	120	0.0	0.1 to 1.5	3.3	TLGA-41 (5x6)	Quiet Switcher™ technology
	MP87190	3	16	90	120	0.0	0.1 to 1.5	3.3	TLGA-41 (5x6)	Quiet Switcher™ technology
	MP87100	3	16	100	110	0.0	0.1 to 3	3.3	TLGA-41 (5x6)	Quiet Switcher™ technology
N	MP87990-N	3	16	50	100	0.0	0.1 to 3	3.3 and 5	TLGA-33 (5x5)	DCR sensing
	MP87991	3	16	50	100	0.0	0.1 to 3	3.3 and 5	TLGA-33 (5x5)	IMON sensing
N	MP87992	3	16	70	120	0.0	0.1 to 3	3.3	TLGA-41 (5x6)	Quiet Switcher™ technology
N	MP87006	3	16	90	120	0.0	0.1 to 3	3.3	TLGA-34 (4x6)	Quiet Switcher™ technology
N	MP87995-D	3	16	50	80	0.0	0.1 to 3	3.3 and 5	TLGA-41 (5x6)	Quiet Switcher™ technology, IMON sensing
N	MP87997-D	3	16	70	120	0.0	0.1 to 3	3.3	TLGA-41 (5x6)	Quiet Switcher™ technology, IMON sensing
N	MP87993	3	16	50	100	0.0	0.1 to 3	3.3 and 5	TLGA-33 (5x5)	DCR sensing
N	MP87000	3	16	90	120	0.0	0.1 to 3	3.3	TLGA-41 (5x6)	Quiet Switcher™ technology
S	MP87120	3	16	20	50	0.0	0.1 to 1.5	3.3 and 5	TLGA-27 (4x5)	Quiet Switcher™ technology
N	MP87220	3	16	20	50	0.0	0.1 to 1.5	3.3 and 5	TLGA-30 (4x5)	Quiet Switcher™ technology
S	MP87250	3	16	50	75	0.0	0.1 to 1.5	3.3 and 5	TLGA-30 (4x5)	Quiet Switcher™ technology
N	MP87270	3	16	70	100	0.0	0.1 to 1.5	3.3 and 5	TLGA-30 (4x5)	Quiet Switcher™ technology
N	MP87290	3	16	90	130	0.0	0.1 to 1.5	3.3 and 5	TLGA-34 (4x6)	Quiet Switcher™ technology
N	MP87294	3	16	100	140	0.0	0.1 to 1.5	3.3 and 5	TLGA-34 (4x6)	Quiet Switcher™ technology, exposed top
N	MP87297	3	16	100	140	0.0	0.1 to 1.5	3.3 and 5	TLGA-34 (4x6)	Quiet Switcher™ technology
N	MP87563	3	16	2x60	120	0.0	0.1 to 3	3.3 and 5	TLGA-33 (5.25x5)	Dual-phase
S	MP87550	3	16	50	100	0.0	0.1 to 3	3.3 and 5	TLGA-30 (4x5)	-

Step-Down Converters (Buck) | Maximum Operating Input Voltage $1.5V \leq V_{IN} \leq 6V$

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (μ A)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	Light-Load	Constant-On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
MP28200	2	5.5	0.2	0.5	-	1.5	✓	✓	✓	✓	-	QFN-12 (2x2)	Ultra-low I_O
MP28310	2	5.5	0.3	0.5	-	1.5	✓	✓	✓	✓	-	CSP-12 (1.2x1.6)	100mA LDO with 300nA $I_{O,prog}$, V_{OUT} by CTRL, P2P with the MP28210, equivalent to the TPS62743
MP21600	2.3	5.5	0.6	11	0.6	2.4	-	✓	✓	✓	-	QFN-6 (1x1.5)	High switching frequency, ultra-small package
MP28300	2	5.5	0.3	0.5	-	1.5	✓	✓	✓	✓	-	QFN-12 (2x2)	Ultra-low I_O
MP28301	2	5.5	0.7	0.5	0.6	1.5	✓	✓	✓	✓	-	QFN-12 (2x2)	100mA LDO with 300nA $I_{O,prog}$, V_{OUT} by CTRL, P2P with the MP28300
MP28210	2	5.5	1	0.5	-	1.5	✓	✓	✓	✓	-	CSP-12 (1.2x1.6)	P2P with the MP28310
MP2141N	2.3	5.5	1	11	0.6	2.2	✓	✓	✓	✓	-	SOT563 (1.6x1.6)	Output discharge, power good only for fixed V_{OUT} version
MP2148	2.3	5.5	1	10	0.6	2.2	✓	✓	✓	✓	-	QFN-6 (1x1.5)	High switching frequency, ultra-small package
MP21148	2.3	5.5	1	500	0.6	2.4	✓	-	✓	✓	-	QFN-6 (1x1.5)	FCCM, low ripple across entire load range
MP2149	2.7	6	1 (2x)	45	0.6	1	-	✓	-	✓	-	TSOT23-8	Dual 1A output current
MP2151	2.5	5.5	1	25	0.6	1.1	✓	✓	✓	✓	-	SOT563 (1.6x1.6), UTQFN (1.2x1.6)	1% V_{FB} accuracy, output discharge, adj. and fixed V_{OUT} versions, P2P with the MP2152/3
MP2181	2.5	5.5	1	21	0.6	1.2	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	External soft start, 1% V_{FB} accuracy, output discharge, P2P with the MP2182/3/4
MP2141Q-18	2.3	5.5	1.5	20	-	2.2	-	✓	✓	✓	-	SOT563 (1.6x1.6)	Fixed 0.61V/1.8V output voltage, output discharge, VSEL for PFM/PWM
MP2152	2.5	5.5	2	25	0.6	1.1	✓	✓	✓	✓	-	SOT563 (1.6x1.6), UTQFN (1.2x1.6)	1% V_{FB} accuracy, output discharge, adj. and fixed V_{OUT} versions, P2P with the MP2151/3
MP2172C	2.4	5.5	2	450	0.6	1.1	-	-	✓	✓	-	UTQFN (1.2x1.6)	FCCM, 1% V_{FB} accuracy, output discharge
MP2192C	2.5	5.5	2	450	0.6	1.1	-	-	✓	✓	-	WLCSP-6 (1.23x0.85)	FCCM, 1% V_{FB} accuracy, fast output discharge, P2P with the MP2193
MP2182	2.5	5.5	2	21	0.6	1.2	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	External soft start, 1% V_{FB} accuracy, output discharge, P2P with the MP2182/3/4
MP2122A	2.7	6	2 (2x)	45	0.6	1	-	✓	-	✓	-	TSOT23-8	Dual 2A output current
MP2166 MPQ2166	2.7	6	2 (2x)	60	0.6	3	✓	✓	-	✓	✓	QFN-18 (2x3), QFN-18 (2.5x3.5)	Dual-channel, external soft start
S MP1641	2.4	6	1	35	0.6	2.2	✓	✓	✓	✓	-	SOT563 (1.6x1.6)	PG indicator, P2P with the MP1601/5 family
S MP1642	2.4	6	2	35	0.6	2.2	✓	✓	✓	✓	-	SOT563 (1.6x1.6)	PG indicator, P2P with the MP1601/5 family
S MP1641C	2.4	6	1	35	0.6	2.2	✓	-	✓	✓	-	SOT563 (1.6x1.6)	FCCM, PG indicator, P2P with the MP1601/5 family
S MP1642C	2.4	6	2	35	0.6	2.2	✓	-	✓	✓	-	SOT563 (1.6x1.6)	FCCM, PG indicator, P2P with the MP1601/5 family
S MP1641N	2.4	6	1	35	0.6	2.2	-	✓	✓	✓	-	SOT563 (1.6x1.6)	P2P with the MP1601/5 family
S MP1642N	2.4	6	2	35	0.6	2.2	-	✓	✓	✓	-	SOT563 (1.6x1.6)	P2P with the MP1601/5 family
S MP1641A	2.4	6	1	35	0.6	2.2	-	-	✓	✓	-	SOT563 (1.6x1.6)	FCCM, P2P with the MP1601/5 family

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _O (Typ) (μA)	V _{FB} (Typ) (V)	f _{SW} (MHz)	Power Good	Light Load	Constant On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
S	MP1642A	2.4	6	2	35	0.6	2.2	-	-	✓	✓	-	SOT563 (1.6x1.6)	FCCM, P2P with the MP1601/5 family
	MP2153	2.5	5.5	3	25	0.6	1.1	✓	✓	✓	✓	-	SOT563 (1.6x1.6), UTQFN (1.2x1.6)	1% V _{FB} accuracy, output discharge, adj. and fixed V _{OUT} versions, P2P with the MP2151/2
	MP2193	2.5	5.5	3	450	0.6	1.1	-	✓	✓	✓	-	WLCSP-6 (1.23x0.85)	1% V _{FB} accuracy, output discharge, adj. output, P2P with the MP2192C
	MP2164	2.5	5.5	3	50	0.6	2.3	✓	✓	✓	✓	-	QFN-12 (2x2)	Forced PWM and auto-PFM mode
S	MP2156	2.5	5.5	1.2	30	0.5	1.2	✓	✓	✓	✓	-	SOT583 (1.6x2.1x0.6)	1.2A, synchronous with MODE, P2P with the TPS628301

Step-Down Converters (Buck) | Operating Input Voltage $1.5V \leq V_{IN} \leq 6V$

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _O (Typ) (μA)	V _{FB} (Typ) (V)	f _{SW} (MHz)	Power Good	External Soft Start	Light Load	Constant On-Time (COT)	100% Duty Cycle	Package	Notes
	MP2183	2.5	5.5	3	21	0.6	1.2	✓	✓	✓	✓	✓	SOT583 (1.6x2.1)	1% V _{FB} accuracy, output discharge, P2P with the MP2181/3/4
	MP2188	2.5	5.5	3 (2x)	80	0.6	1.2	✓	-	✓	✓	✓	QFN-16 (2.2x2.6)	Dual-output, output discharge
	MP2131	2.7	5.5	4	19	0.6	1.2	✓	-	✓	✓	✓	QFN-12 (2x2)	Output discharge
	MP2184	2.5	5.5	4	21	0.6	1.2	✓	✓	✓	✓	✓	SOT583 (1.6x2.1)	1% V _{FB} accuracy, output discharge, P2P with the MP2181/2/3
	MP2147	2.8	5.5	4	40	0.6	1.2	✓	-	✓	✓	-	QFN-12 (2x3)	Output discharge, PWM/PFM mode, dynamic voltage scaling
	MP2145	2.8	5.5	6	40	0.6	1.2	✓	-	✓	✓	-	QFN-12 (2x3)	Output discharge, PWM/PFM mode, dynamic voltage scaling
	MP1604	2.4	5.5	4	4.5	0.4	1.3	✓	-	✓	✓	-	SOT583 (1.6x2.1)	High performance, low I _O , supports V _{OUT} from 0.4V, 0.75% output accuracy, output discharge
N	MP2194	2.4	5.5	4	4.5	0.4	1.3	✓	-	✓	✓	-	SOT583 (1.6x2.1)	High performance, low I _O , supports V _{OUT} from 0.4V, 0.75% output accuracy, output discharge
	MP1604C	2.4	5.5	4	450	0.4	1.3	✓	-	-	✓	-	SOT583 (1.6x2.1)	High performance, -C for FCCM version, low I _O , supports V _{OUT} from 0.4V, 0.75% output accuracy, output discharge
	MP1608	2.4	5.5	6	4.5	0.4	1.3	✓	-	✓	✓	-	SOT583 (1.6x2.1)	High performance, low I _O , supports V _{OUT} from 0.4V, 0.75% output accuracy, output discharge
N	MP2196	2.4	5.5	6	4.5	0.4	1.3	✓	-	✓	✓	-	SOT583 (1.6x2.1)	High performance, low I _O , supports V _{OUT} from 0.4V, 0.75% output accuracy, output discharge
	MP1608C	2.4	5.5	6	450	0.4	1.3	✓	-	-	✓	-	SOT583 (1.6x2.1)	High performance, -C for FCCM version, low I _O , supports V _{OUT} from 0.4V, 0.75% output accuracy, output discharge
S	MP1609	2.4	5.5	8	4.5	0.4	1.2	✓	-	✓	✓	-	QFN-7 (2x3)	High performance, low I _O , supports V _{OUT} from 0.4V, 0.75% output accuracy, output discharge
	MP8847	2.7	6	6	300	0.6	0.85 to 2.2	✓	-	✓	-	-	QFN-14 (2x3)	I ² C, prog. V _{OUT} , power-save mode

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (μ A)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Package	Notes
	MP8770C	3	17	8	100	0.6	0.7	✓	✓	-	✓	-	QFN-16 (3x3)	FCCM, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
	MP8771	3	18	10	100	0.6	0.7	✓	✓	✓	✓	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
S	MP8771H	3	18	10	100	0.6	1.4	✓	✓	-	✓	-	QFN-16 (3x3)	FCCM, high frequency, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
	MP8774	3	18	12	100	0.6	0.7	✓	✓	✓	✓	-	QFN-16 (3x3)	High frequency, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
	MP8774H	3	18	12	100	0.6	1.4	✓	✓	✓	✓	-	QFN-16 (3x3)	High frequency, wide V_{IN} range supports 3.3V, 5V, and 12V inputs

Step-Down Converters (Buck) | Maximum Operating Input Voltage $\leq 28V$

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
	MP1479	4.2	18	1	0.2	0.8	0.8	-	-	✓	✓	SOT563 (1.6x1.6)	Low UVLO, P2P with the MP1476/MP1477
	MP2313	4.5	24	1	0.2	0.8	2	-	-	✓	-	TSOT23-8	High frequency, light-load mode (AAM pin), P2P with the MP2138
	MP2388	4.5	21	1	0.2	0.8	2	-	-	✓	-	QFN-8 (1.5x2.5)	Small package, ultra-thin profile option
	MP2317	7.5	26	1	0.2	0.8	0.6	-	-	✓	-	TSOT23-6	Low current limit version of the MP2314, optimized EMI
	MP2322	3	22	1	0.0	0.6	1.3	✓	-	✓	✓	QFN-8 (1.5x2)	Ultra-low I_O , small package, output discharge
	MP1476	4.2	18	2	0.2	0.8	0.8	-	-	✓	✓	SOT563 (1.6x1.6)	P2P with the MP1479/MP1477
	MP2318	4.5	24	2	0.2	0.8	2	-	-	✓	-	TSOT23-8	High frequency, light-load mode (AAM pin), P2P with the MP2313
	MPQ2314	4.5	24	2	0.2	0.8	0.5	-	-	✓	✓	TSOT23-8	AAM power-save mode, industrial grade
	MP2332H	4.2	18	2	0.2	0.8	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2333H
	MP2321	4	19	2	0.0	0.6	Prog	✓	✓	✓	-	QFN-14 (2x3)	Forced PWM or auto-PFM/PWM mode selectable, 100% duty cycle
	MP2392	4.2	24	2	0.2	0.8	0.7	✓	✓	✓	✓	SOT583 (1.6x2.1)	P2P with the MP2393
	MP2331H	4.2	24	2	0.2	0.8	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2330H
	MP2344	7.5	26	2	0.2	0.8	0.6	-	-	✓	-	TSOT23-6	P2P with the MP2317/MP2345, optimized EMI
	MP2345	7.5	26	2.5	0.2	0.8	0.6	-	-	✓	-	TSOT23-6	P2P with the MP2317/MP2344, optimized EMI
	MP2393	4.2	24	3	0.2	0.8	0.7	✓	✓	✓	✓	SOT583 (1.6x2.1)	P2P with the MP2392
	MP2333H	4.2	18	3	0.2	0.8	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2332H

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
	MP2330H	4.2	24	3	0.2	0.8	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2331H
	MP1477	4.2	17	3	0.2	0.8	0.8	-	-	✓	✓	SOT-563 (1.6x1.6)	P2P with the MP1479/MP1476
	MP1477H	4.2	17	3	0.2	0.8	1.2	-	-	-	✓	SOT563 (1.6x1.6)	High frequency, FCCM
N	MP1653A	4.2	17	3	0.2	0.6	1.2	-	-	✓	✓	SOT563 (1.6x1.6)	Forced PWM operation mode, high switching frequency, adj. output from 0.6V
	MP1660	4.5	16	3	0.2	0.6	0.6	-	-	✓	✓	SOT-563 (1.6x1.6)	600mV V_{REF}
S	MP1682	4.5	16	2	0.1	0.6	1.1	-	-	✓	✓	SOT563 (1.6x1.6)	High frequency, PFM, new generation
S	MP1682C	4.5	16	2	0.1	0.6	1.1	-	-	-	✓	SOT563 (1.6x1.6)	High frequency, FCCM, new generation
S	MP1683	4.5	16	3	0.1	0.6	0.6	-	-	✓	✓	SOT563 (1.6x1.6)	PFM, new generation
S	MP1683C	4.5	16	3	0.1	0.6	0.6	-	-	-	✓	SOT563 (1.6x1.6)	FCCM, new generation
S	MP1653N	4.5	16	3	0.1	0.6	1.1	-	-	✓	✓	SOT563 (1.6x1.6)	High frequency, PFM, new generation
S	MP1653F	4.5	16	3	0.1	0.6	1.1	-	-	-	✓	SOT563 (1.6x1.6)	High frequency, FCCM, new generation
S	MP1654L	4.5	16	4	0.1	0.6	0.6	-	-	✓	✓	SOT563 (1.6x1.6)	PFM, new generation
S	MP1654N	4.5	16	4	0.1	0.6	1.1	-	-	✓	✓	SOT563 (1.6x1.6)	High frequency, PFM, new generation
S	MP1654F	4.5	16	4	0.1	0.6	1.1	-	-	-	✓	SOT563 (1.6x1.6)	High frequency, FCCM, new generation
	MP2223	4.5	18	3/2	1	0.8	0.5	-	-	✓	-	TSOT23-8	Dual 3A/2A buck, 180° out-of-phase operation
	MP2348	4.2	24	4	0.2	0.8	0.7	-	✓	✓	✓	SOT583 (1.6x2.1)	Forced PWM, auto-PFM mode, ultrasonic mode
	MP8854	2.9	18	4	0.4	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	QFN-14 (3x4)	I ² C prog. FB range, int. telemetry, accurate V_{OUT}/I_{OUT} readback via I ² C, P2P with the MP8861/69S
	MP8853	2.9	18	4	0.4	0.6 to 1.108 (Adj in 4mV Steps)	0.5 to 1.25	✓	-	✓	✓	QFN-14 (3x3)	I ² C prog. FB range and f_{SW} , accurate V_{OUT}/I_{OUT} readback via I ² C
	MP8864	4.5	21	4	0.5	0.6 to 1.87 (Adj in 10mV Steps)	0.6 to 1.6 (Selectable)	✓	✓	✓	-	QFN-15 (3x3)	I ² C interface, prog. V_{OUT} , power-save mode
	MP8870	3	18	15	0.1	0.3 to 1.536 (Adj in 1.5mV Steps)	0.55 to 0.75	✓	✓	✓	✓	QFN-21 (3x4)	Frequency and current limit adj. via I ² C, differential V_{OUT} remote sense, adaptive COT for ultra-fast transient response
N	MP1676	4.2	16	6	0.2	0.4	0.8	-	-	✓	✓	SOT583 (1.6x2.1)	Wide 0.4V to 10V V_{OUT} range, ±1% accuracy, new generation
N	MP1676H	3.9	16	6	0.2	0.4	1.2	-	-	✓	✓	SOT583 (1.6x2.1)	Wide 0.4V to 10V V_{OUT} range, ±1% accuracy, new generation
N	MP1676C	4.2	16	6	0.6	0.4	0.8	-	-	✓	-	SOT583 (1.6x2.1)	-C for FCCM version, wide 0.4V to 10V V_{OUT} range, ±1% accuracy

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
S	MP1678	4.2	16	8	0.2	0.4	0.8	✓	-	✓	✓	QFN-10 (2x3)	PG indicator, FCCM/PFM mode selection
	MPQ8623	4	16	6	0.7	0.9	0.6/1.1/2	✓	✓	✓	✓	QFN-14 (2x3)	Prog. current limit, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output capacitor, excellent load reg.
	MPQ8626	4	16	6	0.7	0.6	0.6/1.1/2	✓	✓	✓	✓	QFN-14 (2x3)	Prog. current limit, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output capacitor, excellent load reg.
	MP2349	4.5	24	6.5	0.1	0.6	0.7	-	-	✓	✓	QFN-11 (2x2)	Forced PWM, auto-PFM mode, ultrasonic mode
	MPQ8861-AEC1	2.9	18	12	0.4	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	QFN-14 (3x4)	Wettable-flank package, output adj. in 4mV steps, I°C
	MPQ8633A	4	16	16	0.7	0.6	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output capacitor, excellent load reg.
	MPQ8633B	4	16	20	0.7	0.6	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output capacitor, excellent load reg.
	MPQ8634A	4	16	12	0.7	0.9	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output capacitor, excellent load reg.
	MPQ8634B	4	16	20	0.7	0.9	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output capacitor, excellent load reg.
N	MPQ8628	4	16	8	0.7	0.6	0.6/1.1/2	✓	✓	✓	✓	QFN-14 (2x3)	Prog. current limit, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg.
S	MPQ82B50	4	16	12	0.8	0.4	0.6/0.8/1/1.2	✓	✓	✓	✓	TQFN-19 (3x3), TQFN-19 (3x3.5)	High-efficiency, synchronous step-down converter w/ adjustable current limit
S	MPQ82D00	4	16	20	2	Prog	0.6/0.8/1/1.2	✓	✓	✓	✓	TQFN-19 (3x3), TQFN-19 (3x3.5)	High-efficiency, synchronous step-down converter w/ integrated telemetry via PMBus
	MPQ8633A	4	16	12	0.7	0.6	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg.
	MPQ8633B	4	16	20	0.7	0.6	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg.

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
	MPQ8634A	4	16	12	0.7	0.9	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg.
	MPQ8634B	4	16	20	0.7	0.9	0.6/0.8/1	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg.
	MPQ8655	4	16	30	2.5	Prog	0.4/0.6/0.8/1	✓	-	✓	✓	TQFN-25 (4x5)	Drop-in replacement for MPQ8645P, scalable multi-phase operation, digital interface, true remote V_{OUT} sense, prog. V_{OUT} , current limit, and freq.
	MPQ8785	3.1	16	40	18	Prog	0.3 to 2	✓	-	✓	✓	TLGA-37 (5x6)	Digital POL with PMBus, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MPQ8786A	3.1	16	25	18	Prog	0.3 to 2	✓	-	✓	✓	TLGA-37 (5x6)	Digital POL with PMBus, scalable, synchronous, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MPQ8787	3.1	16	40	18	0.6/1.25	0.8	✓	-	✓	✓	TLGA-37 (5x6)	Synchronous, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MPQ8787A	3.1	16	40	18	0.946/1.245	0.8	✓	-	✓	✓	TLGA-37 (5x6)	Synchronous, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MPQ8788	4.5	16	35	20	Prog	0.3 to 1.5	✓	-	✓	✓	TLGA-40 (5x7)	Digital POL with PMBus, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MPQ8789	4.5	16	40	20	Prog	0.3 to 1.5	✓	-	✓	✓	TLGA-40 (5x7)	Digital POL with PMBus, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MP9940B	4.5	16	15	7	Prog	0.3 to 2	✓	✓	✓	✓	LGA-45 (4x6)	Digital POL, SVID step-down converter with PMBus for VR13 and IMVP8/9
N	MP9941	4.5	16	30	30	Prog	0.3 to 2	✓	✓	-	-	TLGA-37 (5x6)	Digital POL, SVID, digital step-down converter with PMBus for VR14
N	MPQ8790A	4.3	16	20	20	Prog	0.3 to 2	✓	-	✓	✓	TLGA-40 (5x7)	Digital POL with PMBus, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MPQ8791	4.3	16	10	20	Prog	0.3 to 2	✓	✓	✓	✓	TLGA-40 (5x7)	Digital POL with PMBus, flexible for multiple rails in system, adaptive COT, common footprint package (with 0.5mm pitch)
N	MPQ8650	3.1	16	50	19.3	Prog	0.3 to 2	✓	-	✓	✓	TLGA-44 (5x6)	Digital POL with PMBus, scalable, synchronous, flexible for multiple rails in system, adaptive COT

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
N	MPQ8751	3.1	16	60	18	Prog	0.3 to 2	✓	-	✓	✓	TLGA-44 (6x6)	Digital POL with PMBus, scalable, synchronous, flexible for multiple rails in system, adaptive COT

Step-Down Converters (Buck) | Maximum Operating Input Voltage $\leq 28V$

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Package	Notes
	MP2328	4.5	28	2	0.2	0.5	0.5	✓	✓	✓	-	SOT583 (1.6x2.1)	P2P with the MP233x family
	MP2328C	4.5	28	2	0.6	0.5	0.5	✓	✓	-	✓	SOT583 (1.6x2.1)	FCCM
	MP2338	4.5	28	3	0.2	0.5	0.5	✓	✓	✓	-	SOT583 (1.6x2.1)	P2P with the MP2328
	MP2316	4	19	3	0.0	0.6	Prog	✓	✓	✓	-	QFN-14 (2x3)	High efficiency, 100% duty cycle
	MP2326	3.9	19	4	0.0	0.6	Prog	✓	✓	✓	-	QFN-14 (2x3)	Selectable PFM/PWM mode, 100% duty cycle
	MP8715	4.5	21	4	0.7	0.8	0.5	✓	✓	-	-	QFN-14 (3x4), SOIC-8E	100% duty cycle, ext. freq. sync
	MP1499	4.5	16	5	0.6	0.8	0.5	-	✓	✓	-	QFN-10 (2x3)	200kHz to 2MHz ext. freq. sync range, current mode
	MP2384	4.5	24	4	0.1	0.6	0.7	✓	-	✓	-	QFN-11 (2x2)	Output discharge, thermal shutdown with auto-retry, P2P with the MP2329/MP2386
	MP2384C	4.5	24	4	0.1	0.6	0.7	✓	-	-	✓	QFN-11 (2x2)	FCCM
	MPQ8636-4	4.5	18	4	0.9	0.6	Prog	✓	✓	-	✓	QFN-16 (3x4)	CCM, non-latch OVP, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output capacitor
	MP2225	4.5	18	5	0.3	0.6	0.5	-	-	✓	-	TSOT23-8	External freq. sync, P2P with the MP2236
	MPQ8623	4	16	6	0.7	0.9	0.6/1.1 /2.2	✓	✓	✓	-	QFN-14 (2x3)	Prog. current limit, prop. switching loss red., pre-biased start-up, stable w/ zero ESR output capacitor, excellent load reg.
	MP8861	2.9	18	6	0.4	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	-	QFN-14 (3x4)	I ² C prog. FB range, integrated telemetry, accurate V_{OUT}/I_{OUT} readback via I ² C, P2P with the MP8854/69S
	MP2236	3	18	6	0.2	0.6	0.6	-	-	✓	-	TSOT23-8	P2P with the MP2225
	MP2236C	3	18	6	0.2	0.6	0.6	-	-	-	✓	TSOT23-8	FCCM
	MP2229	4.5	21	6	0.4	0.6	Prog	-	✓	✓	-	QFN-14 (3x3)	Current mode, external frequency sync
	MP8865	4.5	21	6	0.5	0.6 to 1.87 (Adj in 10mV Steps)	0.6 to 1.6 (Selectable)	✓	✓	✓	-	QFN-15 (3x3)	I ² C interface, prog. V_{OUT} , power-save mode

Part Number	V_{IN}	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
MP2329	4.5	24	6.5	0.1	0.6	0.7	✓	-	✓	✓	-	-	QFN-11 (2x2)	Output discharge, thermal shutdown with auto-retry, P2P with the MP2384/MP2386
MP2329C	4.5	24	6.5	0.1	0.6	0.7	✓	-	-	✓	-	-	QFN-11 (2x2)	FCCM version of the MP2329
MP2386C	4.5	24	8	0.1	0.6	0.7	✓	-	✓	✓	-	-	QFN-11 (2x2)	FCCM, P2P with the MP2384/MP2329
MP2386	4.5	24	8	0.1	0.6	0.7	✓	-	✓	✓	-	-	QFN-11 (2x2)	Output discharge, OCP, OVP, UVP, thermal shutdown with auto-retry, P2P with the MP2384/MP2329
MP2276	2.7	16	8	0.6	0.8	0.6/1.1/2	✓	✓	✓	✓	-	-	QFN-14 (2x3)	Prog. current limit, forced PWM/ auto-PFM mode
MP8770	3	17	8	0.1	0.6	0.7	✓	✓	✓	✓	-	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
MP8770C	3	17	8	0.1	0.6	0.7	✓	✓	-	✓	-	-	QFN-16 (3x3)	FCCM, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
MP8867	4.5	17	8	0.6	0.6 to 1.87 (Adj in 10mV Steps)	0.5 to 1.5 (Selectable)	✓	✓	✓	-	-	-	QFN-14 (3x4)	I ² C, prog. V_{OUT} , power-save mode
MP8759	4.5	26	8	0.1	0.6	0.7	✓	-	✓	✓	-	-	QFN-12 (2x3)	USM, PFM/PWM selection, hiccup mode OCP and UVP, output discharge
MP2238	4.2	18	8	0.2	0.6	0.6	-	-	✓	✓	-	-	QFN-12 (2x3)	1% V_{FB} accuracy, 8A version of the MP2236
MP8771	3	18	10	0.1	0.6	0.7	✓	✓	✓	✓	-	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
MPQ8636A-10	4.5	18	10	0.9	0.6	Prog	✓	✓	-	✓	✓	-	QFN-16 (3x4)	CCM, latch-off OVP/OCP
MP8758H	4.5	22	10	0.2	0.6	0.5	✓	-	✓	✓	-	-	QFN-21 (3x4)	Thermal auto-retry, hiccup mode OCP and UVP, PFM/PWM mode
MP8714	4.5	17	10	0.6	0.6	Ext clock	✓	✓	✓	-	-	-	QFN-14 (3x4)	Ext. freq. sync 200kHz to 2MHz, current mode
MP8868	4.5	17	10	0.6	0.6 to 1.87 (Adj in 10mV Steps)	0.5 to 1.5 (Selectable)	✓	✓	✓	-	-	-	QFN-14 (3x4)	I ² C, prog. V_{OUT} , power-save mode
MP8720	4.5	26	10	0.1	0.6	0.7	✓	-	✓	✓	-	-	QFN-16 (3x3)	Output discharge, adj. current limit, FCCM or PSM, over-current limit, latch-off reset
MP8772	3	17	12	0.1	0.6	0.7	✓	✓	✓	✓	-	-	QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
MP8774	3	18	12	0.1	0.6	0.7	✓	✓	✓	✓	-	-	QFN-16 (3x3)	Wide V_{IN} range supports 3.3V, 5V, and 12V inputs
MP8774C	3	18	12	0.1	0.6	1.4	✓	✓	-	✓	-	-	QFN-16 (3x3)	FCCM version of the MP8774H
MP8774H	3	18	12	0.1	0.6	1.4	✓	✓	✓	✓	-	-	QFN-16 (3x3)	High frequency, wide V_{IN} range supports 3.3V, 5V, and 12V inputs
MP8869S	2.9	18	12	0.4	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	-	-	QFN-14 (3x4)	V_{OUT} adj. up to 5.5V with FB pin, integrated telemetry, accurate V_{OUT}/I_{OUT} readback via I ² C, P2P with the MP8861/54

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
	MP8719	4.5	26	12	0.1	0.6	0.5/0.7	✓	-	✓	✓	-	QFN-16 (3x3)	Output discharge, USM, buck converter with $\pm 1A$ LDO and buffered reference
S	MP2421	3.6	24	20	0.2	0.4	0.65/0.8/1	✓	✓	✓	✓	-	TLGA-28 (3x4)	20A, selectable freq., differential remote sense for high output accuracy, 1% reference voltage accuracy
S	MP2421B	3.6	24	20	0.2	0.4	0.3/0.5/ 0.65/0.8/1	✓	✓	✓	✓	-	TLGA-28 (3x4)	High efficiency, 24V/20A, I^2C version of the MP2421
S	MP2422	3.6	24	25	0.2	0.4	0.5/0.8/1	✓	✓	✓	✓	-	TLGA-36 (5x5)	25A, selectable freq., differential remote sense for high output accuracy, 1% reference voltage accuracy
S	MP2422B	3.6	24	25	0.2	0.4	0.3/0.5/ 0.65/0.8/1	✓	✓	✓	✓	-	TLGA-36 (5x5)	High-efficiency 24V/25A buck, I^2C version of the MP2422
S	MP2423	3.6	24	30	0.2	0.4	0.5/0.8/1	✓	✓	✓	✓	-	TLGA-36 (5x5)	30A, selectable freq., differential remote sense for high output accuracy, 1% reference voltage accuracy
	MPQ8636H-20	4.5	18	20	1	0.6	Prog	✓	✓	-	✓	✓	QFN-29 (5x4)	CCM, hiccup OVP
	MP8792	2.7	16	12	0.7	0.6	0.6/0.8/1 (Selectable)	✓	✓	✓	✓	-	QFN-21 (3x4)	Differential V_{OUT} sense, adj. accurate current limit level, 0.5% FB, selectable PSM/FCCM, V_{OUT} tracking, pre-biased start-up
	MP8794	2.7	16	20	0.7	0.6	0.6/0.8/1 (Selectable)	✓	✓	✓	✓	-	QFN-21 (3x4)	Adj. current limit, prog. frequency, differential V_{OUT} sense
	MP8795H	2.7	16	20	0.7	0.6	0.6/0.8/1 (Selectable)	✓	✓	✓	✓	-	QFN-21 (3x4)	FCCM, adj. current limit, prog. frequency, differential V_{OUT} sense
	MP8796	4	16	30	0.7	0.6	Prog	✓	✓	✓	✓	-	TQFN-25 (4x5)	Prog. current limit, scalable multi-phase operation, remote sense, hiccup or latch-off for OCP, OVP, and OTP, non-PMBus version of the MPQ8645P
	MP8796B	4	16	30	2.5	0.6	Prog	✓	-	-	✓	-	TQFN-25 (4x5)	Digital interface
	MPQ8636-4	4.5	18	4	0.9	0.6	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	CCM, non-latch OVP, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap.
	MPQ8636A-10	4.5	18	10	0.9	0.6	Prog	✓	✓	-	✓	✓	QFN-16 (3x4)	CCM, latch-off OVP/OCP
	MPQ8633A-H	4	16	12	0.7	0.6	0.6/0.8/1	✓	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg., non-latch OCP
	MPQ8633B-H	4	16	20	0.7	0.6	0.6/0.8/1	✓	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg., non-latch OCP
N	MPQ8645	4	16	30	2.5	0.6	0.4/0.6/ 0.8/1	✓	-	✓	✓	✓	TQFN-25 (4x5)	Scalable, pre-biased start-up, true remote V_{OUT} sense, excellent load regulation, stable w/ zero-ESR output cap.
	MP8638	4.5	16	12	0.1	0.6	0.7 to 1	✓	-	✓	✓	-	QFN-16 (3x3)	Prog. current limit and frequency, low I_Q , output discharge

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _O (Typ) (mA)	V _{FB} (Typ) (V)	f _{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
MP8639	4.5	16	6	0.1	0.6	0.8	✓	-	✓	✓	-	QFN-11 (2x2)	Low I _O , prop. switching loss red., output discharge
MPQ8643	4	16	20	0.7	0.6	0.6/0.8/1	✓	✓	✓	✓	✓	QFN-21 (3x4)	Prog. current limit and freq., voltage tracking, prop. switching loss red., pre-biased start-up, stable w/ zero-ESR output cap., excellent load reg.

Step-Down Converters (Buck) | Maximum Operating Input Voltage < 100V

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _O (Typ) (mA)	V _{FB} (Typ) (V)	f _{SW} (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectifier	Industrial	Package	Notes
S MP2462	4.2	32	2	0.1	0.6	800	-	-	✓	✓	-	TSOT23-6	Adj. output from 0.6V, ±1% FB accuracy at full temp, low I _O , output discharge, low-dropout mode
MP4410	4.5	36	0.1	0.0	1	Prog	✓	-	-	✓	-	QFN-10 (3x3)	Low I _O
MP4568	4.5	45	0.1	0.0	1	Prog	-	✓	-	✓	✓	QFN-10 (3x3)	Prog. peak-current limit
MP4569	4.5	75	0.3	0.0	1	1000	✓	✓	-	✓	✓	QFN-10 (3x3), SOIC-8E	Integrated high-side/low-side
MP2420	4.5	75	0.3	0.0	1	Prog	✓	✓	-	✓	✓	TSSOP-16	Watchdog, step-down
MPQ2459	4.5	55	0.5	0.7	0.8	480	-	-	-	-	✓	TSOT23-6	Built-in power MOSFET
MPQ2456	4.5	50	0.5	0.7	0.9	1200	-	-	✓	-	✓	TSOT23-6	OCP
MP4566	4.5	36	0.6	0.0	1	1000	-	-	✓	-	-	QFN-8 (2x3)	-
MPQ2451	3.3	36	0.6	0.1	0.8	2000	-	-	✓	-	✓	TSOT23-6L, QFN-6L	-
MP2454	3.3	36	0.6	0.1	0.8	2300	✓	✓	-	-	✓	QFN-10 (3x3)	External frequency sync
MP2457	5	36	0.6	0.1	0.8	2000	-	-	✓	✓	✓	TSOT23-6	-
MP2460	4.5	45	0.6	0.2	0.8	1600	-	-	✓	✓	-	TSOT23-6	LDO mode, 98% max duty
MP4562	4.5	60	2	0.0	0.8	2500	-	✓	✓	-	✓	TSOT23-8	Configurable frequency
MP9572	4.5	60	2	0.0	0.8	2200	✓	✓	-	✓	✓	QFN-12 (2.5x3)	-
MP4541	10	80	0.8	0.0	1	Prog	-	-	✓	✓	✓	SOIC-8EP	High efficiency at light loads
MP4581	10	100	0.8	0.0	1	Prog	-	-	✓	✓	✓	SOIC-8EP	High efficiency at light loads
MP4582	4.5	100	2	0.0	0.8	400	✓	-	✓	✓	✓	QFN-19 (3x5)	Integrated MOSFET, low I _O , high efficiency at full loads
MP4583	4.5	100	3	0.0	0.8	400	✓	-	✓	✓	✓	QFN-19 (3x5)	Integrated MOSFET, low I _O , high efficiency at full loads
MPQ4458	3.8	36	1	0.1	0.8	Prog	-	-	-	-	-	TQFN-10 (3x3)	Integrated HS-FET
MPQ4558	3.8	55	1	0.1	0.8	Prog	-	-	✓	-	✓	QFN-10 (3x3), SOIC-8E	Current mode control
MP4431 MPQ4431	3.3	36	1	0.0	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM mode, prog. soft-start time, good EMI, low-dropout mode
MP2269	3.3	30	1	0.0	0.8	Prog	✓	✓	✓	✓	-	QFN-15 (2x3)	Current mode control, low I _O , forced PWM or auto-PFM/PWM, low-dropout mode
MPQ4459	3.8	36	1.5	0.1	0.8	Prog	-	-	✓	-	✓	TQFN-10 (3x3)	Current mode control

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectifier	Industrial	Package	Notes
MPQ2490	4.5	36	1.5	0.5	0.8	700	✓	✓	-	-	✓	SOIC-8	Prog. output current limit
MPQ4561	3.8	55	1.5	0.1	0.8	Prog	-	✓	✓	-	-	QFN-10 (3x3)	Integrated HS-FET
MP4425M MPQ4425M	4	36	1.5	0.5	0.2	2200	-	-	-	-	✓	QFN-13 (2.5x3)	PWM dimming and OCP/SCP protection, ext. freq. sync
MP9942 MP9942A	4	36	2	0.5	0.8	410	✓	-	✓	✓	-	TSOT23-8	Consumer grade, ext. freq. sync
MP4420H MPQ4420H	4	36	2	0.5	0.8	410	✓	-	-	✓	✓	TSOT23-8	Ext. frequency sync
MPQ4560	3.8	55	2	0.1	0.8	Prog	-	-	✓	-	✓	QFN-10 (3x3), SOIC-8E	AEC-Q100 qualified
MP4432 MPQ4432	3.3	36	2.2	0.0	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM mode, prog. soft-start time, good EMI, low-dropout mode
MPQ4460	3.8	36	2.5	0.1	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3)	Prog. output current
MP2560	4.5	42	2.5	0.1	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3), SOIC-8E	Current mode control
MP2565	4.5	50	2.5	0.1	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3), SOIC-8E	Integrated HS-FET
MP2496	7	36	2.5	1.6	-	350/ 250/150	-	-	-	-	-	QFN-26 (4x4)	Int. smart USB charging port, auto-detect, cable compensation
MP2499A	5	36	3	0.7	0.8	Prog	-	-	✓	✓	-	QFN-13 (2.5x3)	Current mode control, ext. freq. sync, output line drop compensation
MP4423H MPQ4423H	4	36	3	0.5	0.8	410	✓	-	-	✓	✓	QFN-8 (3x3)	External frequency sync
MP9943 MP9943A	4	36	3	0.5	0.8	410	✓	-	✓	✓	-	QFN-8 (3x3)	Consumer grade, ext. freq. sync
MP4433 MPQ4433	3.3	36	3	0.0	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM mode, prog. soft-start time, good EMI, low-dropout mode
MP4570 MPQ4570	4.5	55	3	0.5	1	Prog	✓	✓	✓	✓	✓	TSSOP-20EP	External frequency sync
MP2263	3.3	30	3	0.0	0.8	350 to 2500 (Adj)	✓	✓	✓	✓	-	QFN-15 (2x3)	Current mode control, low I_Q , forced PWM or auto-PFM/PWM, low-dropout mode
N MP8883 MPQ8883	3.5	45	3	0.6	-	Prog	✓	-	✓	✓	✓	QFN-16 (3x3)	Current mode, I ² C, OTP, ext. freq. sync
MP4462 MPQ4462	3.8	36	3.5	0.1	0.8	Prog	-	-	-	✓	✓	QFN-10 (3x3), SOIC-8E	AEC-Q100 qualified
MP4473	4.5	36	3.5	0.5	0.8	Prog	✓	✓	✓	✓	✓	QFN-20 (3x4)	High frequency
MP4430 MPQ4430	3.3	36	3.5	0.0	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM mode, prog. soft-start time, good EMI, low-dropout mode
N MP4423C MPQ4423C	4	36	6	0.8	0.8	420/2200	-	-	✓	✓	✓	QFN-16 (3x4)	Frequency spread spectrum, PFM/PWM mode, ext. sync, output discharge
MP4255 (Dual)	4	36	6 or 2x 3A	0.3	0.4	250/420/ 1100/2100	-	-	✓	✓	✓	QFN-21 (4x5)	Dual-channel, frequency spread spectrum, I ² C
MP2491C	4	32	6	0.5	0.5	490	✓	-	✓	✓	-	QFN-13 (2.5x3)	32V, adjustable current limit, V_{OUT} scaling control
MP2491N	4	32	6	0.2	0.5	540	✓	✓	✓	✓	-	QFN-13 (2.5x3)	High light-load efficiency
MP8675	4.5	42	6	0.9	0.8	420	-	-	-	✓	-	SOIC-8E	Synchronizable gate driver, ext. freq. sync

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectifier	Industrial	Package	Notes
N	MP8856 MPQ8856	4	36	5	0.4/0.2	-	450/1000	✓	-	-	✓	✓	QFN-16 (3x3)	140W, 100% duty cycle, I ² C
S	MP8857 MPQ8857	4	36	5	0.5/0.1	0.33/ 0.5/2	450/1000	✓	-	-	✓	✓	QFN-21 (4x4)	100% duty cycle, I ² C
N	MP8880A MPQ8880A	4	60	4.5	-	-	150 to 2200	✓	-	-	✓	-	QFN-20 (4x5)	Digital prog. sync, AEC-Q100 qualified
	MP8886	4	45	6	0.15/ 0.012	-	150 to 2200	✓	-	✓	✓	✓	TQFN-26 (5x5)	Dual 3A/single 6A output; digitally configurable; internal, 62mΩ/34mΩ, low- $R_{DS(ON)}$ MOSFETs
S	MP8887 MPQ8887	4.5	65	6	0.5/0.1	0.1/0.5/ 1.6/2	200 to 1000	✓	-	-	✓	-	QFN-24 (4x5)	65V, 6A, I ² C, configurable frequency, adjustable OCP
S	MP8877	4.5	65	6	0.2	0 to 2.047	200/300/ 400/600	✓	-	✓	✓	-	QFN-24 (4x5)	Digitally prog. FSS, high-efficiency sync buck converter

Step-Down Controllers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_O (Typ) (mA)	V_{FB} (V)	f_{SW} (kHz)	Soft Start	Package	Notes
	MP2910	5	12	2.7 (I _{CC} UG and LG Open)	0.8	300	Int	SOIC-14, SOIC-8E	Sync PWM DC/DC linear, power good indicator for Intel, Grantsdale FSB_VTT power sequence
	MP2905	3	28	0.6	0.6	200 to 500 (Adj)	Ext	MSOP-10	Ideal for applications above 15A
	MP9928	4	60	0.8	0.8	Adj via Ext R_{FREQ}	Ext	TSSOP-20EP, QFN-20 (3x4)	Current mode, duty cycle up to 99.5%, prog. freq.
	MP9929	7	100	0.6	0.8	100 to 1000 (Adj)	Ext	QFN-26 (4x6)	Adj. freq., 180° out-of-phase SYNCO, selectable cycle-by-cycle current limit, prog. CCM and AAM pulse-skip mode, low-dropout operation
S	MP9931	7	100	0.5	0.8	100 to 1000 (Adj)	Ext	QFN-23 (4x4)	COT control, strong driver ability, V_{OUT} is up to 80V, selectable USM/PSM/FCCM
	MP2908A	4	60	0.8	0.8	100 to 1000 (Adj)	Ext	TSSOP-20EP, QFN-20 (3x4)	Industrial grade, PG, prog. CCM, AAM mode, pulse-skip mode
S	MP4201	4.8	100	0.1	2.66/1.5/0.156	200 to 1000 (Adj)	Ext	QFN-32 (5x6)	25A, I ² C, battery charging, adjustable OCP for USB EPR power delivery
S	MP9932N	4.5	100	0.4	0.17/0.5/0.667/ 1.2/1.6	100 to 1000 (Adj)	Ext	QFN-23 (4x4)	30A, I ² C, integrates two GaN FET gate drivers, 99% maximum operating duty cycle

Step-Up Charge Pumps

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_O (Typ) (mA)	f_{SW} (kHz)	Industrial	Package	Notes
MP9361	2.8	5	0.1	2	1350	✓	TSOT23-6	Fixed 5V _{OUT} , high performance, regulated, int. soft start, OCP, SCP, inrush current limit
MP9218	2.8	5	0.1	2	1350	-	QFN-6 (2x2)	Fixed 5V _{OUT} , high performance, regulated

Step-Up Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	f_{SW} (kHz)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	Soft Start	Package	Notes
S MP3446U	6	55	-	2500	-	-	Int	QFN-21 (5x5)	Wide input, current mode, synchronous
MP3910	5	35	1	30 to 400 (Adj)	0.288	1.237	Ext	MSOP-10	Peak current mode, PWM, prog. frequency, ext. SS, light load
MP3910A	9	14	1	30 to 400 (Adj)	0.4	1.237	Ext	SOIC-8E	Peak current mode, PWM, prog. frequency, ext. SS, light load
MP6002	10	100	3	550	1	1.21	Int	SOIC-8E	Flyback/forward DC/DC converter, 30W, int. 150V power switch
MP6001	10	100	2	550	1	1.21	Int	SOIC-8E	Flyback/forward DC/DC converter, 15W, int. 150V power switch
MP6003	10	100	-	550	1	1.21	Int	SOIC-8E	Monolithic flyback/SEPIC DC/DC converter

Step-Up Converters (Boost)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_O (Typ) (mA)	V_{OUT} Range (V)	f_{SW} (kHz)	Package	Notes
MP3439	2.7	5	3.5	0.0	5 to 5.5	2000	WLCSP-20 (1.75x2.1)	Dual-phase, ultra-small
N MP28600	0.4	5.5	1	0.0	2.5 to 5.5	1000	SOT563	Ultra-low I_O
MP3209	2.5	6	0.4	0.6	3 to 22	1400	TSOT23-5, UTQFN-8 (2x2)	Int. comp, tiny inductors and capacitors (+J168:J192) can be used
MP3217	2.5	6	0.5	0.5	V_{IN} to 36	670	TSOT23-6	Cycle-by-cycle OCP, UVLO, thermal shutdown, P2P with the MAX5025-5028
MP1400	2.7	7	0.6	0.2	-0.9 to -6	1500	CSP-8 (0.8x1.6)	Output adj. from -0.9V to -6V, very small size
MP5418	2.3	5	0.2	0.2	0 to V_{IN}	30 to 550	QFN-10 (1.8x1.4)	Dual output, negative charge pump, adj. regulator
MP3416	0.8	5.5	1	0.0	1.8 to 5.5	1500	TSOT23-8, QFN-8 (1.5x2.2)	Output disconnect, down mode, sync
MP3120	0.8	5	1.2	0.5	2.5 to 5	1100	TSOT23-6	Output disconnect, LDO mode, sync
MP3430	2.7	5.5	1.2	0.3	2.7 to 90	1300	QFN-16 (3x3)	APD current monitoring (1:10 or 1:2 ratio) with 5% accuracy and 50ns response time, prog. APD current limit and protection, int. comp and SS
MP3410	1.8	6	1.3	0.4	2.5 to 6	550	TSOT23-5	Output disconnect, sync
MP3414	0.6	4	1.8	0.0	1.8 to 4	1000	TSOT23-8	Output disconnect, sync
MP1541	2.5	6	1.9	0.6	3 to 22	1300	TSOT23-5	Internal current limit

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{OUT} Range (V)	f_{SW} (kHz)	Package	Notes
MP3438	2.7	16	2	0.3	2.7 to 16	1400	SOT583	COT control, internal soft start, selectable PSM/USM/FCCM, sync.
MP1542	2.5	22	2.6	0.7	3 to 22	700/1300	MSOP-8	Prog. soft start
MP3414A	1.8	5.5	3	0.0	1.908 to 5.5	1000	TSOT23-8	Wider input version of the MP3414, sync
MP3213	2.5	22	3.5	0.7	3 to 22	700/1300	MSOP-8E	Prog. soft start
MP1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN-16 (3x3), TSSOP16	Triple output charge pump, LDO for TFT bias
MPQ1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN-16 (3x3)	Triple output charge pump, LDO for TFT bias, industrial grade
MP3415	1.8	5.5	4.2	0.0	1.98 to 5.5	1000	QFN-12 (2x2)	Output disconnect, sync
MP3425	3.1	22	5	0.7	3.1 to 55	300 to 2000 (Prog)	QFN-14 (3x4)	Prog. UVLO and EN hysteresis, industrial grade
MP3421	1.9	5.5	5.5	0.0	2.5 to 5.5	600	QFN-14 (2x2)	Output disconnect, sync
MP3422	1.9	5.5	6.5	0.0	2.5 to 5.5	600	QFN-14 (3x4)	Output disconnect, sync
MP3426	3.2	22	8.5	0.7	3.2 to 35	300 to 2000 (Prog)	QFN-14 (3x4)	Prog. UVLO, soft start, UVLO hysteresis, industrial grade
MP3423	1.9	5.5	9	0.0	2.5 to 5.5	600	QFN-14 (2x2)	Output disconnect, sync
MP3424A	2	5.5	9.5	0.3	3 to 5.5	580	QFN-14 (2x2)	Prog. current, output disconnect, sync
MP3437	2.7	16	10	0.1	V_{IN} to 16	600	TSOT23-8, QFN-10 (2x2.5)	PSM, FCCM, and USM in light load
MP3432	2.7	13	10	0.5	V_{IN} to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. switching peak current limit, auto pass-through mode in PSM when $V_{IN} > V_{OUT}$, sync
MP3429	0.8	13	21.5	0.5	1 to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. UVLO and hysteresis, sync
MP3431	2.7	13	21.5	0.5	1 to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. input current limit, UVLO, and hysteresis, sync
MP3433	2.8	20	20	0.4	2.8 to 22	700	QFN-16 (3x3)	Dynamic V_{OUT} control
MP3428A	3	20	25	0.7	3 to 22	600	QFN-22 (3x4)	Input disconnect, ext. soft start, prog. UVLO and hysteresis, sync

Step-Up Energy Storage (Dying Gasp)/Power Backup Management PMICs

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{STRG} (Max) (V)	I_{LIMIT} Charging (A)	I_{LIMIT} Dumping (A)	I_Q (Typ) (mA)	V_{FB} (V)	Package	Notes
MP5505E	2.7	7	30	0.5	6	2 (Max)	0.801/ 0.795	QFN-20 (3x4)	Input current limit, adj. dV/dt slew rate, reverse-current protection
MP5455	2.7	7	30	0.5	5	2 (Max)	0.8	QFN-20 (3x4)	For USB Type-C HDMI comm. interface reference design
MP5507E	2.7	7	30	0.5	5	2 (Max)	0.8	QFN-16 (2.5x3.2)	Bus PG indicator, adj. dV/dt slew rate for VB start-up, 1.2MHz buck release mode f_{SW} , smaller package version of the MP5505A
MP5512	4	18	40	0.1	5	1	0.8	QFN-28 (4x5)	Prog. storage and release voltage, hot-swap management unit for PCIe
MP5515	2.8	18	32	0.5 to 2	6.5	3 (Max)	0.8	QFN-30 (5x5)	Prog., high-efficiency, lossless energy storage and power backup management unit for SSD and HDD applications
N MP5516N	2.7	16	28	Adj	5	-	0.6/1.2	QFN-25 (4x4)	Power loss protection IC with e-fuse
MP5520	2.7/2.7	16/5.7	36	0.05 to 0.7	1/3/5/7	-	0.8	QFN-37 (5x6)	Dual e-fuses and power-sharing function

Step-Up LNB

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Standard	I_{OUT} (Max) (A)	22KHz Tone Signal Generated	Package	Notes
MP8124	8	14	DiSEqC™ 1.x	0.5	Ext	QFN-14 (2x3)	Converter with int. switch, low-noise LDO output, line drop compensation, selectable V_{OUT} comp., adj. SS output
MP8128	8	14	DiSEqC™ 1.x and DiSEqC™ 2.x	1	Selectable Int or Ext	QFN-20 (3x3)	I²C, low-noise LDO output, selectable V_{OUT}

Buck-Boost

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_O (Typ) (mA)	V_{FB} (V)	f_{SW} (kHz)	Sync	Package	Notes
MP8860	2.8	22	1	1	-	500	✓	QFN-16 (3x3)	1A I_{OUT} , 4-switch converter, I ² C, 1V to 20.47V V_{OUT} range
MP8862	2.8	22	2	1	-	500	✓	QFN-16 (3x3)	2A I_{OUT} , 4-switch converter, I ² C, 1V to 20.47V V_{OUT} range
MP2155	2	5.5	2.2	0.08	0.496	1000	✓	QFN-10 (3x3)	Power-save mode, load disconnect, 1.5V to 5V V_{OUT} range
MP28160	2.5	5.5	2.5	0.22	-	1800	✓	CSP-12 (1.4x1.8)	0.5A I_{OUT} converter, fixed 3.3V V_{OUT}
MP28163	2	5.5	2.9	0.07	0.496	1100	✓	QFN-10 (3x3)	Power-save mode, load disconnect, 1.5V to 5V V_{OUT} range
MP28167-A	2.8	22	3	1	1	500/750 (Selectable)	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch integrated converter, 1V to 20.47V V_{OUT} range with FB pin, I ² C
MP28167-B	2.8	22	3	1	1	500/750/1000/1250 (Selectable)	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch, int. converter, 1V to 20.47V V_{OUT} range with FB pin, I ² C
MP28167	2.8	22	3	1	-	500	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch converter, fixed 5V V_{OUT}
MP8859	2.8	22	3	1	-	500	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch converter, I ² C, 1V to 20.47V V_{OUT} range
MP28162	1.2	5.5	1.5	0.025	0.5	2000	✓	WLCSP-15 (1.3x2.1)	Ultra-small
MP28164	1.2	5.5	4.2	0.025	0.5	2000	✓	QFN-11 (2x3)	Power-save mode, load disconnect
MP4245	4	36	5	0.18	0.1/0.4/0.72/1.6	250/350/420 (Selectable)	✓	QFN-21 (4x5)	36V, 4-switch USB PD solution converter, selectable spread spectrum, I ² C and 2-time prog. memory
MP2980	4	24	Prog	0.07/0.055	Prog	200/300/400/600 (Selectable)	✓	QFN-32 (4x4)	4-switch controller, I ² C, 3V to 20V V_{OUT} range
MP2984	5	36	Prog	0.07/0.055	Prog	200/300/400/600 (Selectable)	✓	QFN-32 (4x4)	USB Type-C PD controller, I ² C, <50mA step current limit adj. via IPWM pin, 3V to 20V V_{OUT} range
MP4247 (Hybrid)	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/600	✓	QFN-20 (3x5)	36V, 100W, int. low-side memory MOSFETs, I ² C
MP4248 (Hybrid)	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/580 (Selectable)	✓	QFN-20 (3x5)	36V, 140W, int. low-side memory MOSFETs, I ² C, high-side current sense, configurable input UVLO
MP28167-N	2.8	22	3	1	1	500/750/1000/1250 (Selectable)	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch, int. buck-boost converter, PG indication
MP4246	4	22	9/13.2	0.9/0.13	0.33/0.5/2	280/420/600/1000 (Selectable)	✓	QFN-19 (4x5)	6A I_{OUT} , 4-switch integrated converter, 1V to 22V V_{OUT} range, I ² C
MP4235	3	36	9/13.2	0.9/0.13	0.33/0.5/2	280/420/600/1000 (Selectable)	✓	QFN-19 (4x5)	6A I_{OUT} , 4-switch integrated converter, 1V to 24V V_{OUT} range, I ² C
MP4236	2.8	36	12	0.35/0.28/0.05	0.3/0.5/1.2/2	280/420/600/1200/2100 (Selectable)	✓	QFN-18 (3x4)	8A I_{OUT} , 4-switch integrated converter, 1V to 26V V_{OUT} range, I ² C

LDO

LDO

Part Number	V_{in} (Min) (V)	V_{in} (Max) (V)	I_{out} (mA)	I_o (Typ) (μ A)	Load Regulation (%mA)	PSRR at 1kHz (dB)	V_{FB} (V)	Dropout Voltage (mV)	Package	Notes
MP2000	1.4	6	150	65	0.0	50	0.5	250 (I_o : 100mA) 300 (I_o : 150mA)	TSOT23-5	Low-voltage input (1.35V to 6V)
MP8801	2.7	6.5	150	125	0.0	70	1.2	150 (I_o : 150mA)	TSOT23-5	Low noise, excellent for RF applications, low cost
MP8802	2.7	6.5	250	125	0.0	70	1.2	230 (I_o : 250mA)	TSOT23-5	Excellent for RF applications, low cost
MP20056	2.5	5.5	250	150	0.0	63	0.8	100 (I_o : 250mA)	QFN-8 (2x2), TSOT23-5	Fixed output, current limiting, thermal protection
MP20041	2.5	6	300 (2x)	114	0.0	65	-	75 (I_o : 100mA) 220 (I_o : 300mA)	QFN-8 (2x2)	Dual fixed output, P2P with the RT9012
MP2002A	1.4	6.5	500	100	0.0	26	0.5	290 (I_o : 500mA)	QFN-8 (2x3)	Adj. V_{OUT} , PG and EN pins
MP8904	2.5	6.5	500	100	0.0	26	0.5	300 (I_o : 500mA)	QFN-8 (2x3)	Power good output, industrial grade
MP20045	2.5	5.5	1000	110	0.0	56	1.5	140 (I_o : 1000mA)	QFN-8 (3x3), SOIC-8E	High input/output current with fast response, fixed and adj. +0252 V_{OUT}
MP20051	2.5	5.5	1000	110	0.0	63	0.8	140 (I_o : 1000mA)	QFN-8 (3x3), SOIC-8E (4.9x6)	-
MP20046	2.7	5.5	2000	75	0.0	70	-	210 (I_o : 2000mA)	SOIC-8E, QFN-10 (3x3)	High input/output current with fast response
MP20073	1.3	6	2000	-	-	-	-	-	MSOP-8E	DDR2/3 termination regulator
MP20075	1.3	3.6	3000	-	-	-	-	-	MSOP-8E	DDR2/3/4 termination regulator, $V_{DRV} = 3.3V$

High-Performance, Low-Dropout Linear Regulators

Part Number	V_{in} (Min) (V)	V_{in} (Max) (V)	I_{out} (mA)	I_o (Typ) (μ A)	Load Regulation (%mA)	PSRR at 1kHz (dB)	V_{FB} (V)	Dropout Voltage (mV)	Package	Notes
MP2016	4	42	30	12	0.0	50	1.2	700 (I_o : 30mA)	QFN-8 (2x3), TSOT23-5	Ideal for automotive applications
MP2015A	2.5	24	150	3.3	0.0	41	1.2	700 (I_o : 150mA)	TSOT23-4, QFN-6 (2x2), QFN-8 (3x3)	EN pin
MP2019	3	40	300	10	0.0	45	1.3	420 (I_o : 300mA)	SOIC-8EP	Industrial grade
MP2014	3	40	500	10	0.0	45	-	750 (I_o : 500mA)	TO252-5	Low I_o
MP2018	3	16	500	10	0.0	45	-	750 (I_o : 500mA)	TO252-5	Low I_o , fixed V_{OUT} , power good
MP2005	1	5.5	800	100	0.0	65	0.5	70 (I_o : 800mA)	QFN-8 (2x3)	Fast transient, 48dB PSRR at 1MHz

Supervisory

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _D (Typ) (μA)	Threshold Accuracy (%)	Reset Threshold Accuracy (%)	Delay Time (ms)	Package	Notes
MP6400	1.8	6	1.6	1	1	2.1 to 10000	QFN-10 (3x3)	Power-save mode, load disconnect
MPQ6411	4.8	5.2	-	-	-	-	QFN-10 (3x3)	Power-save mode, load disconnect
MP6420	3.6	18	3	0.5	-	3000 to 4600	TSOT23-8	Battery protection IC for two 3-series cell Li-ion, int. protective MOSFET, PTC interface
MP6412	2.2	12	1	-	-	-	QFN-10 (1.4x1.8)	Ultra-low I _Q load switch controller, reset timer

MOSFET Drivers

Half-Bridge Gate Drivers

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Bootstrap Supply (Max) (V)	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn-On Delay (ns)	Turn-Off Delay (ns)	Package	Notes
MP18024	9	16	100	3	4.5	15	9	20	20	SOIC-8E	4A, high frequency
MP1906	10	16	80	0.4	1	50	30	80	80	SOIC-8	High performance
MP1907	4.5	18	100	2.5	3.5	12	9	18	20	QFN-10 (3x3)	Overlap protection and OTP function for half-bridge driver
MP1907A	4.5	18	100	2.5	3.5	12	9	18	20	QFN-10 (3x3)	No overlap protection function for independent MOSFET drive logic
N MP1907B	4.5	18	100	2.5	3.5	12	9	18	20	QFN-10 (3x3)	No OTP function for power supply applications with additional OTP
N MP1907L	4.5	18	100	2.5	3.5	12	9	18	20	QFN-10 (3x3)	No OTP and overlap protection for power supply applications with independent MOSFET drive logic and additional OTP
MP18021A	9	18	100	1.5	2.5	12	9	16	16	SOIC-8E, QFN-8 (3x3)	High frequency, industrial grade
MP18021	9	18	100	1.5	2.5	12	9	16	16	SOIC-8EP, QFN-8 (3x3)	High frequency, N-channel MOSFET with 1ns matching delay
MP1909	4.5	12	50	2	4	10	6	110	30	SOT583	Low I _Q , supports 100% duty, 30V, high frequency
MP1911	2.5	16	-	-	-	30	30	270	350	SOT583	1A, H-bridge solenoid valve driver
S MP1916	4.5	5.5	95	1.7	5.2	10	3	17	17	WLCSP-12L	5A GaN driver
MP1917	8	17	115	2.6	4.5	15	15	20	20	QFN-8 (4x4)	105V, 4A, high frequency
MP1917A	8	15	115	2.6	4.5	15	15	20	20	QFN-10 (4x4)	100V, 4A, high frequency
MPQ1918	3.6	5.5	100	1.6	5	5	3	20	20	FCQFN-14 (3x3)	5A, automotive GaN driver
MP1918	3.6	5.5	100	1.6	5	5	3	20	20	FCQFN-14 (3x3)	5A, industrial GaN driver
S MPQ1919	4.5	5.5	100	2	5	5	3	20	20	QFN-16 (3x3)	5A, automotive GaN driver with active protection

PMICs & Multiple Outputs

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{OUT} (A)	f_{SW} (kHz)	Package	Notes
MP28300	2	5.5	Buck: 0.8/1/1.2/1.5/ 1.8/2.5/3.3 LDO: 1.3/1.8/3.3	-	0.3	1500	QFN-12 (2x2)	Ultra-low 500nA I_Q , 300mA buck + 100mA LDO, prog. V_{OUT} via CTRL, COT, PG
MP28310	2	5.5	Buck: 1.2/1.5/1.8/2.5/ 2.8/3/3.3 LDO: 1.8/2.8/3	-	0.3	1500	CSP-12 (1.2x1.6)	Ultra-low 500nA I_Q , ultra-small package, 300mA buck + 100mA LDO, prog. V_{OUT} via CTRL, COT, PG
MP28301	2	5.5	Buck: 0.8/1/1.2/1.5/ 1.8/2.5/3.3 LDO: 1.2/2.5/3	-	0.7	1500	QFN-12 (2x2)	Ultra-low 500nA I_Q , 700mA buck + 100mA LDO, prog. V_{OUT} via CTRL, COT, PG
MP5408	6	36	5.1/5.17/5.3	-	USB 1: 3 USB 2: 3	Prog	QFN-26 (5x5)	Integrated, smart, dual USB charging ports, auto-detection, supports USB Type-C 5V at 3A DFP mode
MP5403	2.7	6	Ch 1: 0.9/1.1/2.5/2.85 Ch 2: 0.9/1.2/1.8/2.5	0.6	Ch 1: 3.5 Ch 2: 2.5	1500	UTQFN-20 (2.5x3)	Configurable mini PMIC, two buck converters, one load switch (3A)
MP5403B	2.7	6	0.6 to 6	0.6	Ch 1: 5 Ch 2: 4	1500	UTQFN-20 (2.5x3)	Mini PMIC, dual peak buck converter, one load switch (2A)
MP5416	2.8	5.5	Prog	Prog	Prog Buck 1: 4.5 Buck 2: 2.5 Buck 3: 4 Buck 4: 2	Prog	QFN-28 (4x4)	I^2C , memory, prog. $V_{OUT}/f_{SW}/I_{SW}$ via I^2C /memory, config. mini PMIC, four buck converters (4.5A/4A/2.5A/2A), four 300mA LDOs, one 10mA RTC LDO
MP5418	2.3	5	V_{OUT1} : 0 to $-V_{IN}$ V_{OUT2} : 0 to $-CTL$	-	0.2	30 to 550	QFN-10 (1.4x1.8)	Negative charge pump, adj. negative regulator
MP5470	4	16	0.55 to 7	Prog	Prog Buck 1: 3 Buck 2: 3 Buck 3: 2 Buck 4: 2	800	QFN-22 (3x4)	I^2C , four buck converters, parallel mode for higher current, one GPIO pin
MP5470B	4	16	0.55 to 7 or $V_{IN} \times D_{MAX}$ (if $V_{IN} < 7V$)	V_{FB1} : 0.7 V_{FB2} : 0.78 V_{FB3} : 0.78 V_{FB4} : 0.78 V_{FB5} : 0.78	Buck 1: 3 Buck 2: 3 Buck 3: 2 Buck 4: 2	500 to 1600 (Prog)	QFN-22 (3x4)	Four buck converters (3A/3A/2A/2A), flexible system settings via the I^2C and memory
MP5475	3	16	Prog	V_{FB1} : 1.1 V_{FB2} : 1.1 V_{FB3} : 1.1 V_{FB4} : 1.8	Prog Buck 1: 6 Buck 2: 6 Buck 3: 6 Buck 4: 6	500 to 2000	QFN-35 (5x5)	Fully integrated, 12V, I^2C , telemetry, flexible system configuration
N MP5417	2.8	5.5	Prog	Prog	Prog Buck 1: 4 Buck 2: 2 Buck 3: 4 Buck 4: 2	1200 to 1800	QFN-28 (4x4)	I^2C , memory, prog. $V_{OUT}/f_{SW}/I_{SW}$ via I^2C /memory, four buck converters, two LDOs, two GPIO pins
N MP5413	2.7	5.5	Prog	Prog	Prog Buck 1: 3 Buck 2: 2 Buck 3: 3 Buck 4: 2	1200 to 1800	WLCSP-38 (2.7x3.1)	Ultra-small package, sleep mode control, I^2C , memory, prog. $V_{OUT}/f_{SW}/I_{SW}$ via I^2C /memory, four buck converters, two LDOs, two GPIO pins
MP5461	V_{IN1} : 4.2 V_{IN2} : 2.5	V_{IN1} : 22 V_{IN2} : 5.5	3.3	-	2.5	1800	CSP-12 (1.4x1.8)	Dual-input O-ring switches, power path selection input/indication, fast SCP on OROUT, fast reverse block within 2 μ s on OR _{OUT} , output OVP for buck-boost

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{OUT} (A)	f_{SW} (kHz)	Package	Notes
N	MP5423	25	100	Buck: 14 LDO 1/2: 5/3.3	-	0.3	200	SOIC-8EP (4.9x6)	300mA buck converter, two LDOs (100mA/40mA)
	MP5424	2.7	5.5	Buck 1/2/3/4: 0.4 to 3.58 (Adj) LDO 2/4/5: 0.65 to 0.3587 (Adj)	$V_{FB1/2/3/4}$: 0.4 to 3.58 (Adj)	Prog Buck 1: 2 Buck 2: 2.5 Buck 3: 4.5 Buck 4: 4.5	1100 to 2750 (Prog)	QFN-26 (3.5x4.5)	Prog. V_{OUT} via I ² C/memory, config. mini PMIC, three LDOs (0.3A), one load switch (3A), POR output
N	MP8855	2.7	22	Buck-Boost: 0.6 to 22 Buck: 0.6 to V_{IN} Boost (3x3): 3.7 to 22 Boost (3x4): 2.7 to 22	Prog	Prog Buck 1: 5 Buck 2: 5	1000	QFN-21 (4x4)	Five-topology selection via the PSEL pin, one buck-boost, two bucks, one interleaving buck, one interleaving boost, one buck + one boost, memory-prog. parameters
	MPQ7920-AEC1	2.7	5.5	0.4 to 3.58 or V_{IN}	V_{FB1} : 1.375 V_{FB2} : 1.35 V_{FB3} : 1.375 V_{FB4} : 0.675	Prog Buck 1: 2 Buck 2: 2.5 Buck 3: 4.5 Buck 4: 4.5	1800 to 2400	QFN-26 (3.5x4.5)	RTC-dedicated LDO+, four low-noise LDOs, I ² C two-time prog. MTP
	MP5479	2.7	5.5	Buck 1/2/3: 0.4V to 3.58V/12.5mV Step, or 0.4V to 2.2V/7.4mV Step Buck 4: 0.4V to 3.58V/12.5mV Step LDO: 0.65V to 3.58V/12.5mV Step	V_{FB1} : 1.375 V_{FB2} : 1.35 V_{FB3} : 1.375 V_{FB4} : 0.675	Prog Buck 1: 2 Buck 2: 2.5 Buck 3: 4.5 Buck 4: 4.5	1100 to 2750 (Prog)	QFN-26 (3.5x4.5)	Five LDOs, flexible system settings via I ² C and MTP
	MP8891	4	16	0.55 to 7	0.55 to 1.82 (Prog)	Prog Buck 1: 3 Buck 2: 3 Buck 3: 2 Buck 4: 2	500k to 1.6M via I ² C	QFN-22 (3x4)	I ² C, parallel mode for higher current, one GPIO pin
	MP8892	4	16	0.55 to 7	0.55 to 1.82 (Prog)	Prog Buck 1: 4.5 Buck 2: 2 Buck 3: 2 Buck 4: 1	500k to 1.6M via I ² C	QFN-22 (3x4)	I ² C, parallel mode for higher current, one GPIO pin
	MP5493	5	36	0.8 to 0.9 x V_{IN}	V_{FB1} : 0.8 V_{FB2} : 1.2	Dual: 2	550	TSOT23-8	Dual step-down converter for PLC mode; one chip to replace buck, boost, and LDO
S	MP5415	2.8	5.5	Buck 1: 2A DC/DC Converter Buck 2: 2A DC/DC Converter Buck 3: 2A DC/DC Converter Buck 4: 2A DC/DC Converter	Prog	Buck 1: 2 Buck 2: 2 Buck 3: 2 Buck 4: 2	Prog	QFN-28 (4x4)	I ² C, memory, prog. $V_{OUT}/f_{SW}/I_{SW}$ via I ² C/memory, config. mini PMIC, four 300mA LDOs, one 10mA RTC LDO
N	MPQ5476	5.8	15	Buck 1/2/3/4: 0.5 to 2.75	0.5 to 1.3	Prog Buck 1: 6 Buck 2: 6 Buck 3: 6 Buck 4: 6	500, 750, 1000, 1250 (Prog)	QFN-35 (5x5)	Fully integrated, 12V, I ² C telemetry, flexible system configurations
N	MP5431	4.3	5.5	Buck 1/2/3: Prog LDO: V_{OUT_1V} (0.8 to 1.2), $V_{OUT_1.8V}$ (1.7 to 2)	V_{FB1} : 1.1 V_{FB2} : 1.1 V_{FB3} : 1.8	Prog Buck 1: 5 Buck 2: 5 Buck 3: 2	750 to 2000 (Prog)	TQFN-28 (3x4)	5V, I ² C/I ² C interface for DDR5 client (JEDEC P5100)
N	MP5431C	4.3	5.5	Buck 1/2/3: Prog LDO: V_{OUT_1V} (0.8 to 1.2), $V_{OUT_1.8V}$ (1.7 to 2)	V_{FB1} : 1.1 V_{FB2} : 1.1 V_{FB3} : 1.8	Prog Buck 1: 6 Buck 2: 6 Buck 3: 2	750 to 2000 (Prog)	TQFN-28 (3x4)	5V, I ² C/I ² C interface for DDR5 client (overclocking)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{OUT} (A)	f_{SW} (kHz)	Package	Notes
N	MP5472	3	16	Buck: 0.3 to 3.8 LDO: 3.6V Max	V_{FB1P} : 0.8 V_{FB1P} : 0.8	Buck 1: 6 Buck 2: 6	500, 750, 1000, 1250 (Prog)	QFN-26 (4x4)	Fully integrated 12V, I ² C, flexible system configurations
	MP5477	4	16	Prog Buck 1/2/3/4/5: Up to 2.047 in 1mV Steps LDO: Up to 3.3 in 2mV Steps	V_{FB1} : 1.2 V_{FB2} : 0.9 V_{FB3} : 1.8 V_{FB4} : 0.5 V_{FB5} : 1.05	Buck 1: 6 Buck 2: 2 Buck 3: 2 Buck 4: 3 Buck 5: 3	Prog	QFN-41 (5x5)	One LDO, flexible system setting via I ² C
N	MPQ8894	3	16	Buck A/B/C: 0.8 to 1.435, or 0.6 to 1.235 Buck D: 1.5 to 2.135, or 2.2 to 2.835 LDO: V_{OUT_1V} (0.9 to 1.2), $V_{OUT_1.8V}$ (1.7 to 1.9)	V_{FB1} : 1.1 V_{FB2} : 1.1 V_{FB3} : 1.1 V_{FB4} : 1.8	Buck 1: 4 Buck 2: 4 Buck 3: 4 Buck 4: 4 LDO_1V: 0.05 LDO_1.8V: 0.05	500 to 1250 (Prog)	FCQFN- 35L (5x5)	12V, I ² C/I ³ C interface for DDR5 server (JEDEC P5010)
N	MPQ8895	4.25	15	Buck A/B/C: 0.8 to 1.435, or 0.6 to 1.235 Buck D: 1.5 to 2.135, or 2.2 to 2.835 LDO: V_{OUT_1V} (0.9 to 1.2), $V_{OUT_1.8V}$ (1.7 to 1.9)	V_{FB1} : 1.1 V_{FB2} : 1.1 V_{FB3} : 1.1 V_{FB4} : 1.8	Buck 1: 6 Buck 2: 6 Buck 3: 6 Buck 4: 6 LDO_1V: 0.05 LDO_1.8V: 0.05	500 to 1250 (Prog)	FCQFN- 35L (5x5)	12V, I ² C/I ³ C interface for DDR5 server (JEDEC P5000)
N	MPQ8895F	4.25	15	Buck A/B/C: 0.8 to 1.435, or 0.6 to 1.235 Buck D: 1.5 to 2.135, or 2.2 to 2.835 LDO: V_{OUT_1V} (0.9 to 1.2), $V_{OUT_1.8V}$ (1.7 to 1.9)	V_{FB1} : 1.1 V_{FB2} : 1.1 V_{FB3} : 1.1 V_{FB4} : 1.8	Buck 1: 6 Buck 2: 6 Buck 3: 6 Buck 4: 6 LDO_1V: 0.05 LDO_1.8V: 0.05	500 to 1250 (Prog)	FCQFN- 35L (5x5)	12V, I ² C/I ³ C interface for DDR5 server (JEDEC P5000)
N	MPQ8896	4.3	15	SWA/B/C: 0.8 to 1.435, or 0.6 to 1.235 SWD: 1.5 to 2.135, or 2.2 to 2.835 LDO: V_{OUT_1V} (0.9 to 1.2), $V_{OUT_1.8V}$ (1.7 to 1.9)	V_{FB1} : 1.1 V_{FB2} : 1.1 V_{FB3} : 1.1 V_{FB4} : 1.8	Buck 1: 8.5A Buck 2: 8.5A Buck 3: 10A Buck 4: 3	500 to 1250 (Prog)	FCQFN- 35L (5x5)	12V, I ² C/I ³ C interface for DDR5 server (JEDEC P5020)

Flyback

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	f_{SW} (kHz)	Package	Notes
MP6004	14	80	2.1	0.4	2.0	10 to 200	QFN-14 (3x3)	13W, integrated 180V power switch
MP6005	8	80	$0.8V \times 160mV / R_{SENSE}$	0.5	2	250	MSOP-10	Flyback/forward controller with PSR or SSR, 2A gate, 0.8A sync drivers
MP6001	10	100	2	1	1.2	-	SOIC-8E	15W, integrated 150V power switch
MP6002	10	100	4	1	1.2	-	SOIC-8E	30W, integrated 150V power switch

Fully Integrated PoE PD Solutions

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Package	Notes
MP8004	100V, 1 Ω DMOS	420	✓	802.3af	QFN-20 (4x6)	13W PoE PD interface and PWM converter
MP8007	100V, 0.48 Ω DMOS	840	✓	802.3af	QFN-28 (4x5)	13W primary-side regulated flyback without optocoupler feedback, 200kHz f_{SW}
MP8008	100V, 0.48 Ω DMOS	840	✓	802.3af/at	QFN-28 (4x5)	25.5W PoE PD interface and peak-current mode flyback controller
MP8009	100V, 0.48 Ω DMOS	840	✓	802.3af/at	QFN-28 (4x5)	Fully integrated, 802.3af/at, PoE PD interface with flyback/forward controller, 4.7ms soft-start time
MP8009A	100V, 0.48 Ω DMOS	840	✓	802.3af/at	QFN-28 (4x5)	Fully integrated, 802.3af/at, PoE PD interface with flyback/forward controller, 32ms soft-start time
MP8007H	100V, 0.48 Ω DMOS	840	✓	802.3af	QFN-28 (4x5)	13W primary-side regulated flyback without optocoupler feedback, 300kHz f_{SW}
MP8030	100V, 0.35 Ω DMOS	Prog	✓	802.3af/at/bt	QFN-32 (5x6)	High efficiency, supports forward/flyback topology
MP8017	100V, 0.5 Ω DMOS	420	✓	802.3af	QFN-19 (3x4)	802.3af, PSR or SSR, active-clamp flyback converter

PoE PSE Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{CUT}	I_{LIM}	PoE Standards Supported	FET	MPS Method	Pair Control	Operating Temperature Range (°C)	Number of PSE Ports	Package
MP3924	44	57	Prog	Prog	802.3af/at	-	DC Disconnect	-	-40 to +125	4	QFN-32 (5x5)
MP3921	44	57	Prog	Prog	802.3af/at	-	DC Disconnect	-	-40 to +125	1	QFN-32 (5x5)

DC/DC Controllers for PoE

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_O (Typ) (mA)	V_{FB} (V)	f_{SW} (kHz)	Package	Notes
MP3900	8.6	12	0.2V / R_{SENSE}	0.2	0.8	330	MSOP-8	Boost controller, 10V gate driver
MP6001	10	100	2	-	-	55 to 550	SOIC-8E	15W, integrated 150V power switch
MP6002	10	100	4	1	1.2	55 to 550	SOIC-8E	30W, integrated 150V power switch
MP6004	14	80	2.1	0.4	2.0	10 to 200	QFN-14 (3x3)	13W, integrated 180V power switch
MP6005	8	80	0.8V x 160mV / R_{SENSE}	0.5	2	250	MSOP-10	Flyback/forward with PSR or SSR, 2A gate, 0.8A sync drivers
MP3910	5	35	0.185V / R_{SENSE}	0.3	1.2	-	MSOP-10	Peak current mode boost PWM, prog. frequency, external SS, light load
MP3910A	9	14	0.185V / R_{SENSE}	0.4	1.2	-	SOIC-8	Peak current mode boost PWM, prog. frequency, external SS, light load

PoE PD Identity

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Package	Notes
MP8003A	100V, 0.48Ω DMOS	840	✓	802.3af/at	QFN-10 (3x3)	25.5W PoE PD controller
MP8001	100V, 0.8Ω DMOS	420	✓	802.3af	SOIC-8	15W PoE PD controller
MP8020	100V, 0.35Ω DMOS	Prog	✓	802.3af/at/bt	QFN-18 (3x5)	71W PoE PD controller
S MP8021	-	-	✓	802.3af/at/bt	TQFN-20 (5x5)	New PD-supported power monitor, dual PSE or adapter/PSE hitless fail-over function

Digital Regulators

Synchronous Step-Down Converter with I²C/PMBus Interface

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectification	Constant-On-Time (COT)	Package	Notes
MP8833A	2.7	5.5	1.5	1	2.5	Prog	-	✓	-	-	-	QFN-16 (2x3)	I ² C, TEC current monitor, external sync function
MP8853	2.9	18	4	0.4	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x3)	I ² C prog. FB range, int. telemetry, accurate output voltage/current, readback via I ² C
MP8861	2.9	18	6	0.4	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I ² C prog. FB range, int. telemetry, accurate output voltage/current, readback via I ² C
MP8864	4.5	21	4	0.5	0.6 to 1.87	600 to 1600	✓	✓	✓	✓	-	QFN-15 (3x3)	Prog. V_{OUT} power-save mode
MP8847	2.7	6	6	0.3	0.6	850 to 2200	✓	-	✓	✓	-	QFN-14 (2x3)	Prog. V_{OUT} power-save mode
MP8865	4.5	21	6	0.5	0.6 to 1.87	600 to 1600	✓	✓	✓	✓	-	QFN-15 (3x3)	Prog. V_{OUT} power-save mode

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_O (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync Rectification	Constant-On-Time (COT)	Package	Notes
MP8867	4.5	17	8	0.6	0.6	500 to 1500	✓	✓	✓	✓	-	QFN-14 (3x4)	Prog. V_{OUT} , power-save mode
MP8868	4.5	17	10	0.6	0.6	500 to 1500	✓	✓	✓	✓	-	QFN-14 (3x4)	Prog. V_{OUT} , power-save mode
MP8796B	4	16	30	2.5	0.6	Prog	✓	-	-	✓	✓	TQFN-25 (4x5)	Digital interface
MP8869N	2.9	18	12	0.4	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I ² C interface; high-efficiency, wide-input, synchronous buck converter with integrated telemetry; default 500kHz f_{SW}
MP8870	3	18	15	0.1	0.3 to 1.536 (Adj)	Prog	✓	✓	✓	✓	✓	QFN-21 (3x4)	I ² C interface; high performance; fast transient response; adjustable frequency, mode, current limit, and I ² C address; differential V_{OUT} remote sense
MP2421B	3.6	24	20	0.2	0.3 to 1.5 (Adj)	Prog	✓	✓	✓	✓	✓	TLGA-28 (3x4)	High efficiency, 24V/20A buck, I ² C version of the MP2421
MP2422B	3.6	24	25	0.2	0.3 to 1.5 (Adj)	Prog	✓	✓	✓	✓	✓	TLGA-36 (5x5)	High efficiency, 24V/25A buck, I ² C version of the MP2422
MP8869H	2.9	18	12	0.4	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I ² C interface; 18V, 12A, high-efficiency, synchronous, step-down converter with integrated telemetry via I ² C; default 1MHz f_{SW}

Synchronous Buck-Boost Converter with I²C/PMBus Interface

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_O (Typ) (mA)	V_{FB} (V)	f_{SW} (kHz)	Sync	Package	Notes
MP8859	2.8	22	3	1	-	500	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch, I ² C, 1V to 20.47V V_{OUT} range
MP8860	2.8	22	1	1	-	500	✓	QFN-16 (3x3)	1A I_{OUT} , 4-switch, I ² C, 1V to 20.47V V_{OUT} range
MP8862	2.8	22	2	1	-	500	✓	QFN-16 (3x3)	2A I_{OUT} , 4-switch, I ² C, 1V to 20.47V V_{OUT} range
MP28167-A	2.8	22	3	1	1	500/750 (Selectable)	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch, int. converter, 1V to 20.47V V_{OUT} range with FB pin, I ² C
MP4247 (Hybrid)	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/600	✓	QFN-20 (3x5)	100W, low-side, int. memory MOSFETs, I ² C
MP4248 (Hybrid)	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/580 (Selectable)	✓	QFN-20 (3x5)	140W, int. low-side memory MOSFETs, I ² C, high-side current sense, config. input UVLO
MP28167-B	2.8	22	3	1	1	500/750/1000/1250 (Selectable)	✓	QFN-16 (3x3)	3A I_{OUT} , 4-switch, int. converter, 1V to 20.47V V_{OUT} range with FB pin, I ² C

Isolated Products/High Power

Isolated Gate Drivers

	Part Number	Isolation Rating (kV _{RMS})	Configuration Type	# of Channels	CMTI (Min) (kV/μs)	Power Switch Type	Peak Source Current (A)	Peak Sink Current (A)	UVLO (V)	Input V _{DDI} (V)	Driver Output (Max) (V)	Package	Notes
	MP18831	2.5/3/5	Dual-Input Half-Bridge	2	100	SiC FET, IGBT, MOSFET, GaN FET	4	4	3/5/8/10/12	2.8 to 5.5	30	SOIC-16 NB, SOIC-16 WB, LGA-13	UL1577/VDE-0884-17/ CQC certified
N	MPQ18831	2.5/3/5	Dual-Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	5/8/10/12/15	2.8 to 5.5	30	SOIC-16 NB, SOIC-16 WB, SOIC-16-14 WB (3.3mm Creepage), LGA-13	UL1577/VDE-0884-17/CQC certified, AEC-Q100
	MP18851	2.5/3/5	Dual Input, Independent Dual-Channel	2	100	SiC FET, IGBT, MOSFET, GaN FET	4	4	3/5/8/10/12	2.8 to 5.5	30	SOIC-16 NB, SOIC-16 WB, LGA-13	UL1577/VDE-0884-17/ CQC certified
S	MPQ18851	2.5/3/5	Dual Input, Independent Dual-Channel	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	5/8/12	2.8 to 5.5	30	SOIC-16 NB, SOIC-16 WB, SOIC-16-14 WB (3.3mm Creepage), LGA-13	UL1577/VDE-0884-17/CQC certified, AEC-Q100
	MP18871	2.5/3/5	PWM Input Half-Bridge	2	100	SiC FET, IGBT, MOSFET, GaN FET	4	4	3/5/8/10/12	2.8 to 5.5	30	SOIC-16 NB, SOIC-16 WB, LGA-13	UL1577/VDE-0884-17/ CQC certified
N	MPQ18871	2.5/3/5	PWM Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	5/8/12	2.8 to 5.5	30	SOIC-16 NB, SOIC-16 WB, SOIC-16-14 WB (3.3mm Creepage), LGA-13	UL1577/VDE-0884-17/CQC certified, AEC-Q100
	MP18811	3/5	Single-Channel Gate Driver	1	100	SiC FET, IGBT, MOSFET, GaN FET	4	4	3/5/8/10/12	2.8 to 5.5	30	SOIC-8 NB	UL1577, VDE-0884/ CQC certified, 8-pin, single output with split output
	MPQ18811	3/5	Single-Channel Gate Driver	1	100	SiC FET, IGBT, MOSFET, GaN FET	6	10	5/8/10/12/15	2.8 to 5.5	30	SOIC-8 WB, SOIC-8 NB	UL1577, VDE-0884/ CQC certified, 8-pin, single output with Miller clamp, AEC-Q100
P	MP18842	5	Dual-Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	4/5/8/12/17	2.8 to 5.5	28	SOIC-16 WB, SOIC16-14 WB	-
P	MPQ18842	5	Dual-Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	4/5/8/12/17	2.8 to 5.5	28	SOIC-16 WB, SOIC16-14 WB	-
S	MP18847	2.5	Dual-Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	4/5/8/12/17	2.8 to 5.5	28	LGA-13 (5x5), LGA-13 (4x4)	-
S	MPQ18847	2.5	Dual-Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	4/5/8/12/17	2.8 to 5.5	28	LGA-13 (5x5), LGA-13 (4x4)	-
S	MP18844	3	Dual-Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	4/5/8/12/17	2.8 to 5.5	28	SOIC-16 NB	-

	Part Number	Isolation Rating (kV _{RMS})	Configuration Type	# of Channels	CMTI (Min) (kV/ μ s)	Power Switch Type	Peak Source Current (A)	Peak Sink Current (A)	UVLO (V)	Input V _{DDI} (V)	Driver Output (Max) (V)	Package	Notes
S	MPQ18844	3	Dual-Input Half-Bridge	2	150	SiC FET, IGBT, MOSFET, GaN FET	4	8	4/5/8/12/17	2.8 to 5.5	28	SOIC-16 NB	-
S	MPQ18900	5	Isolated Gate Driver with Advanced Protection	1	150	SiC FET, IGBT, MOSFET	2	2	12	3 to 5.5	30	SSOIC-28L	-

Isolated Power Supplies

	Part Number	Device Type	Output Power (W)	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (Typ) (V)	Integrated Transformer	Package Size: WxL (mm)	Isolation Rating (kV _{DC})	# of Outputs	Package	Notes
N	MPQ6007-AEC1	Converter	10	4.5	42	12 to 24	-	3x3	5+ (Dependent on Transformer Design)	1, Multiple Possible	QFN-11	Automotive, active clamp, primary-side regulated flyback
S	MPDQ11510GRDE-171P2-AEC1	Converter	15 to 50	20	1200	12 to 24	-	10x10	5+ (Dependent on Transformer Design)	1, Multiple Possible	QFN-22	Automotive flyback converter with integrated 1700V SiC FET and 5mm creepage
S	MPDQ11510GY-17400AEC	Converter	15 to 100	20	1200	12 to 24	-	7.85x7.5	5+ (Dependent on Transformer Design)	1, Multiple Possible	SOIC-28 WB	Automotive flyback converter with integrated 1700V SiC FET and 7.5mm creepage
	MPQ18913	Converter	6	5	35	20	-	2x2.5	5+ (Dependent on Transformer Design)	1, Multiple Possible	QFN-10	AEC-Q100, 5MHz high-frequency SiC/IGBT bias supply, automatic resonant frequency detection
N	MID3W2424	Isolated Module	3	5	35	24	✓	10x10x4.8	3	1	LGA-6	24V _{IN} , 3W, isolated power module for SiC bias supplies
S	MID6W2424	Isolated Module	6	5	35	24	✓	10x10x4.8	3	1	LGA-6	24V _{IN} , 6W, isolated power module for SiC bias supplies
N	MID1W2424A	Isolated Module	1.5	5	35	24	✓	10.3x10.3x2.5	5	1	SOIC-16 WB	24V _{IN} , automotive, 1.5W, isolated power module for SiC bias supplies
N	MIE1W0505BGY	Isolated Module	1	2.6	5.5	5/3.3	✓	10.3x10.3x2.5	3/5	1	SOIC-16 WB	5V _{IN} , 1W, automotive, isolated power module

Part Number	Device Type	Output Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Typ) (V)	Integrated Transformer	Package Size: WxL (mm)	Isolation Rating (kV _{DC})	# of Outputs	Package	Notes
MIE1W0505BGLVH	Isolated Module	1	2.6	5.5	5/3.3	✓	4x5x1.18	3	1	LGA-12	5V _{IN} , tiny package
MID1W0505AGY	Isolated Module	1	4.5	5.5	5	✓	10.3x 10.3x2.5	1.5/3	1	SOIC-16 WB	5V _{IN}
MID06W0505AGY	Isolated Module	0.6	4.5	5.5	5	✓	10.3x 10.3x2.5	1.5/3	1	SOIC-16 WB	5V _{IN}
MID06W0503AGY	Isolated Module	0.6	4.5	5.5	3.3	✓	10.3x 10.3x2.5	1.5/3	1	SOIC-16 WB	5V _{IN}
MID04W0503AGY	Isolated Module	0.4	4.5	5.5	3.3	✓	10.3x 10.3x2.5	1.5/3	1	SOIC-16 WB	5V _{IN}
MID02W0303AGY	Isolated Module	0.2	3	3.6	3.3	✓	10.3x 10.3x2.5	1.5/3	1	SOIC-16 WB	3.3V _{IN}

Digital Isolators

Part Number	Total Channel Count	# of Channels (Forward/Reverse)	Isolation Rating (kV _{RMS})	Data Rate	Propagation Delay (Typ) (ns)	Min CMTI (kV/μs)	Surge Voltage Level (V _{PK})	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Package	Notes
S MP27911	2	1/1	5	150	13	100	8000	2.5	5.5	SOIC-8 WB	High power, for industrial and medical markets
S MP27920	2	2/0	5	150	13	100	8000	2.5	5.5	SOIC-8 WB	High power, for industrial and medical markets
S MP27411	2	1/1	3.75	150	13	100	5300	2.5	5.5	SOIC-8 NB	High power, for industrial and medical markets
S MP27420	2	2/0	3.75	150	13	100	5300	2.5	5.5	SOIC-8 NB	High power, for industrial and medical markets
N MPQ27911	2	1/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-8 WB, SOIC-8 NB	Automotive
S MPQ27920	2	2/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-8 WB, SOIC-8 NB	Automotive
S MPQ27922	4	2/2	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	Automotive
N MPQ27931	4	3/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	Automotive
S MPQ27940	4	4/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	Automotive
S MPQ27933	6	3/3	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	Automotive
N MPQ27942	6	4/2	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	Automotive
N MPQ27951	6	5/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	Automotive
S MPQ27960	6	6/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	Automotive
N MP27922	4	2/2	5	150	14	100	7071	3	5.5	SOIC-16 WB	High power, for industrial and medical markets
N MP27931	4	3/1	5	150	14	100	7071	3	5.5	SOIC-16 WB	High power, for industrial and medical markets

	Part Number	Total Channel Count	# of Channels (Forward/ Reverse)	Isolation Rating (KV _{RMS})	Data Rate	Propagation Delay (Typ) (ns)	Min CMTI (kV/μs)	Surge Voltage Level (V _{PK})	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Package	Notes
N	MP27940	4	4/0	5	150	14	100	7071	3	5.5	SOIC-16 WB	High power, for industrial and medical markets
N	MP27933	6	3/3	5	150	14	100	7071	3	5.5	SOIC-16 WB	High power, for industrial and medical markets
	MP27942	6	4/2	5	150	14	100	7071	3	5.5	SOIC-16 WB	High power, for industrial and medical markets
N	MP27960	6	6/0	5	150	14	100	7071	3	5.5	SOIC-16 WB	High power, for industrial and medical markets
N	MP27622	4	2/2	5	150	14	100	7071	3	5.5	SOIC-16 WB	For general consumer and power meter markets
N	MP27631	4	3/1	5	150	14	100	7071	3	5.5	SOIC-16 WB	For general consumer and power meter markets
N	MP27640	4	4/0	5	150	14	100	7071	3	5.5	SOIC-16 WB	For general consumer and power meter markets
N	MP27633	6	3/3	5	150	14	100	7071	3	5.5	SOIC-16 WB	For general consumer and power meter markets
N	MP27642	6	4/2	5	150	14	100	7071	3	5.5	SOIC-16 WB	For general consumer and power meter markets
N	MP27660	6	6/0	5	150	14	100	7071	3	5.5	SOIC-16 WB	For general consumer and power meter markets
S	MP27220	2	1/1 (Bidirectional)	3.8	2	16	100	5000	3	5.5	SOIC-8 NB, SOIC-8 WB	For general consumer and power meter markets

Single-Output Step-Down Modules with Integrated Inductor

Synchronous (V_{IN} Max $\leq 7V$)

Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	Digital/r ² c Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
MPM3804	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	Adjustable V_{OUT} , excellent load and line regulation
MPM3804-12	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	1.2V fixed V_{OUT} , ultra-small QFN package
MPM3804-18	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	1.8V fixed V_{OUT} , ultra-small QFN package
MPM3804-25	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	2.5V fixed V_{OUT} , ultra-small QFN package
MPM3804-33	0.6	2.3 to 5.5	✓	✓	-	Internal	✓	QFN-10 (2x2x0.9)	3.3V fixed V_{OUT} , ultra-small QFN package
MPM3805	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , adjustable V_{OUT}
MPM3805-12	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 1.2V fixed V_{OUT}
MPM3805-18	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 1.8V fixed V_{OUT}
MPM3805-25	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 2.5V fixed V_{OUT}
MPM3805-33	0.6	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 3.3V fixed V_{OUT}
MPM3811	1	2.3 to 5.5	✓	-	-	Internal	✓	QFN-10 (2x2x1.6)	Peak 1.2A, ultra-small QFN package, excellent load and line regulation
MPM3814C	1	2.75 to 6	-	✓	-	Internal	✓	ECLGA-14 (2.5x2.5x1.2)	High efficiency, ultra-small package, ultra-low noise FCCM, adjustable from 0.6V
MPM3810	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , adjustable V_{OUT}
MPM3810-12	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 1.2V fixed V_{OUT}
MPM3810-18	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 1.8V fixed V_{OUT}
MPM3810-25	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 2.5V fixed V_{OUT}
MPM3810-33	1.2	2.5 to 6	✓	✓	-	Internal	✓	QFN-12 (3x2.5x0.9)	Ultra-low I_Q , 3.3V fixed V_{OUT}
MPM3822C	2	2.7 to 6	-	✓	-	Internal	✓	QFN-18 (2.5x3.5x1.6)	Ultra-low ripple, adjustable output from 0.6V, FCCM
MPM3824C	2	2.75 to 6	-	✓	-	Internal	✓	ECLGA-14 (2.5x2.5x1.2)	High efficiency, ultra-small package, ultra-low noise FCCM, adjustable from 0.6V
MPM3820	2	2.7 to 6	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.6V, ultra-low I_Q , high light-load efficiency
MPM3830	3	2.7 to 6	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	High light-load efficiency
MPM3833C	3	2.7 to 6	-	✓	-	Internal	✓	QFN-18 (2.5x3.5x1.6)	Ultra-low ripple, adjustable output from 0.6V, FCCM
MPM3834C	3	2.75 to 6	-	✓	-	Internal	✓	ECLGA-14 (2.5x2.5x1.2)	High efficiency, ultra-small package, ultra-low noise FCCM, adjustable from 0.6V
MPM3840	4	2.8 to 5.5	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Light-load efficiency, 100% duty cycle, low I_Q
MPM3860	6	2.75 to 7	-	✓	-	Int/Ext	✓	QFN-24 (4x6x1.6)	Adjustable output from 0.6V, FCCM
MPM3864	6	2.75 to 7	-	✓	-	External	✓	ECLGA-19 (3x3)	Adjustable output from 0.6V, FCCM
N MPM3816C	1	2.7 to 5.5	-	✓	-	Internal	✓	ECLGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM
N MPM3826C	2	2.7 to 5.5	-	✓	-	Internal	✓	ECLGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM
N MPM3836C	3	2.7 to 5.5	-	✓	-	Internal	✓	ECLGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM

	Part Number	I_{OUT} (A)	V_{IN} (V)		Light-Load Efficiency	Power Good	Digital/PC Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
N	MPM3846C	4	2.7 to 5.5	-	✓	-	Internal	✓	✓	ECLGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM
	MPM3812C	1	2.3 to 5.5	-	-	-	Internal	✓	✓	ECLGA-6 (1.5x2x1)	Adjustable output from 0.6V, ultra-small
S	MPM3895-25	25	3 to 7	-	✓	✓	Internal	✓	✓	ECLGA-29 (5x6x2.9)	Adjustable output from 0.5V to 4V, ultra-fast transient response
P	MPM3896-20	20	2.8 to 6	-	✓	✓	Internal	✓	✓	ECLGA-29 (5x6x2.3)	Adjustable output from 0.3V, ultra-fast transient response
S	MPM3896-30	30	2.8 to 6	-	✓	✓	Internal	✓	✓	ECLGA-29 (5x6x2.9)	Adjustable output from 0.3V, ultra-fast transient response
S	MPM3864L	6	2.75 to 7	-	✓	-	External	✓	✓	ECLGA (3x3x1.56)	Adjustable output from 0.6V, ultra-fast transient response

Synchronous ($7V < V_{IN}$ Max $\leq 24V$)

	Part Number	I_{OUT} (A)	V_{IN} (V)		Light-Load Efficiency	Power Good	Digital/PC Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM3606	0.6	4.5 to 21	✓	-	-	Internal	✓	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, fast transient response
	MPM3606A	0.6	4.5 to 21	✓	✓	-	Internal	✓	✓	QFN-20 (3x5x1.6)	PSM at light loads, adjustable output from 0.8V
	MPM3612	1	3 to 22	✓	✓	-	Internal	✓	✓	LGA (3x3x2)	Ultra-low 5 μ A I_O
	MPM3612-33	1	3 to 22	✓	✓	-	Internal	✓	✓	LGA (3x3x2)	Ultra-low 5 μ A I_O
	MPM3610	1.2	4.5 to 21	✓	-	-	Internal	✓	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, low I_O
	MPM3610A	1.2	4.5 to 21	✓	✓	-	Internal	✓	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, low I_O , power good
	MPM3620	2	4.5 to 24	✓	-	-	Internal	✓	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V
	MPM3620A	2	4.5 to 24	✓	✓	-	Internal	✓	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V
	MPM3632C	3	4 to 18	-	✓	-	Internal	✓	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, FCCM
	MPM3632S	3	4 to 18	-	✓	-	Internal	✓	✓	ECLGA-10 (3x3x1.45)	Ultra-low profile, small package, FCCM, adjustable output from 0.8V
	MPM3650	6	2.75 to 17	-	✓	-	Int/Ext	✓	✓	QFN-24 (4x6x1.6)	Adjustable output from 0.6V, high efficiency, ultra-thin
	MPM3650C	6	2.75 to 17	-	✓	-	Int/Ext	✓	✓	QFN-24 (4x6x1.6)	FCCM, adjustable output from 0.6V, high efficiency, ultra-thin
	MPM3683-7	8	2.7 to 16	✓	✓	-	Internal	✓	✓	QFN-28 (7x7x4)	Peak 10A, ultra-low ripple, ultra-fast transient response
	MPM3683-10	10	2.7 to 16	✓	✓	✓	Internal	✓	✓	LGA-29 (7x7x4.4)	-
	MPM3695-10	10	3.3 to 14	-	✓	✓	Internal	✓	✓	LGA (8x8x2)	0.5V to 5V output, parallelable up to 60A peak, ultra-thin
	MPM3683-20	20	2.7 to 16	-	✓	-	External	✓	✓	LGA-29 (7x7x4.4)	Ultra-fast transient response
	MPM3695-25	20	3 to 16	-	✓	✓	Internal	✓	✓	QFN-59 (10x12x4)	Peak 25A, 0.5V to 5.5V output, parallelable up to 50A peak
	MPM3690-20B	26	3.2 to 16	-	✓	-	Int/Ext	✓	✓	BGA (16x16x5.18)	Ultra-fast transient response
	MPM3690-30B	36	3.2 to 16	-	✓	-	Int/Ext	✓	✓	BGA (16x16x5.18)	Ultra-fast transient response
	MPM3690-50B	50	3.2 to 16	-	✓	-	Int/Ext	✓	✓	BGA (16x16x5.18)	Ultra-fast transient response
	MPM3690-50D	50	3 to 16	-	✓	✓	Int/Ext	✓	✓	BGA (16x16x5.18)	Ultra-fast transient response

	Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	Digital/I ² C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM3695-100	100	3.2 to 16	-	✓	✓	Internal	✓	BGA (15x30x5.18)	Ultra-fast transient response, low ripple, parallelable up to 800A
	MPM3698	120	4.5 to 16	-	-	✓	Internal	✓	BGA (15x30x5.18)	Ultra-fast transient response, low ripple, parallelable with the MPM3699
N	MPM3699	160	4.5 to 16	-	-	✓	Internal	✓	BGA (15x30x5.18)	Ultra-fast transient response, low ripple, parallelable with the MPM3698
S	MPM3690S-15	15	3 to 16	-	-	✓	Internal	✓	ECLGA (5x6x2.9)	Adjustable output from 0.35V to 5.5V, ultra-fast transient response
P	MPM3696-40	40	2.8 to 16	✓	✓	✓	Internal	✓	ECLGA (7x7x4.4)	Adjustable output from 0.3V to 8V, ultra-fast transient response with MCOT control
	MPM3695-20	25	3 to 16	-	✓	✓	Internal	✓	ECLGA-32 (5x6x4.4)	0.5V to 5.5V V_{OUT} range, ultra-fast transient response
P	MPM3654	6	2.75 to 17	✓	✓	-	External	✓	ECLGA-19 (3x3x1.86)	Adjustable output from 0.6V to 1.8V, DCM for high efficiency at light loads

Synchronous ($24V < V_{IN} \text{ Max} \leq 36V$)

	Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	Digital/I ² C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM3630	3	18	-	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Synchronous step-down regulator with integrated inductor
	MPM3506A	0.6	4.5 to 36	-	✓	-	Internal	✓	QFN-19 (3x5x1.6)	Adjustable output from 0.8V
	MPM3509	0.9	4 to 36	-	-	-	Internal	✓	QFN-17 (3x5x1.6)	Adjustable output from 0.8V
	MPM3510A	1.2	4.5 to 36	-	✓	-	Internal	✓	QFN-19 (3x5x1.6)	Adjustable output from 0.8V
	MPM3515	1.5	4 to 36	-	-	-	Internal	✓	QFN-17 (3x5x1.6)	Adjustable output from 0.8V
	MPM3550E	5	4 to 36	-	✓	-	Internal	✓	LGA-18 (12x12x4.2)	Metal can, ultra-low EMI, adjustable output from 1V to 12V

Synchronous (V_{IN} Max > 36V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	Digital/PC Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM3593	3	3.5 to 45	✓	✓	✓	Internal	✓	QFN-41 (6x8x1.6)	High efficiency, OTP
	MPM3530	3	4.5 to 55	✓	✓	-	External	✓	QFN-44 (12x10x4)	Continuous output, prog. f_{SW} with ext. synchronous function
S	MPM3519	10	3.3 to 36	-	✓	✓	Internal	✓	ECLGA-29 (7x7x4.4)	Low EMI
P	MPM3511	1	4.5 to 100	✓	✓	✓	Internal	✓	ECLGA (5x5x2.76)	0.8V to 20V V_{OUT} range
P	MPM3521	2	4.5 to 100	✓	✓	✓	Internal	✓	ECLGA (5x5x2.76)	0.8V to 15V V_{OUT} range
P	MPM3531	3	4.5 to 100	✓	✓	✓	Internal	✓	ECLGA (5x5x2.76)	0.8V to 20V V_{OUT} range
S	MPM3572	0.6	10 to 80	✓	-	-	Internal	✓	LGA (6x6x2)	Positive and negative 3.3V to 15V V_{OUT} range

Multiple-Output Step-Down Modules with Integrated Inductor

Synchronous (V_{IN} Max ≤ 45V)

	Part Number	I_{OUT} (A)	# of Outputs	V_{IN} (V)	Light-Load Efficiency	Power Good	Digital/PC Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM38111	Dual 1A	2	2.7 to 6	✓	-	-	Internal	✓	QFN-14 (4x4x1.6)	Ultra-low I_Q
	MPM38222	Dual 2A	2	2.7 to 6	✓	-	-	Internal	✓	QFN-14 (4x4x1.6)	Ultra-low I_Q
N	MPM3596	Dual 3A	2	3.5 to 45	-	-	✓	Internal	✓	QFN-45 (10x10x4)	Single 6A I_{OUT} , parallelable up to 36A
	MPM54304	Quad (3A, 3A, 2A, 2A)	4	3 to 16	-	✓	✓	Internal	✓	LGA-33 (7x7x2)	MTP-programmable
	MPM54504	Quad 5A	4	3 to 16	-	✓	-	Int/Ext	✓	BGA (9x15x5)	Ultra-fast transient response, low ripple
	MPM81204	Quad (12A, 12A, 5A, 5A)	4	4 to 16	-	✓	-	Internal	✓	BGA (9.5x16x4.98)	Ultra-fast transient response, low ripple
	MPM3690-20A	Dual 13A	2	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient response
	MPM3690-30A	Dual 18A	2	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient response
	MPM3690-50A	Dual 25A	2	3.2 to 16	-	✓	-	Int/Ext	✓	BGA (16x16x5.18)	Ultra-fast transient response
	MPM82504	Quad 25A	4	3 to 16	-	✓	✓	Internal	✓	BGA (15x30x5.18)	Ultra-fast transient response, low ripple, parallelable up to 800A
	MPM54322	Dual 3A	2	3 to 16	✓	✓	✓	Int/Ext	✓	ECLGA (5x5.5x1.85)	Ultra-fast transient response, ultra-low noise output
N	MPM54522	Dual 6A	2	3 to 16	✓	✓	✓	Int/Ext	✓	ECLGA (5x6.5x2.76)	Ultra-fast transient response, ultra-low noise output
	MPM54524	Quad 5A	4	4 to 16	-	✓	✓	Int/Ext	✓	ECLGA (8x8x2.9)	Ultra-fast transient response

	Part Number	I _{OUT} (A)	# of Outputs	V _{IN} (V)	Light-Load Efficiency			Power Good	Digital/I ² C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	MPM54532	Dual 6A	2	3.3 to 16	✓	✓	✓	Int/Ext	✓		ECLGA (5x5.5x1.85)		Ultra-fast transient response, ultra-low noise output
P	MPM3599	Dual 12A	2	6 to 45	-	✓	✓	Internal	✓		BGA (15x30x5.18)		Ultra-fast transient response, low ripple
	MPM54313	Triple 3A	3	4 to 16	-	✓	✓	Int/Ext	✓		BGA (8x9x2.58)		Ultra-low noise and ripple, ideal for optical port power

mEZ Power Modules

Boost | (V_{IN} Max < 6V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_o (μA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVL0/OTP)	Package	Notes
	mEZD41501A-A	1	2.7 to 4.2	5	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
	mEZD41502A-A	2	2.7 to 4.2	5	-	-	-	Int	OTP	SiP-6 (27x20)	High efficiency
	mEZD41503A-A	3	2.7 to 4.2	5	-	-	-	Int	OTP	SiP-6 (27x20)	High efficiency

Boost | (V_{IN} Max ≥ 6V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_o (μA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVL0/OTP)	Package	Notes
	mEZD41501A-B	1	2.7 to 10	12	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
	mEZD41502A-B	2	2.7 to 10	12	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
	mEZD41502A-C	2	3.4 to 13	15	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency

Buck | (V_{IN} Max $\leq 24V$)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_a (μA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD71201A-A	1	4.5 to 24	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-B	1	4.5 to 24	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-C	1	4.5 to 24	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-D	1	4.5 to 24	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-E	1	4.5 to 24	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-F	1	4.5 to 24	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71201A-G	1	6.5 to 24	5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-A	3	5 to 16	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-B	3	5 to 16	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-C	3	5 to 16	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-D	3	5 to 16	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-E	3	5 to 16	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71203A-F	3	5 to 16	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD71210A-A	10	4.5 to 17	1	-	-	✓	Int	OCP, OTP, SCP	SiP-10 (27x20)	400kHz f_{SW}

Buck | ($24V < V_{IN}$ Max $\leq 36V$)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_o (μA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD72401A-B	1	4.5 to 36	1.2	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-C	1	4.5 to 36	1.5	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-E	1	4.5 to 36	2.5	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-F	1	4.5 to 36	3.3	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-G	1	4.5 to 36	5	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72401A-H	1	6.5 to 36	12	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-A	2	4.5 to 36	1	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-B	2	4.5 to 36	1.2	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-D	2	4.5 to 36	1.8	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-E	2	4.5 to 36	2.5	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-F	2	4.5 to 36	3.3	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEZD72402A-G	2	6.5 to 36	5	-	-	-	Int	OCP, OTP, OVP/UVF, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{SW}
mEzs91202A	2.5	7 to 36	5	-	-	-	Int	OCP, OTP	SiP-4 (13x45)	USB charger, efficiency up to 95%
mEZDPD3603A-0001	3	4.5 to 36	3.3	-	-	✓	Int	OTP, SCP	SiP-12 (23x16)	Prog. DC/DC power supply
mEZDPD3603AS	3	4.5 to 36	0.6 to 12	-	✓	✓	Int	OTP, SCP	DIP (16x23)	Prog. DC/DC power supply with digital interface
mEZDPD4506A-0001	6	4 to 45	3.3	-	-	✓	Int	OCP, OTP, OVP/UVF, SCP	DIP (18.8x18.8x8.54)	Prog. DC/DC power supply
mEZDPD1620A-0001	20	4 to 16	1.8	-	-	✓	Int	OCP, OTP, OVP/UVF, SCP	DIP (16x23x14.14)	Prog. DC/DC power supply
mEZDPD4506AS-0001	6	4 to 45	3.3	-	-	✓	Int	OCP, OTP, OVP/UVF, SCP	LGA (10x10x4.4)	Prog. DC/DC power supply
mEZDPD1620AS-0001	20	4 to 16	1.8	-	-	✓	Int	OCP, OTP, OVP/UVF, SCP	QFN-59 (10x12x4)	Prog. DC/DC power supply

Buck | (V_{IN} Max > 36V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD74800A-A	0.3	4.5 to 75	3.3	-	-	Int	OCP, OTP, SCP with Hiccup	SiP-3 (10x20)	Power supply
mEZD74800A-B	0.3	4.5 to 75	5	-	-	Int	OCP, OTP, SCP with Hiccup	SiP-3 (10x20)	Power supply

PoE

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEzs84801A	1	37 to 57	12	-	✓	Int	OCP, OTP, OVP	SiP-20 (45x39)	12W, IEEE 802.3af-compliant, PoE powered device

Step-Up Boost & Buck-Boost Modules with Integrated Inductor

Synchronous (V_{IN} Max ≤ 6V)

Part Number	Converter Type	I_{OUT} (A)	V_{IN} (V)	I_o (mA)	Power Good	Digital/I ² C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
MPM4710	Buck-Boost	1	1.8 to 5.5	0.0	-	-	Int	✓	ECLGA (2.5x2.5x1.2)	High efficiency, 1MHz f_{SW} , internal compensation
MPM4730	Buck-Boost	1	3.0 to 22	4	✓	✓	Int	✓	ECLGA (3x3x1.86)	High efficiency
S MPM4720	Buck-Boost	2	1.8 to 5.5	0.0	-	-	Int	✓	ECLGA (2.5x2.5x1.2)	High efficiency

Buck Regulators

5V Synchronous Buck

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (A)	I _{SW}	I _Q (Typ) (μA)	f _{SW} (kHz)	R _{DS(on)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	FCCM	AAM Mode	COT Control	100% Duty Cycle	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPM3805A-AEC1	2.6	6	0.6	1.2	485	3500	120/70	-	Int	-	✓	-	✓	✓	-	✓	QFN-12 (2.5x3x0.9)	Module with integrated inductor
N	MPM3805B-AEC1	2.5	6	0.6	2.1	485	3500	100/60	1.2	Int	-	✓	-	✓	✓	-	✓	QFN-12 (2.5x3x0.9)	Module with integrated inductor
	MPM3808-AEC1	2.5	5.5	3	5	21	2400	65/35	1.2, 1.8	Ext	-	-	✓	✓	✓	✓	✓	QFN-15 (3x4x1.6)	Module with integrated inductor
	MPM3808C-AEC1	2.5	5.5	3	5	460	2400	65/35	1.2, 1.8	Ext	-	✓	-	✓	✓	✓	✓	QFN-15 (3x4x1.6)	Module with integrated inductor
	MPM3807-AEC1	2.5	5.5	2	3.5	21	2400	70/40	1.2, 1.8	Ext	-	-	✓	✓	✓	✓	✓	QFN-15 (3x4x1.6)	Module with integrated inductor
	MPM3807C-AEC1	2.5	5.5	2	3.5	460	2400	70/40	1.2, 1.8	Ext	-	✓	-	✓	✓	✓	✓	QFN-15 (3x4x1.6)	Module with integrated inductor
	MPM3806-AEC1	2.5	5.5	1	2.5	21	2400	75/45	1.2, 1.8	Ext	-	-	✓	✓	✓	✓	✓	QFN-15 (3x4x1.6)	Module with integrated inductor
	MPM3806C-AEC1	2.5	5.5	1	2.5	460	2400	75/45	1.2, 1.8	Ext	-	✓	-	✓	✓	✓	✓	QFN-15 (3x4x1.6)	Module with integrated inductor
	MPQ2177-AEC1	2.5	5.5	1	2.5	460	2400	90/50	1.2, 1.8	Ext	-	✓	-	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
	MPQ2177A-AEC1	2.5	5.5	1	2.5	21	2400	90/50	-	Ext	-	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
	MPM3810A-AEC1	2.6	6	1.2	2.1	485	3500	110/60	-	Int	-	✓	-	✓	✓	-	✓	QFN-12 (2.5x3x0.9)	Module with integrated inductor
	MPQ2178-AEC1	2.5	5.5	2	3.5	460	2400	80/40	1.2, 1.8	Ext	-	✓	-	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
	MPQ2178A-AEC1	2.5	5.5	2	3.5	21	2400	80/40	-	Ext	-	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
	MPQ2123-AEC1	2.7	6	2	6.3	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
	MPQ2179-AEC1	2.5	5.5	3	5	460	2400	65/35	-	Ext	-	✓	-	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
	MPQ2179A-AEC1	2.5	5.5	3	5	21	2400	65/35	-	Ext	-	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2)	MPQ2177 scalable series, ultra-compact
N	MPQ2177F-AEC1	2.5	6.5	1	2.5	21	2500	55/31	1.2, 1.8	Ext	✓	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, power good

	Part Number	V _{IN} (Min) (V)		V _{IN} (Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _Q (Typ) (μA)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	FCCM	AAM Mode	COT Control	100% Duty Cycle	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
N	MPQ2178F-AEC1	2.5	6.5	2	3.5	21	2500	55/31	1.2, 1.8	Ext	✓	-	✓	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, power good
N	MPQ2179F-AEC1	2.5	6.5	3	5	21	2500	55/31	1.2, 1.8	Ext	✓	-	✓	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, power good
N	MPQ2177H-AEC1	2.5	6.5	1	2.5	21	2500	55/31	1.2, 1.8	Ext	✓	✓	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, power good
N	MPQ2178H-AEC1	2.5	6.5	2	3.5	21	2500	55/31	1.2, 1.8	Ext	✓	✓	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, power good
N	MPQ2179H-AEC1	2.5	6.5	3	5	21	2500	55/31	1.2, 1.8	Ext	✓	✓	-	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, power good
S	MPQ2277-AEC1	2.5	6.5	1/1	2.5	930	2500	50/26	-	Ext	✓	✓	-	✓	✓	✓	✓	✓	QFN-16 (2.5x3.5)	6V, power good
S	MPQ2277A-AEC1	2.5	6.5	1/1	2.5	42	2500	50/26	-	Ext	✓	-	✓	✓	✓	✓	✓	✓	QFN-16 (2.5x3.5)	6V, power good
S	MPQ2279-AEC1	2.5	6.5	3/3	5	930	2500	50/26	-	Ext	✓	✓	-	✓	✓	✓	✓	✓	QFN-16 (2.5x3.5)	6V, power good
S	MPQ2279A-AEC1	2.5	6.5	3/3	5	42	2500	50/26	-	Ext	✓	-	✓	✓	✓	✓	✓	✓	QFN-16 (2.5x3.5)	6V, power good
N	MPQ2183-xxxx-AEC1	2.5	6.5	3	5	21	2400	50/26	-	Ext	✓	✓	✓	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, 1A to 3A, FSS
N	MPQ2183A-xxxx-AEC1	2.5	6.5	3	5	21	2500	50/26	0.8, 1.1, 1.2, 1.35, 1.7, 1.8, 1.9	Ext	✓	✓	✓	✓	✓	✓	✓	✓	QFN-8 (1.5x2.5)	6V, 1A to 3A, 2.5MHz fixed output, FSS
	MPQ2124-AEC1	2.7	6	3	6.3	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
	MPQ2167-AEC1	2.7	6	4	6.7	42	300 to 2200	35/25	-	Ext	-	✓	✓	-	✓	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
	MPQ2167B-AEC1	2.7	6	4	6.7	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	✓	QFN-11 (2x3)	MPQ2167 scalable series
	MPQ2180-AEC1	2.7	6	6	12.7	285	850 to 2200	38/21	0.8, 1	Int	-	✓	✓	-	-	-	-	-	QFN-14 (2.5x3)	-
	MPQ8847A-AEC1	2.7	6	6	12.7	285	850 to 2200	22/40	-	Int	-	✓	✓	-	-	-	-	-	QFN-14 (2.5x3)	-
	MPQ2167A-AEC1	2.7	6	6	9	42	300 to 2200	35/25	-	Ext	✓	✓	✓	-	✓	✓	✓	✓	QFN-14 (3x3)	MPQ2167 scalable series
N	MPQ2176-4000-AEC1	2.4	6	4	7	15	2200	12/8	-	Int	-	-	✓	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
N	MPQ2176-4001-AEC1	2.4	6	4	7	15	2200	12/8	-	Int	-	✓	-	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
N	MPQ2176-5000-AEC1	2.4	6	5	9	15	2200	12/8	-	Int	-	-	✓	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
N	MPQ2176-5001-AEC1	2.4	6	5	9	15	2200	12/8	-	Int	-	✓	-	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _a (Typ) (μA)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	FCCM	AAM Mode	COT Control	100% Duty Cycle	Fixed Frequency	Wettable Flank	QFN Option	Package	Notes
N	MPQ2176-6000-AEC1	2.4	6	6	10.5	15	2200	12/8	-	Int	-	-	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-	
N	MPQ2176-6001-AEC1	2.4	6	6	10.5	15	2200	12/8	-	Int	-	✓	-	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-	
N	MPQ2176A-600x-AEC1	2.4	5.5	6	10.5	15	2200	18/9	-	Int	-	✓	✓	✓	✓	✓	-	TLGA-13 (2x2.5)	-	
S	MPQ2176B-400x-AEC1	2.4	5.5	4	7	15	2200	15/9	-	Int	-	✓	✓	✓	✓	✓	-	TLGA-9 (2x3)	P2P with the MPQ2244	
S	MPQ2176B-600x-AEC1	2.4	5.5	6	10.5	15	2200	15/9	-	Int	-	✓	✓	✓	✓	✓	-	TLGA-9 (2x3)	P2P with the MPQ2246	
	MPQ2169A-AEC1	2.7	6	2.8 (Dual)	4	65	350 to 3000	60/25	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual-output, 2.8A total with 2A single-channel max	
	MPQ2169B-AEC1	2.7	6	2.8 (Dual)	4	65	350 to 3000	60/25	-	Ext	✓	✓	-	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual-output, 2.8A total with 2A single-channel max, FCCM only	
	MPQ2166A-AEC1	2.7	6	4 (Dual)	4.5	65	350 to 3000	55/20	-	Ext	✓	✓	✓	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual-output, 4A total with 3A single-channel max	
	MPQ2166B-AEC1	2.7	6	4 (Dual)	4.5	65	350 to 3000	55/20	-	Ext	✓	✓	-	-	✓	✓	✓	QFN-18 (2.5x3.5), QFN-18 (2x3)	Dual-output, 4A total with 3A single-channel max, FCCM only	
N	MPQ2283-AEC1	2.7	6	6	7	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable V _{OUT}	
N	MPQ2284-AEC1	2.7	6	8	9.3	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable V _{OUT}	
N	MPQ2285-AEC1	2.7	6	10	12	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable V _{OUT}	
	MPQ2286-AEC1	2.7	6	12	15	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable V _{OUT}	
	MPQ2287-AEC1	2.7	6	14	17	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable V _{OUT}	
	MPQ2288-AEC1	2.7	6	16	19	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable V _{OUT}	
S	MPQ71017FS-xxxx-AEC1	2.7	6	15	45	2000	2000, 2200, 3000, 4000	3/2	-	✓	✓	✓	✓	-	-	-	-	TLGA-22 (3.5x5)	MPSafe™, ZDP™ control	
S	MPQ71018FS-xxxx-AEC1	2.7	6	20	45	2000	2000, 2200, 3000, 4000	3/2	-	✓	✓	✓	✓	-	-	-	-	TLGA-22 (3.5x5)	MPSafe™, ZDP™ control	

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _Q (Typ) (μA)	f _{SW} (kHz)	R _{DS(on)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	FCCM	AAM Mode	COT Control	100% Duty Cycle	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
S	MPQ71019FS-xxxx-AEC1	2.7	6	25	45	2000	2000, 2200, 3000, 4000	3/2	-	✓	✓	✓	✓	-	-	-	-	TLGA-22 (3.5x5)	MPSafe™, ZDP™ control
S	MPQ71020FS-xxxx-AEC1	2.7	6	30	45	2000	2000, 2200, 3000, 4000	3/2	-	✓	✓	✓	✓	-	-	-	-	TLGA-25 (3x4.5)	MPSafe™, ZDP™ control
S	MPQ2295-xxxx-AEC1	2.7	6	30	45	2000	2000, 2200, 3000, 4000	3/2	-	✓	✓	✓	✓	-	-	-	-	TLGA-22 (3.5x5)	ZDP™ control
S	MPQ71411FS-xxxx-AEC1	2.7	6	30	45	2000	2000, 2200, 3000, 4000	3/2	-	✓	✓	✓	✓	-	-	-	-	TLGA-22 (3.5x5)	MPSafe™, ZDP™ control
S	MPQ2294-xxxx-AEC1	2.7	6	30	45	2000	2000, 2200, 3000, 4000	3/2	-	✓	✓	✓	✓	-	-	-	-	TLGA-22 (3.5x5)	ZDP™ control
N	MPQ2211-AEC1	4	6	12	-	650	2200	13.3/3.8	-	✓	-	✓	✓	✓	-	✓	-	LGA-19 (3x3.5)	Configurable current limit
S	MPQ2247-AEC1	2.5	6	4	-	20	2200 to 4000	35/12	-	✓	✓	✓	✓	-	-	✓	-	SOT583	FSS, synchronization
S	MPQ2248-AEC1	2.5	6	8	-	20	2200 to 4000	12/8	-	✓	✓	✓	✓	-	-	✓	-	SOT583	FSS, synchronization

18V to 24V Synchronous Buck

Part Number	V_{IN} (Min) (V)		V_{IN} (Abs Max) (V)		I_{OUT} (A)		I_{SW} Limit (Typ) (A)		I_o (Typ) (μ A)		V_{FB} (V)		f_{SW} (kHz)		$R_{DS(ON)}$ (m Ω)		Fixed-Output Versions (V)		Soft Start	Ext Sync	FCCM	AAM Mode	COT Control	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
MPQ4409-AEC1	4	24	0.9	1	600	0.807	450 to 2200	90/50	-								Int	✓	✓	-	-	✓	✓	QFN-13 (2.5x3)	-		
MPQ3524-0500-AEC1	3.3	22	0.5	1	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	-	✓	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-0501-AEC1	3.3	22	0.5	1	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	✓	-	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-1000-AEC1	3.3	22	1	1.5	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	-	✓	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-1001-AEC1	3.3	22	1	1.5	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	✓	-	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-1500-AEC1	3.3	22	1.5	1.8	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	-	✓	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-1501-AEC1	3.3	22	1.5	1.8	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	✓	-	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-2000-AEC1	3.3	22	2	2.7	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	-	✓	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-2001-AEC1	3.3	22	2	2.7	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	✓	-	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-3000-AEC1	3.3	22	3	4.4	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	-	✓	-	-	✓	QFN-12 (2x3)	-		
MPQ3524-3001-AEC1	3.3	22	3	4.4	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5								Int	-	✓	-	-	-	✓	QFN-12 (2x3)	-		
MPQ8861-AEC1	2.85	18	12	14	420	0.6	500 to 1250	15/4.5	-								Ext	-	-	-	✓	✓	✓	QFN-14 (3x4)	-	Can be used for 5V/3.3V input or regulated 12V _{IN} , integrated telemetry for voltage and current readout	

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _O (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	FCCM	AAM Mode	COT Control	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
N	MPQ4110-0XYZ-AEC1	3	22	0.5	1	20	0.8	450 to 2200	300/200	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	-	TSOT23-8	-
N	MPQ4110-1XYZ-AEC1	3	22	1	1.7	20	0.8	450 to 2200	300/200	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	-	TSOT23-8	-
N	MPQ4111-0XYZ-AEC1	3	22	0.5	1.35	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	-
N	MPQ4111-1XYZ-AEC1	3	22	1	2	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	-
N	MPQ4111-2XYZ-AEC1	3	22	2	3.4	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	-
N	MPQ4111-3XYZ-AEC1	3	22	3	5.8	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	-
N	MPQ4111-4XYZ-AEC1	3	22	4	6.5	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	-

40V to 50V Synchronous Buck with Frequency Spread Spectrum

	Part Number	V _{IN} (Min) (V)			V _{IN} (Abs Max) (V)		I _{OUT} (A)		I _{SW} Limit (Typ) (A)		I _Q (Typ) (μA)		V _{FB} (V)		f _{SW} (kHz)		R _{DS(ON)} (mΩ)		Fixed-Output Versions (V)		Soft Start		Ext Sync		Frequency Spread Spectrum		FCCM		AAM Mode		Zero-Delay PWM™		Wettable Flank QFN Option		Package	Notes
	MPQ4320-AEC1	3.3	42	0.5	1.2	20	0.8	350 to 2500	70/50	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact																	
	MPQ4321-AEC1	3.3	42	1	2	20	0.8	350 to 2500	70/50	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact																	
	MPQ4322-AEC1	3.3	42	2	3.4	20	0.8	350 to 2500	70/50	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact																	
	MPQ4323-AEC1	3.3	42	3	5.8	20	0.8	350 to 2500	70/50	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact																	
	MPQ4324E-AEC1	3.3	42	3 (4 Peak)	6.5	20	0.8	350 to 2500	70/50	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (2x3)	MPQ4320 series, ultra-compact																	
	MPQ4323M-AEC1	3.3	42	3	5.8	20	0.8	350 to 2500	70/50	3.3, 5	Int	-	✓	✓	✓	-	✓	QFN-12 (3.5x3.5)	MPQ4320 series, ultra-compact, int. input capacitors																	
N	MPQ4331-0XYZ-AEC1	3	40	0.5	1	20	0.8	450 to 2200	300/200	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	-	TSOT23-8	-																	
N	MPQ4331-1XYZ-AEC1	3	40	1	1.7	20	0.8	450 to 2200	300/200	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	-	TSOT23-8	-																	
	MPQ4334-0XYZ-AEC1	3	40	0.5	1.35	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4324 series																	
	MPQ4334-1XYZ-AEC1	3	40	1	2	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4324 series																	
	MPQ4334-2XYZ-AEC1	3	40	2	3.4	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4324 series																	

Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _D (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Zero-Delay PWM™	Wettable Flank QFN Option	Package	Notes
MPQ4334-3XYZ-AEC1	3	40	3	5.8	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4324 series
MPQ4334-4XYZ-AEC1	3	40	4	6.5	20	0.8	200 to 2500	65/45	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4324 series
MPQ4324-0500-AEC1	3.3	40	0.5	1	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	-	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-0501-AEC1	3.3	40	0.5	1	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	✓	-	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-1000-AEC1	3.3	40	1	1.5	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	-	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-1001-AEC1	3.3	40	1	1.5	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	✓	-	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
 MPQ4324-1500-AEC1	3.3	40	1.5	1.8	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	-	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
 MPQ4324-1501-AEC1	3.3	40	1.5	1.8	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	✓	-	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series

Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _O (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Zero-Delay PWM™	Wettable Flank QFN Option	Package	Notes
MPQ4324-2000-AEC1	3.3	40	2	2.7	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	-	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-2001-AEC1	3.3	40	2	2.7	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	✓	-	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-3000-AEC1	3.3	40	3	4.4	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	-	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-3001-AEC1	3.3	40	3	4.4	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	✓	-	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-4000-AEC1	3.3	40	4 Peak	5	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	-	✓	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
MPQ4324-4001-AEC1	3.3	40	4 Peak	5	20	0.8	350 to 2500	70/50	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	-	✓	✓	-	-	✓	QFN-12 (2x3), QFN-12 (3x4), QFN-14 (2.5x3.5)	Pin-compatible with the MPQ4334 series
N MPQ8883-AEC1	3.5	45	3	5	600	0.8	250 to 2500	95/50	-	Int	-	✓	✓	✓	-	-	QFN-16 (3x3)	Many features configurable via I²C and memory
MPQ4340-AEC1	3.3	42	4	7.7	2.5	-	350 to 2500	60/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase, ultra-low I _O
MPQ4341-AEC1	3.3	42	5	7.7	3	-	350 to 2500	60/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase, ultra-low I _O
MPQ4345-AEC1	3.3	42	2	5.8	3	-	350 to 2500	60/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Single-phase, ultra-low I _O
MPQ4346-AEC1	3.3	42	3	5.8	3	-	350 to 2500	60/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Single-phase, ultra-low I _O
MPQ4347-AEC1	3.3	42	4	7.7	3	-	350 to 2500	60/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Single-phase, ultra-low I _O
MPQ4348-AEC1	3.3	42	5	7.7	3	-	350 to 2500	60/35	3.3, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Single-phase, ultra-low I _O

Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _Q (Typ) (µA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Zero-Delay PWM™	Wettable Flank QFN Option	Package	Notes
MPQ4340A-2XYZ-AEC1	3.3	42	2	4.4	3	0.6	350 to 2500	60/35	1, 1.1, 1.8, 2.5, 3, 3.3, 3.8, 4, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase capable
MPQ4340A-3XYZ-AEC1	3.3	42	3	4.4	3	0.6	350 to 2500	60/35	1, 1.1, 1.8, 2.5, 3, 3.3, 3.8, 4, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase capable
MPQ4340A-4XYZ-AEC1	3.3	42	4	5.9	3	0.6	350 to 2500	60/35	1, 1.1, 1.8, 2.5, 3, 3.3, 3.8, 4, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase capable
MPQ4340A-5XYZ-AEC1	3.3	42	5	5.9	3	0.6	350 to 2500	60/35	1, 1.1, 1.8, 2.5, 3, 3.3, 3.8, 4, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase capable
MPQ4340A-6XYZ-AEC1	3.3	42	6	7.2	3	0.6	350 to 2500	60/35	1, 1.1, 1.8, 2.5, 3, 3.3, 3.8, 4, 5	Ext	✓	✓	✓	✓	✓	✓	QFN-17 (3x4)	Multi-phase capable
MPQ4312-AEC1	3.3	50	2	5.5	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
MPQ4313-AEC1	3.3	50	3	5.5	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
MPQ4314-AEC1	3.3	50	4	8	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
MPQ4315-AEC1	3.3	50	5	8	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
MPQ4316-AEC1	3.3	50	6	13	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
MPQ4317-AEC1	3.3	50	7	13	18	0.815	350 to 530	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	MPQ4312 series
MPQ4436A-AEC1	3.3	50	6	13	18	0.815	420	48/20	3.3, 5	Ext	✓	✓	✓	✓	-	✓	QFN-20 (4x4)	Multi-phase, low I _Q
MPQ4480-AEC1	4.2	40	6	17/22	1000	1	235 to 2200	20/15	-	Int	✓	✓	-	-	-	✓	QFN-25 (4x5)	Adjustable line drop compensation

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _Q (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Zero-Delay PWM™	Wettable Flank QFN Option	Package	Notes
N	MPQ8856-AEC1 (Hybrid)	4	40	5	11	400	0.825	450/1000	20	-	Int	-	✓	-	-	-	✓	QFN-16 (3x3)	Low-side int., supports 100% duty cycle and PMBus interface
S	MPQ8857-AEC1	4	40	5	11	400	0.825	450/1000	20/18	-	Int	-	✓	-	-	-	✓	QFN-16 (3x3)	Supports 100% duty cycle and PMBus interface
	MPM3551-AEC1	3.3	42	3	5.8	20	0.8	2200	70/50	-	Int	-	✓	-	✓	-	✓	QFN-20 (4x6)	Module with integrated inductor
	MPM3551C-AEC1	3.3	42	3	5.8	1200	0.8	2200	70/50	-	Int	-	✓	✓	-	-	✓	QFN-20 (4x6)	Module with integrated inductor
	MPQ4325-AEC1	3.3	36	5	8.5	20	0.8	200 to 2500	45/25	-	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	Ultra-compact, low I _Q
	MPQ4326-AEC1	3.3	36	6	10	20	0.8	200 to 2500	45/25	3.3	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	Ultra-compact, low I _Q
N	MPQ4327-AEC1	3.3	36	7	11	20	0.8	200 to 2500	45/25	-	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	Ultra-compact, low I _Q
	MPQ4328-AEC1	3.3	36	4	6.4	20	0.8	200 to 2500	45/25	-	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	Ultra-compact, low I _Q
	MPQ4326B-3000-AEC1	3.3	36	3	4.4	20	0.8	200 to 2500	45/25	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	-
	MPQ4326B-4000-AEC1	3.3	36	4	5	20	0.8	200 to 2500	45/25	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	-
	MPQ4326B-5000-AEC1	3.3	36	5	6	20	0.8	200 to 2500	45/25	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	-
	MPQ4326B-6000-AEC1	3.3	36	6	7.5	20	0.8	200 to 2500	45/25	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	-

Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _D (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Zero-Delay PWM™	Wettable Flank QFN Option	Package	Notes
MPQ4326B-7000-AEC1	3.3	36	7	8	20	0.8	200 to 2500	45/25	1, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	✓	QFN-14 (4x4)	-
MPQ4371-6000-AEC1	3.3	42	6	7.2	3.5	0.6	200 to 2500	21.5/10	1, 1.2, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
MPQ4371-8000-AEC1	3.3	42	8	9.6	3.5	0.6	200 to 2500	21.5/10	1, 1.2, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
MPQ4371-0000-AEC1	3.3	42	10	12	3.5	0.6	200 to 2500	21.5/10	1, 1.2, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
MPQ4371-1000-AEC1	3.3	42	11	13.2	3.5	0.6	200 to 2500	21.5/10	1, 1.2, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
MPQ4372-1001-AEC1	3.3	42	11	13.2	3.5	0.6	200 to 2500	21.5/10	1, 1.2, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	Multi-phase
S MPQ4373-1XYZ-AEC1	3.3	42	11	19	3.5	0.6	200 to 2500	22/11	1, 1.2, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	-	-	LGA-16 (3.5x4.5)	-
S MPQ4374-2XYZ-AEC1	3.5	40	12	20.7	42	0.6	425 to 2200	11.5/5	1, 1.2, 1.8, 2.5, 3, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-28 (5x6)	-

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _O (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Zero-Delay PWM™	Wettable Flank QFN Option	Package	Notes
S	MPQ4374-4XYZ-AEC1	3.5	40	14	24.7	42	0.6	425 to 2200	11.5/5	1, 1.2, 1.8, 2.5, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-28 (5x6)	-
S	MPQ4374-6XYZ-AEC1	3.5	40	16	27.6	42	0.6	425 to 2200	11.5/5	1, 1.2, 1.8, 2.5, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-28 (5x6)	-
S	MPQ4385-5XYZ-AEC1	3.3	40	25	37	10	0.8	200 to 2500	45780	0.8, 1, 1.2, 1.8, 2.5, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-32 (5x6)	Multi-phase
S	MPQ4385-2XYZ-AEC1	3.3	40	22	33	10	0.8	200 to 2500	45780	0.8, 1, 1.2, 1.8, 2.5, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-32 (5x6)	Multi-phase
S	MPQ4385-0XYZ-AEC1	3.3	40	20	30	10	0.8	200 to 2500	45780	0.8, 1, 1.2, 1.8, 2.5, 3.3, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-32 (5x6)	Multi-phase
S	MPQ4384-2XYZ-AEC1	3.3	40	12	18	10	0.8	200 to 2500	5/3	0.8, 1, 1.2, 1.8, 2.5, 3.3, 3.8, 4.5, 5	Int	✓	✓	✓	✓	✓	✓	QFN-32 (5x6)	Multi-phase
S	MPQ4384-4XYZ-AEC1	3.3	40	14	22.5	10	0.8	200 to 2500	5/3	0.8, 1, 1.2, 1.8, 2.5, 3.3, 3.8, 4.5, 5	Int	✓	✓	✓	✓	✓	✓	QFN-32 (5x6)	Multi-phase

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _D (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Zero-Delay PWM™	Wettable Flank QFN Option	Package	Notes
S	MPQ4384-6XYZ-AEC1	3.3	40	16	22.5	10	0.8	200 to 2500	5/3	0.8, 1, 1.2, 1.8, 2.5, 3.3, 3.8, 4.5, 5	Int	✓	✓	✓	✓	✓	✓	QFN-32 (5x6)	Multi-phase
S	MPQ4384-8XYZ-AEC1	3.3	40	18	27	10	0.8	200 to 2500	5/3	0.8, 1, 1.2, 1.8, 2.5, 3.3, 3.8, 4.5, 5	Int	✓	✓	✓	✓	✓	✓	QFN-32 (5x6)	Multi-phase

40V to 50V Synchronous Buck without Frequency Spread Spectrum

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _{SW} Limit (Typ) (A)	I _D (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPM3509B-AEC1	4	40	0.6	5	700	0.807	400	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module, int. inductor, BST/VCC capacitors
	MPQ9846-AEC1	3.3	40	0.6	1.2	14	0.8	350 to 2500	125/115	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	Compact, low I _D
	MPQ4418-AEC1	4	40	0.6	5.6	600	0.792	410	90/55	-	Int	✓	-	✓	-	✓	-	TSOT23-8	MPQ4420 series
	MPQ4418A-AEC1	4	40	0.6	1.7	600	0.792	410	90/55	-	Int	✓	-	✓	-	✓	-	TSOT23-8	MPQ4420 series
	MPM3509-AEC1	4	40	0.9	3	600	0.807	2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module, int. inductor, BST/VCC capacitors
	MPQ4419-AEC1	4	40	1	5.6	600	0.792	410	90/55	-	Int	✓	-	✓	-	✓	-	TSOT23-8	MPQ4420 series
	MPQ4431-AEC1	3.3	40	1	2.5	10	0.8	350 to 2500	90/80	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I _D , low-dropout mode
	MPQ9840-AEC1	3.3	40	1	5.6	14	0.8	350 to 2500	90/40	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I _D , low-dropout mode

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_O (Typ) (μ A)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (m Ω)	Fixed-Output Versions (V)	Soft Start	Ext Sync	Frequency Spread Spectrum	FCCM	AAM Mode	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
MPM3515-AEC1	4	40	1.5	4	600	0.807	2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module, int. inductor, BST/VCC capacitors
MPQ4415M-AEC1	4	40	1.5	4	600	0.8	450 to 2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-13 (2.5x3)	Integrated input capacitor
MPQ4415A-AEC1	4	40	1.5	4	600	0.8	450 to 2200	90/50	-	Int	✓	-	✓	-	✓	✓	QFN-13 (2.5x3)	-
MPQ4420H-AEC1	4	40	2	4.2	500	0.792	410	90/55	-	Int	✓	-	-	✓	✓	-	TSOT23-8	MPQ4420 series
MPQ4420A-AEC1	4	40	2	5.6	600	0.792	410	90/55	-	Int	✓	-	✓	-	✓	-	TSOT23-8	MPQ4420 series
MPQ4432-AEC1	3.3	40	2.2	5.2	10	0.8	350 to 2500	90/40	3.8, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I_O , low-dropout mode
MPQ9841-AEC1	3.3	40	2.2	2.5	14	0.8	350 to 2500	90/80	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I_O , low-dropout mode
MPQ4433-AEC1	3.3	40	3	5.8	10	0.8	350 to 2500	90/40	5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I_O , low-dropout mode
MPQ9842-AEC1	3.3	40	3	5	14	0.8	350 to 2500	90/40	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I_O , low-dropout mode
MPQ4423H-AEC1	4	40	3	4.4	500	0.792	410	85/55	-	Int	✓	-	-	✓	✓	✓	QFN-8 (3x3)	-
MPQ4423A-AEC1	4	40	3	5.7	600	0.792	410	85/55	-	Int	✓	-	✓	-	✓	-	QFN-8 (3x3)	-
MPQ4430-AEC1	3.3	40	3.5	5.8	10	0.8	350 to 2500	90/40	3.8, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ4430 series, low I_O , low-dropout mode
MPQ9843-AEC1	3.3	40	3.5	5.6	14	0.8	350 to 2500	125/55	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-16 (3x4)	MPQ9840 series, low I_O , low-dropout mode
MPQ4473-AEC1	4.5	40	3.5	6.6	500	0.815	200 to 1000	40/20	-	Ext	✓	-	-	-	-	-	QFN-20 (3x4)	Constant-on-time (COT) control
MPQ4470-AEC1	4.5	40	5	8	500	0.815	100 to 1000	40/20	-	Ext	✓	-	-	-	-	-	QFN-20 (3x4)	Constant-on-time (COT) control
MPQ4470A-AEC1	4.5	40	5	8	500	0.815	100 to 1000	40/20	-	Ext	✓	-	-	-	-	-	QFN-20 (3x4)	Constant-on-time (COT) control
MPQ4436-AEC1	3.3	50	6	13	18	0.815	420	48/20	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-20 (4x4)	Multi-phase, low I_O
MPQ4436B-AEC1	3.3	50	6	13	18	0.815	2200	48/20	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-20 (4x4)	Multi-phase, low I_O

60V to 80V Synchronous Buck

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (μ A)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (m Ω)	Fixed-Output Versions	Soft Start	Ext Sync	FCCM	AAM Mode	Hysteretic Control	Fixed Frequency	Package	Notes
	MPQ4569-AEC1	4.5	80	0.3	0.72	20	1	-	1200/450	-	Ext	-	-	✓	✓	-	QFN-10 (3x3), SOIC-8E	Prog. soft start
	MPQ4569A-AEC1	4.5	80	0.3	0.72	20	1	-	1200/500	-	Ext	-	-	✓	✓	-	QFN-10 (3x3)	Prog. soft start, default enable on
	MPQ2420-AEC1	4.5	80	0.3	0.72	20	1	-	1200/450	-	Ext	-	-	✓	✓	-	TSSOP-16EP	Int. separate windowed watchdog die
	MPQ2420A-AEC1	4.5	80	0.3	0.72	20	1	-	1200/450	-	Ext	-	-	✓	✓	-	TSSOP-16EP	Int. separate windowed watchdog die, default enable on
	MPQ4576-AEC1	4.5	65	0.6	1.95	40	0.8	200 to 2200	250/45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q , compact
	MPQ4571-AEC1	4.5	65	1	1.95	40	0.8	200 to 2200	250/45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q , compact
	MPQ4572-AEC1	4.5	65	2	3.5	40	0.8	200 to 2200	250/45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q , compact
	MPQ4573-AEC1	4.5	65	2.5	3.5	40	0.8	200 to 2200	250/45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	MPQ4572 series, low I_Q , compact
	MPQ4570-AEC1	4.5	60	3	5.7	520	1	100 to 1000	90/70	-	Ext	✓	-	✓	-	✓	TSSOP-20EP	Prog. soft-start time, external sync
	MPM3901-AEC1	4.5	65	1	1.95	40	0.8	200 to 2200	250/45	-	Int	-	✓	✓	-	✓	QFN-12 (2.5x3)	Low- I_Q , compact module with an integrated inductor
N	MPQ8880A-AEC1	4	60	4.5	5.5	8	0.15/0.6/0.999/1.5	150 to 2200	60/43	-	Int	✓	✓	✓	✓	✓	QFN-20 (4x5)	Prog. soft-start time, PG, multi-phase
S	MPQ8887-AEC1	4.5	70	9	12	180	0.5/1.6/2	200 to 600	14/28	-	Int	✓	✓	✓	✓	✓	QFN-24 (4x5)	Supports I ² C, 100% duty cycle

>100V Synchronous Buck

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (μ A)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (Ω)	Soft Start	Ext Sync	FCCM	AAM Mode	Hysteretic Control	Package	Notes
	MPQ4590-AEC1	7.5	700	0.4	0.66	200	2.55	-	13.5	Int	-	✓	-	✓	SOIC-8	Primary-side CV control, supports buck, buck-boost, boost, and flyback topologies

Buck Controllers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_O (Typ) (μA)	I_{SD} (Typ) (μA)	V_{FB} (V)	f_{SW} (kHz)	Fixed-Output Versions	Soft Start	Ext Sync	FCCM	AAM Mode	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPQ2908A-AEC1	4	60	750	0.5	0.8	100 to 1000	-	Ext	✓	✓	✓	✓	✓	TSSOP-20EP, QFN-20 (3x4)	High max duty cycle (99.5%)
	MPQ2918-AEC1	4	40	750	0.5	0.8	100 to 1000	-	Ext	✓	✓	✓	✓	✓	TSSOP-20EP, QFN-20 (3x4)	High max duty cycle (99.5%)
S	MPQ2923-AEC1	3.6	42	20	2.2	1.2	200 to 2200	1.2, 1.8, 2.5, 3.3, 3.8, 5, 12, 15, 18	Ext	✓	✓	✓	✓	✓	QFN-24 (4x4)	Frequency spread spectrum, multi-phase
S	MPQ9934-AEC1	5.5	85	400	8 (Max)	0.17/0.5/0.667/1.2/1.6	100 to 1000	-	Ext	-	✓	✓	Prog.	✓	QFN-23 (4x4)	Multi-phase, GaN driver capability
S	MPQ2933-AEC1	3.6	42	20	2.2	1.2	200 to 2200	1.2, 1.8, 2.5, 3.3, 3.8, 5, 12, 15, 18	Ext	✓	✓	✓	✓	✓	QFN-38 (5x8)	Frequency spread spectrum, multi-phase

Non-Synchronous Buck

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_a (Typ) (μ A)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (m Ω)	Fixed-Output Versions	Soft Start	Ext Sync	FCCM	Fixed Frequency	Package	Notes
MPQ2459-AEC1	4.5	60	0.5	1.25	730	0.812	480	1000	-	Int	-	✓	✓	TSOT23-6	Superior light-load efficiency
MPQ2451-AEC1	3.3	40	0.6	1	130	0.794	2000	500	3.3, 5	Int	-	-	✓	TSOT23-6L, QFN-6L	Internal comp. and soft start
MPQ2454-AEC1	3.3	40	0.6	1.8	60	0.8	350 to 2300	200	-	Ext	✓	-	✓	QFN-10 (3x3), MSOP-10EP	Superior light-load efficiency
MPQ4558-AEC1	3.8	60	1	1.9	140	0.8	200 to 2000	250	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4559-AEC1	3.8	60	1.5	2.3	140	0.8	200 to 2000	250	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4561-AEC1	3.8	60	1.5	2.5	140	0.795	250 to 2000	300	-	Ext	-	-	✓	QFN-10 (3x3)	Superior light-load efficiency
MPQ4560-AEC1	3.8	60	2	3.2	140	0.797	250 to 2000	250	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4462-AEC1	3.8	40	3.5	5.5	120	0.792	250 to 4000	150	-	Int	-	-	✓	QFN-10 (3x3), SOIC-8E	Superior light-load efficiency
MPQ4467-AEC1	3.3	40	2.5	5.8	10	0.8	350 to 2500	90	-	Ext	✓	-	✓	QFN-16 (3x4)	Low-dropout, selectable in-phase or 180° out-of-phase
MPQ4468-AEC1	3.3	40	3.5	5.8	10	0.8	350 to 2500	90	-	Ext	✓	-	✓	QFN-16 (3x4)	Low-dropout, selectable in-phase or 180° out-of-phase
MPQ4469-AEC1	3.3	40	5	7.7	10	0.8	350 to 2500	110	-	Ext	✓	-	✓	QFN-20 (4x5)	Low-dropout, selectable in-phase or 180° out-of-phase
MPQ2362-AEC1	4.8	25	Dual 2	3.4	2000	1.222	380	180	-	Int	✓	✓	✓	TSSOP-20	Dual output

Buck-Boost Regulators

Buck-Boost Converters

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (Max) (V)	I _{OUT} (Typ) (A)	I _Q (Typ) (μA)	f _{SW} (kHz)	R _{DS(ON)} (mΩ)	Interface	Frequency Spread Spectrum	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPQ8873-xxxx-AEC1	2.2	36	0.5 to 30	3	180	200 to 1000	2x 10/25	I ² C	✓	✓	✓	QFN-34 (4x5)	20W prog. 4-switch converter with advanced protections
	MPQ8875A-xxxx-AEC1	2.2	36	0.5 to 30	5	180	200 to 1000	2x 10/25	I ² C	✓	✓	✓	QFN-34 (4x5)	30W prog. 4-switch converter with advanced protections
S	MPQ8874-xxxx-AEC1	4	42	1 to 30	4	20	200 to 2200	Buck 20/40, Boost 40/20	I ² C	✓	✓	✓	QFN-22 (4x5)	-
S	MPQ8872-xxxx-AEC1	4	42	1 to 30	2	20	200 to 2200	Buck 20/40, Boost 40/20	I ² C	✓	✓	✓	QFN-22 (4x5)	-
S	MPQ8835A-xxxx-AEC1	3	40	1 to 24	6	130	280, 420, 600, 1000	Buck 12/16, Boost 7/7	I ² C	✓	✓	✓	QFN-19 (4x5)	-
S	MPQ8837-xxxx-AEC1	2.8	40	1 to 26	8	350	280, 420, 600, 1200, 2100	12, 24, 12, 12	I ² C	✓	✓	✓	QFN-18 (3x4)	-
S	MPQ8836-AEC1	3.6	40	1 to 36	5	135	280, 420, 600	20/14	I ² C	✓	✓	✓	QFN-20 (3x5)	100W, two int. FETs, 98% peak efficiency, high-side current sense
	MPQ4262-AEC1 (Hybrid)	3.6	40	1 to 36	5	130	280, 420, 600	20/14	I ² C	✓	✓	✓	QFN-20 (3x5)	USB, 100W, two int. FETs, 98% peak efficiency
	MPQ4263-AEC1	3.6	40	1 to 36	5	135	280, 420, 600	20/14	I ² C	✓	✓	✓	QFN-20 (3x5)	USB, 100W, two int. FETs, 98% peak efficiency, high-side current sense
	MPQ4232-AEC1	4.3	40	1 to 22	5	130	280, 420, 600, 1000	10/14/6/6	I ² C	✓	✓	✓	QFN-19 (4x5)	USB, 22V/5A, 4-switch converter with advanced protection
S	MPQ4232A-AEC1	3	40	1 to 24	6	130	280, 420, 600, 1000	Buck 12/16, Boost 7/7	I ² C	✓	✓	✓	QFN-19 (4x5)	USB, 36V/5A, 4-switch converter with advanced protection, P2P with the MPQ4232-AEC1

Boost Regulators

Synchronous Boost

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (Max) (V)	I _{SW} Limit (Typ) (A)	I _Q (Typ) (μA)	I _{SD} (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	Current Limit (A)	R _{DS(ON)} (mΩ)	Output (V)	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	MPQ3410-AEC1	1.8	6	6	1.3	360	0.15	1.19	550	1.3	530/300	Adj	✓	-	TSOT23-5	Output to input disconnect
	MPQ3413-AEC1	1.8	4	5	3.6	8	0.1	-	2.2	3.6	80/70	5	✓	-	TSOT23-5	-
	MPQ3414B-AEC1	2.8	4	5	3.6	8	0.1	-	2.2	3.6	80/70	5	✓	-	TSOT23-5	Mode
N	MPQ3414C-AEC1	2.8	4	5	3.6	8	0.1	-	2.2	3.6	80/70	5	✓	-	TSOT23-5	Sync/mode
	MPQ3428A-AEC1	3	20	22	25	110	1	1.225	600	25	18	Adj	✓	-	QFN-22 (3x4)	Input disconnect function, external high-side gate drive
	MPQ3431A-AEC1	0.8	13	16	21	450	25	1	450	25	6/9.5	Adj	✓	✓	QFN-13 (3x4)	Prog. input current limit, supports 40W peak power load from 3.3V, selectable PSM and FCCM, adaptive COT
	MPQ3431C-AEC1	0.8	13	16	Adj	450	25	1	450	10	6/9.5	Adj	✓	✓	QFN-13 (3x4)	Prog. internal switch peak current limit, supports 40W peak power load
	MPQ3432-AEC1	0.8	13	16	10	450	25	1	600	10	6/9.5	Adj	✓	✓	QFN-13 (3x4)	Prog. internal switch peak current limit, supports 40W peak power load
	MPQ3438-AEC1	0.8	10	16	2	150	2	1	2600	2	6/9.5	Adj	✓	✓	QFN-8 (1.5x2)	-

Boost Controllers

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _Q (Typ) (μA)	I _{SD} (Typ) (μA)	V _{FB} (V)	f _{SW} (kHz)	Gate Drive (A)	Soft Start	Sync	OVP	Wettable Flank QFN Option	Package	Notes
	MPQ3910A-AEC1	5	35	288	1	1.237	30 to 400	1	Ext	✓	✓	-	MSOP-10	Peak current mode, light-load operation, supports >10A, OVP, SCP, OTP
N	MPQ3445-AEC1	3	45	40	15	Adj	250 to 2500	2	Adj	✓	✓	✓	QFN-21 (5x5)	Multi-phase capable, frequency spread spectrum, digitally prog. I ² C/SPI
N	MPQ3446-AEC1	6	60	60	15	Adj	250 to 2500	2	Adj	✓	✓	✓	QFN-21 (5x5)	Multi-phase capable, frequency spread spectrum, digitally prog. I ² C/SPI
S	MPQ3447-AEC1	6	85	60	15	Adj	250 to 2500	2	Adj	✓	✓	✓	QFN-21 (5x5)	Multi-phase capable, frequency spread spectrum, digitally prog. I ² C/SPI

Non-Synchronous Boost

Part Number	V_{IN} (Min) (V)	V_{SW} (Max) (V)	V_{OUT} (Max) (V)	I_{SW} Limit (Typ) (A)	I_O (Typ) (μA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Soft Start	OCP	Wettable Flank QFN Option	Package	Notes
MPQ3426-AEC1	3.2	45	35	8.5	650	1.225	300 to 2000	90	Ext	✓	✓	QFN-14 (3x4)	Prog. UVLO and EN hysteresis
MPQ3425-AEC1	3.1	22	55	5	650	1.225	300 to 2000	90	Ext	✓	✓	QFN-14 (3x4)	Prog. UVLO and EN hysteresis
MPQ3452-AEC1	3.1	22	22	5	650	1.225	300 to 2000	90	Ext	✓	✓	QFN-14 (3x4)	Prog. UVLO and EN hysteresis

PMICs

40V PMICs

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	Max f_{SW} (MHz)	ADC	Frequency Spread Spectrum	MpSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
N	MPQ70430FS-AEC1	4.5	65	3	2 Bucks, 1 Boost	Buck: 3/2 Boost: 0.25	2.5	-	✓	✓	SPI	✓	TQFN-34 (6x6)	ASIL-D independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning
	MPQ70331FS-AEC1	4.5	42	3	2 Bucks, 1 Boost	Buck: 3/2 Boost: 0.25	2.5	-	✓	✓	SPI	✓	TQFN-34 (6x6)	ASIL-D independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning
N	MPQ70332FS-AEC1	4.5	42	3	2 Bucks, 1 Boost	Buck: 3/2 Boost: 0.25	2.5	-	✓	✓	SPI	✓	TQFN-34 (6x6)	ASIL-B independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning
N	MPQ70333FS-AEC1	4.5	42	2	1 Buck, 1 Boost	Buck: 3 Boost: 0.25	2.5	-	✓	✓	SPI	✓	TQFN-34 (6x6)	ASIL-D independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning
P	MPQ70350FS-AEC1	3.5	36	4	3 Bucks, 1 LDO	Buck: 1.5/0.6/2 LDO: 0.4	2.2	-	✓	✓	I²C	✓	QFN-15 (2.5x3.5)	ASIL-B, for high-resolution camera modules powered off-battery
P	MPQ70355FS-AEC1	4	40	5	4 Bucks, 1 Boost	Buck: 3/4/3/2 Boost: 0.5	2.2/ 4.4/ 8.8	-	✓	✓	I²C	✓	QFN-26 (4x4)	ASIL-B, for radar modules powered off-battery
P	MPQ70372FS-AEC1	2.5	40	8	1 Boost, 2 Bucks, 6 LDOs	Boost Controller Buck: 3/4 LDO: 0.7/0.4/0.26/ 0.16/0.16/0.1	2.5	-	✓	✓	SPI	✓	TQFN-34 (6x6)	ASIL-D, for MCUs
N	MPQ7902-AEC1	4.5	42	3	2 Bucks, 1 Boost	Buck: 3/2 Boost: 0.25	2.5	-	✓	✓	SPI	✓	QFN-34 (6x6)	Independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning

	Part Number	V _{IN} (Min) (V)		V _{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	Max f _{SW} (MHz)	ADC	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
N	MPQ70336FS-AEC1	3.3	40	5	1 Buck, 4 Voltage Monitors	Buck: 4	2.5	✓	✓	✓	I ² C	✓	TQFN-25 (3x6)	ASIL-D, 4x voltage monitors with 2 single-ended and 2 differential inputs	
N	MPQ70340FS-AEC1	3.5	40	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	✓	✓	✓	I ² C	✓	QFN-15 (2.5x3.5)	ASIL-B, for camera modules powered off-battery	
N	MPQ70342FS-AEC1	3.5	40	3	3 Bucks	Buck: 0.6/0.6/1	2.2	✓	✓	✓	I ² C	✓	QFN-15 (2.5x3.5)	ASIL-B, for camera or radar modules powered off-battery	
S	MPQ73350FS-AEC1	3.5	40	2	2 Bucks	Buck: 7/12 (w/ Heatsink)	2.2	✓	✓	✓	SPI/I ² C	✓	QFN-28 (5x6)	ASIL-B, digital, dual outputs, ADC for diagnostics	
S	MPQ73351FS-AEC1	3.5	40	2	2 Bucks	Buck: 7/12 (w/ Heatsink)	2.2	✓	✓	✓	SPI/I ² C	✓	QFN-28 (5x6)	ASIL-D, digital, dual outputs, ADC for diagnostics	
S	MPQ4390-AEC1	3.5	40	2	2 Bucks	Buck: 7/12 (w/ Heatsink)	2.2	✓	✓	✓	SPI/I ² C	✓	QFN-28 (5x6)	QM version, digital, dual outputs, ADC for diagnostics	
	MPQ2026A-AEC1	3	40	3	2 LDOs, 1 Pre-Boost	LDO: 0.3/0.3 Pre-Boost: 2.5	2.2	✓	✓	-	I ² C	✓	QFN-16 (4x4)	Powers phantom active antenna supplies and ADAS modules, pre-boost enables cold/warm crank operation, digitally prog. V _{OUT}	
	MPQ2024A-AEC1	3	40	2	2 LDOs	LDO: 0.3/0.3	2.2	✓	✓	-	I ² C	✓	QFN-16 (4x4)	Digitally programmable V _{OUT}	
	MPQ2022A-AEC1	3	40	2	1 LDO, 1 Pre-Boost	LDO: 0.3 Pre-Boost: 2.5	2.2	✓	✓	-	I ² C	✓	QFN-16 (4x4)	Powers phantom active antenna supplies and ADAS modules, pre-boost enables cold/warm crank operation, digitally prog. V _{OUT}	

18V PMICs

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	Max f _{SW} (MHz)	Adj. Power Sequencing	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
P	MPQ70250FS-AEC1	3.5	20	4	3 Bucks, 1 LDO	Bucks: 1.5/0.6/2 LDO: 0.4	2.2	✓	✓	✓	I²C	✓	QFN-15 (2.5x3.5)	ASIL-B, for high-resolution camera modules powered over coaxial cable
	MPQ70240FS-AEC1	3.5	18	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	✓	✓	✓	I²C	✓	QFN-15 (2.5x3.5)	ASIL-B, for camera modules powered over coaxial cable
N	MPQ70241FS-AEC1	3.5	18	4	3 Bucks, 1 LDO	Buck: 1/0.6/1.5 LDO: 0.2	2.2	✓	✓	✓	I²C	✓	QFN-15 (2.5x3.5)	ASIL-B, for camera modules, uprated current, powered over coaxial cable
N	MPQ70244FS-AEC1	3.5	18	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	✓	✓	✓	I²C	✓	QFN-15 (2.5x3.5)	ASIL-B, for camera modules, powered over coaxial cable, enhanced digital interface logic
N	MPQ70245FS-AEC1	3.5	18	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1.5 LDO: 0.2	2.2	✓	✓	✓	I²C	✓	QFN-15 (2.5x3.5)	ASIL-B, for camera modules, uprated current, powered over coaxial cable, enhanced digital interface logic
N	MPQ7929-AEC1	3.5	18	4	3 Bucks, 1 LDO	Buck: 1/0.6/1.5 LDO: 0.2	2.2	✓	✓	✓	I²C	✓	QFN-15 (2.5x3.5)	For camera modules, uprated current, powered over coaxial cable

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	Max f _{SW} (MHz)	Adj. Power Sequencing	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
	MPQ7928-AEC1	3.5	18	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	✓	✓	-	I ² C	✓	QFN-15 (2.5x3.5)	For camera modules powered over coaxial cable
N	MPQ7928A-AEC1	3.5	18	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	✓	✓	-	I ² C	✓	QFN-15 (2.5x3.5)	For camera modules powered over coaxial cable, additional power sequencing options

5V PMICs

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	Max f _{SW} (MHz)	Multi-Phase Outputs	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
N	MPQ70160FS-AEC1	2.7	5.5	6	6 Bucks	Buck: 3/3/4/4/1/1	2	✓	✓	✓	I ² C	✓	QFN-32 (5x5)	ASIL-D, Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
N	MPQ70161FS-AEC1	2.7	5.5	6	6 Bucks	Buck: 1/1/2/2/1/1	2	✓	✓	✓	I ² C	✓	QFN-32 (5x5)	ASIL-D, Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
N	MPQ70165FS-AEC1	2.7	5.5	6	6 Bucks	Buck: 3/3/4/4/1/1	2	✓	✓	✓	I ² C	✓	QFN-32 (5x5)	ASIL-B, Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
N	MPQ70166FS-AEC1	2.7	5.5	6	6 Bucks	Buck: 1/1/2/2/1/1	2	✓	✓	✓	I ² C	✓	QFN-32 (5x5)	ASIL-B, Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
S	MPQ70170FS-AEC1	2.8	5.5	9	5 Bucks, 4 LDOs	Buck: 4/4/4/4/2 LDO: 0.35/0.35/0.35/0.35	4.4	✓	✓	✓	I ² C	✓	QFN-56 (8x8)	ASIL-D, 13x GPIOs, user-configurable state machine system OVP, DrMOS mode, Q&A watchdog timer
S	MPQ70171FS-AEC1	2.8	5.5	9	5 Bucks, 4 LDOs	Buck: 4/4/4/4/2 LDO: 0.35/0.35/0.35/0.35	4.4	✓	✓	✓	I ² C	✓	QFN-56 (8x8)	ASIL-B, 13x GPIOs, user-configurable state machine system OVP, DrMOS mode, Q&A watchdog timer
S	MPQ7907-AEC1	2.8	5.5	9	5 Bucks, 4 LDOs	Buck: 4/4/4/4/2 LDO: 0.35/0.35/0.35/0.35	4.4	✓	✓	✓	I ² C	✓	QFN-56 (8x8)	QM, 13x GPIOs, user-configurable state machine system OVP, DrMOS mode, Q&A watchdog timer
N	MPQ70700FS-AEC1	2.8	5.5	5	5 LDOs	LDO: 0.4/0.4/0.4/0.4/0.4	-	-	-	✓	I ² C	✓	TQFN-24 (5x5)	ASIL-D, Q&A watchdog timer, 2x ext. voltage monitoring, 4x GPIOs, prog. sequencing, adj. V _{OUT} , UVP/OVP and OCP, thermal shutdown
N	MPQ70701FS-AEC1	2.8	5.5	5	5 LDOs	LDO: 0.4/0.4/0.4/0.4/0.4	-	-	-	✓	I ² C	✓	TQFN-24 (5x5)	ASIL-B, Q&A watchdog timer, 2x ext. voltage monitoring, 4x GPIOs, prog. sequencing, adj. V _{OUT} , UVP/OVP and OCP, thermal shutdown

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	Max f _{SW} (MHz)	Multi-Phase Outputs	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
N	MPQ7970-AEC1	2.8	5.5	5	5 LDOs	LDO: 0.4/0.4/0.4/0.4/0.4	-	-	-	✓	I ² C	✓	TQFN-24 (5x5)	Q&A watchdog timer, 2x ext. voltage monitoring, 4x GPIOs, prog. sequencing, adj. V _{OUT} , UVP/OVP and OCP, thermal shutdown
N	MPQ70150FS-AEC1	3	5	4	3 Bucks, 1 Boost	Buck: 3.5/3.5/3.5 Boost: 0.5	17.6	-	✓	✓	I ² C	✓	QFN-28 (5x5)	ASIL-B, ultra-low noise optimized for radars, advanced freq. spread spectrum, window or Q&A watchdog timer, mount ID, ext. voltage monitoring
S	MPQ70150FS-M-AEC1	3	5	4	3 Bucks, 1 Boost	Buck: 3.5/3.5/3.5 Boost: 0.5	17.6	-	✓	✓	I ² C	✓	QFN-28 (5x5)	ASIL-B, ultra-low noise optimized for radars, advanced freq. spread spectrum, window or Q&A watchdog timer, mount ID, ext. voltage monitoring
N	MPQ70152FS-AEC1	3	5	4	2 Bucks, 1 Boost	Buck: 3.5/3.5 Boost: 0.5	17.6	-	✓	✓	I ² C	✓	QFN-28 (5x5)	ASIL-B, ultra-low noise optimized for radars, advanced freq. spread spectrum, window or Q&A watchdog timer, mount ID, ext. voltage monitoring
N	MPQ70153FS-AEC1	3	5	4	3 Bucks	Buck: 3.5/3.5/3.5 Boost: 0.5	17.6	-	✓	✓	I ² C	✓	QFN-28 (5x5)	ASIL-B, ultra-low noise optimized for radars, advanced freq. spread spectrum, window or Q&A watchdog timer, mount ID, ext. voltage monitoring
	MPQ7920-AEC1	2.7	5.5	9	4 Bucks, 5 LDOs	Buck: 4.5/4/2.5/2 LDO: 0.3/0.3/0.3/0.3/0.01	2.75	-	-	-	I ² C	✓	QFN-16 (4x4)	MTP prog., selectable time slot sequencing, extensive adj. and protections for bucks, dedicated RTC for LDOs, COT
S	MPQ74201-AEC1	2.7	5.5	6	4 Bucks, 2 LDOs	Buck: 6/6/6/6 LDO: 0.4/0.4	3	✓	-	✓	I ² C	✓	QFN-29 (5x5)	ASIL-D, watchdog, MOTP memory with 4 user-selectable OTP pages via PRESET pin
	MPQ7930-AEC1	2.7	5.5	6	6 Bucks	Buck: 3/3/4/4/1/1	2	✓	✓	-	I ² C	✓	QFN-32 (5x5)	Prog. sequencing, integrated adj. compensation network, hiccup UVP/OVP and OCP, thermal shutdown
N	MPQ7931-AEC1	2.7	5.5	6	6 Bucks	Buck: 1/1/2/2/1/1	2	✓	✓	-	I ² C	✓	QFN-32 (5x5)	Prog. sequencing, integrated adj. compensation network, hiccup UVP/OVP and OCP, thermal shutdown
N	MPQ7932-AEC1	2.7	5.5	6	6 Bucks	Buck: 3/3/4/4/1/1	2	✓	✓	-	I ² C	✓	QFN-32 (5x5)	Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
N	MPQ7933-AEC1	2.7	5.5	6	6 Bucks	Buck: 1/1/2/2/1/1	2	✓	✓	-	I ² C	✓	QFN-32 (5x5)	Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
S	MPQ7935-AEC1	2.7	5.5	5	4 Bucks, 1 LDO	Buck: 1/1/1/1 LDO: 0.3	2.2	✓	✓	-	I ² C	✓	TLGA-29 (4.5x4.5)	MOTP
S	MPQ7936-AEC1	2.7	5.5	5	4 Bucks, 4 LDOs	Buck: 4.5/4.5/2.5/2 LDO: 0.55/0.55/0.3/0.3	2.2	✓	✓	-	I ² C	✓	TLGA-29 (4.5x4.5)	Flexible system settings via I ² C and MOTP

Automotive Compute SoC Core Power

Multi-Phase Digital Controllers

	Part Number	Control Method	System Interface	Memory Type	# of Rails	# of Phases	V_{CC} (Typ) (V)	I_o (Typ) (mA)	f_{SW} (Max) (kHz)	Wettable Flank QFN Option	Package	Notes
	MPQ2977-AEC1	Digital	Digital Interface/I ² C	MTP	2	6	5	15	1250	✓	TQFN-40 (6x6)	-
	MPQ2967-AEC1	Digital	Digital Interface/I ² C	MTP	2	4	5	20	2000	✓	TQFN-40 (6x6)	MPSafe™, ASIL-D
	MPQ2946-AEC1	Digital	Digital Interface/I ² C	MTP	3	8	5	20	2000	✓	TQFN-48 (7x7)	-
N	MPQ29125-AEC1	Digital	Digital Interface/I ² C	MTP	3	8	3.3	13	2000	-	TQFN-52 (6x6)	-
N	MPQ29164-AEC1	Digital	Digital Interface/I ² C	MTP	2	6	3.3	8	2000	✓	TQFN-48 (6x6)	-
N	MPQ72957-AEC1	Digital	Digital Interface/I ² C	MTP	4	8	5	20	2000	✓	TQFN-48 (7x7)	MPSafe™, ASIL-D
S	MPQ72963-AEC1	Digital	Digital Interface/I ² C	MTP	3	9	5	25	2000	✓	TQFN-48 (7x7)	MPSafe™, ASIL-D
S	MPQ29270-AEC1	Digital	Digital Interface/I ² C	MTP	3	11	5	35	2000	✓	TQFN-56 (8x8)	-
S	MPQ29260-AEC1	Analog	-	-	1	3	3.3	3.5	500	✓	TQFN-24 (4x4)	-

Intelli-Phase™ DrMOS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Load Current (A)	V_{CC} (Typ) (V)	I_o (Typ) (mA)	Integrated Current Sense	Integrated Temp Sense	Fault Indicator	Wettable Flank QFN Option	Package
	MPQ86940-AEC1	3	22	40	3.3	25	✓	✓	✓	✓	QFN-21 (4x5)
	MPQ86960-A-AEC1	3	22	50	5	25	✓	✓	✓	-	LGA-38 (5x6)
N	MPQ86750-AEC1	3	22	50	5	25	✓	✓	✓	-	LGA-38 (5x6)
	MPQ86760-AEC1	3	6	45	3.3	25	✓	✓	✓	✓	QFN-21 (4x5)
	MPQ86970-AEC1	3	22	50	5	25	✓	✓	✓	-	LGA-41 (5x6)
S	MPQ86761-AEC1	3	6	60	3.3	25	✓	✓	✓	✓	QFN-21 (3.5x6)
S	MPQ86725-AEC1	3	6	25	3.3	25	✓	✓	✓	✓	QFN-17 (3.5x6)
S	MPQ86720-AEC1	24	70	20	3.3	20	✓	✓	✓	✓	QFN-22 (5x6)
S	MPQ86770-AEC1	3	6	45	3.3	25	✓	✓	✓	-	LGA-30 (4x5)
S	MPQ86771-AEC1	3	6	45	3.3	25	✓	✓	✓	-	LGA-38 (5x6)

Intelli-Phase™ PoLs

	Part Number	Control Method		System Interface	Memory Type		V _{IN} (Min) (V)	V _{IN} (Max) (V)	Load Current (A)	V _{OC} (Typ) (V)	I _D (Typ) (mA)	Integrated Current Sense	Integrated Temp Sense	f _{SW} (Max) (kHz)	Wettable Flank QFN Option	Package
S	MPQ29240-AEC1	Digital	Digital Interface/I²C	MTP	4	22	40	3.3	25	✓	✓	1000	✓	QFN-27 (5x6)		
S	MPQ29241-AEC1	Digital	Digital Interface/I²C	MTP	4	22	30	3.3	25	✓	✓	1000	✓	QFN-27 (5x6)		
N	MPQ29261-AEC1	Digital	-	-	4.5	22	18	3.3	20	✓	✓	800	✓	QFN-19 (3x4)		
N	MPQ81811-AEC1	Digital	-	-	2.5	22	8	3.3	4	✓	✓	900	-	QFN-13 (2x3)		
S	MPQ82B55-AEC1	Digital	-	-	2.5	22	12	3.3	4	✓	✓	900	-	QFN-23 (3x4)		

Linear Regulators

5V LDO

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (mA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V _{FB} (V)	I _Q (Typ) (μA)	Enable Pin	Adjustable Option (V)	Fixed-Output Versions (V)	Power Good	Package
	MPQ20056-AEC1	2.5	5.5	250	0.0003	63	0.8	150	✓	0.8 to 5	1.8, 2.5, 3.3	-	QFN-8 (2x2), TSOT23-5
S	MPQ20033-AEC1	1.6	5.5	300	0.002	70	0.5	26	✓	0.5 to 5	0.75, 0.8, 0.85, 1, 1.2, 1.8, 2.5, 2.8, 3.3	✓	QFN-8 (3x3), QFN-8 (2x2), QFN-6 (2x2), TSOT23-5, SOT563
	MPQ8904-AEC1	2.5	6.5	500	0.005	26	0.5	140	✓	0.5 to 5	-	✓	QFN-8 (2x3)
S	MPQ20032-AEC1	1.6	5.5	500	0.002	70	0.5	26	✓	0.5 to 5	0.75, 0.8, 0.85, 1, 1.2, 1.8, 2.5, 2.8, 3.3	✓	QFN-8 (3x3), QFN-8 (2x2), QFN-6 (2x2), TSOT23-5, SOT563
S	MPQ20031-AEC1	1.6	5.5	1000	0.002	70	0.5	26	✓	0.5 to 5	0.75, 0.8, 0.85, 1, 1.2, 1.8, 2.5, 2.8, 3.3	✓	QFN-8 (3x3), QFN-8 (2x2), QFN-6 (2x2)
	MPQ20051-AEC1	2.5	5.5	1000	0.0003	63	0.8	130	✓	0.8 to 5	-	-	QFN-8 (3x3)
P	MPQ20054-AEC1	1	6	4000	0.0875	57	0.8	25	✓	0.8 to 4.5	-	✓	QFN-12 (2.2x2.5), QFN-20 (3.5x3.5)

40V LDO

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V_{FB} (V)	I_a (Typ) (μA)	Enable Pin	Adjustable Option (V)	Fixed-Output Versions (V)	Power Good	Package
	MPQ2016-AEC1	4	40	30	0.003	65	1.23	12	✓	1.2 to 24	-	-	QFN-8 (2x3)
	MPQ2013A-AEC1	2.5	40	150	0.005	41	1.215	3.2	✓	1.215 to 15	QFN-8: 3.3, 2.5, 5, 1.8 QFN-6: 3.3, 5	-	QFN-6 (2x2), QFN-8 (3x3)
	MPQ2013D-AEC1	2.5	40	100	0.005	41	1.215	3.2	✓	1.215 to 15	2.5, 3.3, 5	-	TSOT23-4
	MPQ2019-AEC1	3	40	300	0.04	45	1.25	10	✓	1.2 to 15	3.3, 5	✓	SOIC-8EP
	MPQ2019A-AEC1	3	40	300	0.04	45	1.25	10	✓	1.2 to 36	-	✓	SOIC-8EP
	MPQ2022A-AEC1	3	40	300	0.3	53	1	35	✓	1 to 13.6	-	✓	QFN-16 (4x4)
N	MPQ2023-AEC1	4.5	40	300	0.3	80	1	20	✓	1 to 13.6	-	✓	QFN-16 (4x4), QFN-14 (3x3)
	MPQ2024A-AEC1	3	40	300	0.3	53	1	35	✓	1 to 13.6	-	✓	QFN-16 (4x4)
	MPQ2026A-AEC1	3	40	300	0.3	53	1	35	✓	1 to 13.6	-	✓	QFN-16 (4x4)
N	MPQ71000FS-AEC1	4.5	40	300	0.3	80	1	20	✓	1 to 13.6	-	✓	QFN-16 (4x4), QFN-14 (3x3)
N	MPQ20082-AEC1	3	40	300	0.04	45	1.25	10	✓	1.25 to 36	3.3, 5	✓	MSOP-8EP
	MPQ2029-AEC1	3	40	450	0.04	45	1.25	10	✓	1.2 to 15	3.3, 5	✓	SOIC-8EP
S	MPQ20083-AEC1	3	40	150	0.105	77	0.65	1.4	-	-	3.3, 4, 5, 8	-	QFN-10 (3x3)
S	MPQ20084-AEC1	3	40	150	0.105	77	0.65	1.4	✓	1.5 to 18	3.3, 4, 5, 8	✓	QFN-10 (3x3), SOT-223
S	MPQ20085-AEC1	3	40	150	0.105	77	0.65	1.4	✓	-	3.3, 5	✓	SOT-223
S	MPQ20086-AEC1	3	40	500	0.003	60	0.65	2.5	✓	1.2 to 18	3.3, 5	✓	SOIC-8EP
S	MPQ20087-AEC1	3	40	500	0.005	60	-	2.5	-	-	3.3, 5	✓	SOIC-8EP
P	MPQ20088-AEC1	3	40	500	0.005	60	-	2.5	-	-	3.3, 5	-	SOT89, TO252-3

DDR Memory Power

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	Accuracy for VTT, VTT _{REF} (mV)	V Driver (V)	Package	Notes
MPQ20073-AEC1	1.3	6	2	30	3.3	MSOP-8E	DDR2/3 termination regulator

LED Drivers (Lighting)

Backlighting

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	f_{SW} (kHz)	Dimming Modes	LED Protection	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
MPQ3386-AEC1	4.5	30	Boost	6	30	625 or 1250	PWM, Analog	Open, Short	3%	-	-	QFN-24 (4x4)	-
MPQ3387L-AEC1	3	30	Boost	6	45	500 or 1250	PWM, Mixed	Open, Short	3%	-	-	QFN-24 (4x4)	-
MPQ3362-AEC1	3	42	Boost	1	-	200 to 2200	PWM, Analog	Open, Short	-	-	-	TSOT23-8	4A current limit, low $R_{DS(ON)}$, soft start
MPQ3359-AEC1	3.5	42	Boost/SEPIC	4	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	PWM	✓	QFN-20 (3x4)	Separated PWM and analog dimming pin
MPQ3359A-AEC1	3.5	42	Boost/SEPIC	1/2/3/4	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	PWM	✓	QFN-20 (3x4)	Separated PWM and analog dimming pin
MPQ3364-AEC1	3.5	42	Boost/SEPIC	4	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	Three selectable IC addresses
N MPQ3365-AEC1	3.5	42	Boost/SEPIC	4	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	Three selectable IC addresses, I ² C dimming
N MPQ3365A-AEC1	3.5	42	Boost/SEPIC	5	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	Three selectable IC addresses, I ² C dimming
MPQ3369-AEC1	3.5	42	Boost/SEPIC	6	100	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4), TSSOP-28EP	Frequency spread spectrum, thermal derating, fault pin, rich protection features
MPQ3367-AEC1	3.5	42	Boost/SEPIC	6	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4), TSSOP-28EP	Frequency spread spectrum, thermal derating, fault pin, rich protection features
MPQ3367A-AEC1	3.5	42	Boost/SEPIC	6	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	MPQ3367-AEC1 features, three prog. addresses
N MPQ3359C-AEC1	3.5	42	Boost/SEPIC	4	160	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	PWM	✓	QFN-20 (3x4)	External FET, separated PWM and analog dimming
N MPQ3366C-AEC1	3.8	42	Boost/SEPIC	6	200	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	External FET, four selectable IC addresses, I ² C dimming

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	f_{SW} (kHz)	Dimming Modes	LED Protection	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
S	MPQ3366A-AEC1	3.8	42	Boost/SEPIC	6	200	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	Supports 16-bit PWM dimming resolution based on the MPQ3366C (15 bits)
N	MPQ3368-AEC1	3.8	42	Boost/SEPIC	8	200	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	External FET, four selectable IC addresses, I ² C dimming
S	MPQ3368A-AEC1	3.8	42	Boost/SEPIC	8	200	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I ² C	✓	QFN-24 (4x4)	Supports 16-bit PWM dimming resolutions based on the MPQ33668 (15 bits)

RBG LED Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} per Channel (mA)	Dimming Modes	LED Protection	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
	MPQ3323B-AEC1	4.5	16	Linear	4	320	PWM, Analog	Open, Short	2%	I ² C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital config.
	MPQ3324-AEC1	4	16	Linear	8	100	PWM, Analog	Open, Short	2%	I ² C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital config.
	MPQ3326-AEC1	4	16	Linear	16	50	PWM, Analog	Open, Short	2%	I ² C	✓	QFN-24 (4x4)	I ² C input logic voltage: (V_{IL_MAX} : 0.4V, V_{IH_MIN} : 1.3V)
	MPQ3326-AEC1-C03Q	4	16	Linear	16	50	PWM, Analog	Open, Short	2%	I ² C	✓	QFN-24 (4x4)	I ² C input logic voltage: (V_{IL_MAX} : 0.4V, V_{IH_MIN} : 1.3V)
	MPQ3326A-AEC1	4.5	16	Linear	16	80	PWM, Analog	Open, Short	2%	I ² C	✓	QFN-24 (4x4)	I ² C input logic voltage: (V_{IL_MAX} : 0.4V, V_{IH_MIN} : 1.3V)
	MPQ3326B-AEC1	4.5	16	Linear	16	80	PWM, Analog	Open, Short	2%	I ² C	✓	QFN-24 (4x4)	I ² C input logic voltage: (V_{IL_MAX} : 0.8V, V_{IH_MIN} : 1.5V)
N	MPQ3322-AEC1	3.5	22	Linear	24	100	PWM, Analog	Open, Short	3%	CAN	✓	QFN-24 (4x4)	LED current slew rate, phase shift, adaptive voltage feedback, failsafe mode
N	MPQ3621-AEC1	3	11	Linear	48	50	PWM, Analog	Open, Short	3%	SPI	✓	QFN-24 (4x4)	LED current slew rate, phase shift, adaptive voltage feedback
N	MPQ3321-AEC1	3	22	Linear	48	80	PWM, Analog	Open, Short	3%	SPI	✓	QFN-24 (4x4)	LED current slew rate, phase shift, adaptive voltage feedback
S	MPQ3321A-AEC1	3	22	Linear	48	80	PWM, Analog	Open, Short	3%	SPI	✓	QFN-24 (4x4)	Supports 10µA LED channel current option based on the MPQ3321
N	MPQ3327-AEC1	3.5	20	Switch	-	-	-	-	-	SPI, GPIO	✓	QFN-14 (3x3)	8A, 4 switching line scan driver for local dimming, combined with the MPQ3321 for scanning scheme

Exterior Lighting

Part Number	V_{in} (Min) (V)	V_{in} (Abs Max) (V)	Topology	Max Current (A)	Current Limit (Typ) (A)	$R_{DS(on)}$ (m Ω)	Dimming Modes	f_{sw} (kHz)	LED Protection	Frequency Spread	Fault Pin	Wettable Flank QFN Option	Package	Notes
MPQ2489-AEC1	6	55	Low-Side Buck	1.4	Adj	500	PWM, Analog	200 to 600	Open, Short	-	-	-	QFN-6 (3x3)	-
MPQ2483A-AEC1	4.5	55	Buck, Buck-Boost	2.5	3	280	PWM, Analog	250 to 1350	Open, Short	-	-	-	QFN-10 (3x3), SOIC-14	Output SCP
MPQ24833-B-AEC1	4.5	55	Buck, Buck-Boost, Boost	3	6	150	PWM, Analog	420	Open, Short	-	-	-	SOIC-8E	Output SCP
MPM6010-AEC1	4	40	Buck	1.5	4	85/50	PWM	2200	Open, Short	-	✓	✓	QFN-17 (3x5x1.6)	Module with int. inductor and BST/VCC capacitors, sync operation, output OCP
MPQ4425A-AEC1	4	40	Buck	1.5	4	85/50	PWM	2200	Open, Short	-	✓	✓	QFN-13 (2.5x3)	Synchronous operation, output OCP
MPQ4425B-AEC1	4	40	Buck	1.5	4	85/50	PWM	410	Open, Short	-	✓	✓	QFN-13 (2.5x3)	Synchronous operation, output OCP
MPQ4425C-AEC1	4	40	Buck	1.5	4	85/50	PWM	2200	Open, Short	-	✓	✓	QFN-13 (2.5x3)	Alternative fault indicator behavior at EN off and soft-start time
MPQ4425M-AEC1	4	40	Buck	1.5	4	85/50	PWM	2200	Open, Short	-	-	-	QFN-13 (2.5x3)	-
MPQ7200-AEC1	6	42	Buck, Buck-Boost	3 (Buck), 1.2 (Buck-Boost)	6	44/40	PWM	2300 Buck, 1500 Buck-Boost	Open, Short	✓	✓	✓	QFN-19 (3x4)	Int. current-sense resistor, band-band control loop, OCP with latch, OVP, thermal shutdown
MPQ7200A-AEC1	6	42	Buck, Buck-Boost	3 (Buck), 1.2 (Buck-Boost)	6	44/40	PWM	410	Open, Short	✓	✓	✓	QFN-19 (3x4)	Int. current-sense resistor, band-band control loop, OCP with latch, OVP, thermal shutdown
MPQ2484-AEC1	4.5	45	Buck, Boost, Buck-Boost	Controller	Adj	-	PWM, Analog	100 to 2200	Open, Short	✓	-	-	TSSOP-28EP	Cycle-by-cycle current limit, output OVP, fault flag output
N MPQ7260-AEC1	3.6	36	Buck-Boost	5	-	20/14	-	280, 420, 580	-	-	-	-	QFN-20 (3mmx5mm)	2x integrated LS-FETs, CC/CV operation
MPQ7210-AEC1	4.5	65	Dual Buck	2	3.5	235/235	PWM, Analog	220, 420, 1000	Short	✓	✓	✓	QFN-26 (5x5)	Dual outputs, UVP, OCP, failsafe (FS) pin, SPI interface

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Topology	Max Current (A)	Current Limit (Typ) (A)	R _{DS(ON)} (mΩ)	Dimming Modes	f _{SW} (kHz)	LED Protection	Frequency Spread Spectrum	Fault Pin	Wettable Flank QFN Option	Package	Notes
P	MPQ7212-AEC1	4.5	70	Dual Buck	2	3.5	200/150	PWM, Analog	220, 420, 800, 1100, 2200	Open, Short	✓	✓	-	TQFP-48 (7x7)	Dual outputs, UVP, OCP, up to 7x MPIO pins, SPI or UART interface, top-side cooling, 48V compatible
P	MPQ7213-AEC1	4.5	70	Triple Buck	3	3.5	200/150	PWM, Analog	220, 420, 800, 1100, 2200	Open, Short	✓	✓	-	TQFP-48 (7x7)	Triple outputs, UVP, OCP, up to 6x MPIO pins, SPI or UART interface, top-side cooling, 48V compatible
S	MPQ76350FS-AEC1	3.5	40	Dual Buck	10	13	21/9	-	410, 2200	-	✓	✓	✓	QFN-28 (5x6)	MPSafe™, ASIL-B, digital, constant-voltage dual outputs, ADC for diagnostics, UART or SPI digital interface
S	MPQ76352FS-AEC1	3.5	40	Buck	10	13	21/9	-	410, 2200	-	✓	✓	✓	QFN-28 (5x6)	MPSafe™, ASIL-B, digital, constant-voltage single output, ADC for diagnostics, UART or SPI digital interface

Animated/Dynamic Lighting (Multi-Channel and Matrix Managers)

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Topology	# of Channels	I _{OUT} per Channel (mA)	f _{SW} (kHz)	Dimming Modes	LED Protection	Frequency Spread Spectrum	Channel-to-Channel Current Accuracy (%)	Interface	Wettable Flank QFN Option	Package	Notes
	MPQ7220-AEC1	3.5	40	Boost + Linear	6	100	200, 400, 1000, 2200	PWM, Analog	Open, Short	✓	2.5%	-	-	QFN-24 (4x4), TSSOP-28EP	External sync SW function disconnects V _{OUT} from V _{IN} , cycle-by-cycle current limit
	MPQ7221-AEC1	4	18	Linear	16	80	-	PWM, Analog	Open, Short	-	2%	I ² C	✓	QFN-24 (4x4)	6-bit analog dimming per channel, 12-bit PWM dimming per channel, refresh signal output
N	MPQ7222-AEC1	3.5	22	Linear	24	100	-	PWM, Analog	Open, Short	✓	3%	Differential Interface	✓	QFN-40 (6x6)	Current-sink LED driver, adaptive feedback control (AFC™), 12-bit PWM or 6-bit analog dimming, safety suite
S	MPQ7223-AEC1	3	20	Linear	48	80	-	PWM, Analog	Open, Short	-	-	Serial Interface	✓	QFN-68 (8x8)	Current-sink LED driver, adaptive feedback control (AFC™), 16-bit PWM or 7-bit analog dimming, safety suite
	MPQ7225-AEC1	2.5	20	Linear	16	200	-	PWM, Analog	Open, Short	✓	5%	Differential Interface	✓	QFN-32 (5x6)	Current-sink LED driver, adaptive feedback control (AFC™), 12-bit PWM or 6-bit analog dimming, safety suite
P	MPQ7226-AEC1	3.5	28	Linear	16	100	-	PWM, Analog	Open, Short	✓	3%	UART	-	TQFP-48 (7x7)	Current-sink LED driver, adaptive digital feedback control, limp home mode, ADC, enhanced UART protocol
P	MPQ7227-AEC1	3.5	28	Linear	24	100	-	PWM, Analog	Open, Short	✓	3%	UART	-	TQFP-48 (7x7)	Current-sink LED driver, adaptive digital feedback control, limp home mode, ADC, enhanced UART protocol

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Topology	# of Channels	I _{OUT} per Channel (mA)	f _{SW} (kHz)	Dimming Modes	LED Protection	Frequency Spread Spectrum	Channel-to-Channel Current Accuracy (%)	Interface	Wettable Flank QFN Option	Package	Notes
N	MPQ7250-AEC1	4.5	40	Linear	3	200	-	PWM	Open, Short	-	5%	-	✓	QFN-20 (4x4)	Current-sink LED driver, 3x independent PWM pins, shunt resistors for thermal sharing, single LED short, LED binning resistor input
S	MPQ76300FS-AEC1	6	30	Linear	24	100	-	PWM, Analog	Open, Short	✓	3%	UART	-	TQFP-48 (7x7)	MPSafe™, ASIL-B current-sink LED driver, adaptive digital feedback control, limp home mode, ADC, enhanced UART protocol
P	MPQ76301FS-AEC1	6	30	Linear	16	100	-	PWM, Analog	Open, Short	✓	3%	UART	-	TQFP-48 (7x7)	MPSafe™, ASIL-B current-sink LED driver, adaptive digital feedback control, limp home mode, ADC, enhanced UART protocol
S	MPQ7241U-AEC1	4.5	60	Matrix Manager	12	1500	-	PWM, Analog	Open, Short	-	-	Differential Interface	✓	QFN-40 (6x6)	12 dimming switches, 10-bit or 8-bit PWM dimming, LED open/short protection, thermal shutdown
S	MPQ76400FS-AEC1	4.5	65	Matrix Manager	16	1600	-	PWM, Analog	Open, Short	-	-	UART	-	TQFP-48 (7x7)	MPSafe™, ASIL-B, 16 dimming switches, built-in charge pump, 20V switch to switch handling, 4x LED groupings, limp home mode
P	MPQ76401FS-AEC1	4.5	65	Matrix Manager	16	700	-	PWM, Analog	Open, Short	-	-	UART	-	TQFP-48 (7x7)	MPSafe™, ASIL-B, 16 dimming switches, built-in charge pump, 20V switch to switch handling, 4x LED groupings, limp home mode
P	MPQ76402FS-AEC1	4.5	65	Matrix Manager	12	1500	-	PWM, Analog	Open, Short	-	-	UART	-	TQFP-48 (7x7)	MPSafe™, ASIL-B, 12 dimming switches, built-in charge pump, 20V switch to switch handling, 4x LED groupings, limp home mode

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Topology	# of Channels	I _{OUT} per Channel (mA)	f _{SW} (kHz)	Dimming Modes	LED Protection	Frequency Spread Spectrum	Channel-to-Channel Current Accuracy (%)	Interface	Wettable Flank QFN Option	Package	Notes
P	MPQ76403FS-AEC1	4.5	65	Matrix Manager	12	700	-	PWM, Analog	Open, Short	-	-	UART	-	TQFP-48 (7x7)	MPSafe™, ASIL-B, 12 dimming switches, built-in charge pump, 20V switch to switch handling, 4x LED groupings, limp home mode

Infrared (IR) LED Drivers for Driver Monitoring Systems

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Topology	Max Current (A)	LED Current Accuracy (%)	R _{DS(ON)} (mΩ)	Dimming Modes	f _{SW} (kHz)	LED Protection	Frequency Spread Spectrum	Wettable Flank QFN Option	Package	Notes	
	MPQ7230-AEC1	6	50	Buck, Buck-Boost	3 (Buck), 2.4 (Buck-Boost)	5%	44/40	PWM	410	Open, Short	✓	✓	✓	QFN-19 (3x4)	Integrated current-sense resistor, fast transient response
	MPQ7231-AEC1	6	50	Buck, Buck-Boost	3 (Buck), 2.4 (Buck-Boost)	5%	44/40	PWM	1150, 2400	Open, Short	✓	✓	✓	QFN-19 (3x4)	Dimming on-time limit (1ms/3ms/5ms) for eye safety, low dimming frequency to 10Hz, int. current-sense resistor
N	MPQ7232-AEC1	4.5	40	Buck	6	5%	45/30	PWM	2250	Open, Short	✓	✓	✓	QFN-15 (3x4)	10Hz to 2kHz PWM dimming frequency, compatible with 30FPS/60FPS/120FPS dimming
	MPQ7235-AEC1	4	40	Buck	3	5%	85/50	PWM	2200	Open, Short	-	✓	✓	QFN-13 (2.5x3)	10Hz to 2kHz PWM dimming frequency, compatible with 30FPS/60FPS/120FPS dimming
S	MPQ76230FS-AEC1	4.5	40	Pre-Boost + Buck	10	5%	25/25	PWM	420, 2200	Open, Short	✓	✓	✓	QFN-21 (4x4)	MPSafe™, ASIL-C, ADC for diagnostics, 2-stage design enables device to be powered off, power over coaxial DMS application
S	MPQ76233FS-AEC1	4.5	40	Buck	10	5%	25/25	PWM	420, 2200	Open, Short	✓	✓	✓	QFN-21 (4x4)	MPSafe™, ASIL-B, ADC for diagnostics, designed for off-battery applications

Display PMICs

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Regulator Blocks	Output Voltage (V)	Current Limit (Typ) (A)	Interface	Package	Notes
N	MPQ5613A-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : 0V to 19.8V Configurable	V_{DDP} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 1ms V_{GH}/V_{GL} UVP time
N	MPQ5613B-AEC1	2.7	5.7	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 9V Configurable; V_{DDN} : -10.3V to -0.7V Configurable; V_{GH} : 5V to 32V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : -5V to +9.67V Configurable	V_{DDP} : 1.8A V_{DDN} : 1.8A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 1ms V_{GH}/V_{GL} UVP time
N	MPQ5613-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{DDN} : -16.6V to -0.7V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : -13.21V to +19.8V Configurable	V_{DDP} : 2.5A V_{DDN} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 1ms V_{GH}/V_{GL} UVP time
N	MPQ5613C-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{DDN} : -16.6V to -0.7V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable;	V_{DDP} : 2.5A V_{DDN} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 48ms V_{GH}/V_{GL} UVP time, no V_{COM}
N	MPQ5613D-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{DDN} : -16.6V to -0.7V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : -13.21V to +19.8V Configurable	V_{DDP} : 2.5A V_{DDN} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 48ms V_{GH}/V_{GL} UVP time

Monitoring & Supervision

Voltage Supervisors & Monitors (Reset ICs)

	Part Number	# of Channels	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Reset Threshold (V)	Threshold Accuracy (%)	I _Q (Typ) (µA)	Reset Delay	Package	Notes
	MPQ6400-33-AEC1	1	1.8	5.5	2.93	±1.0	1.6	2ms to 10s	QFN-6 (2x2)	Capacitor-set delay, reset output to MCU
	MPQ6400-01-AEC1	1	1.8	5.5	Adj	±1.0	1.6	2ms to 10s	QFN-6 (2x2)	Capacitor-set delay, reset output to MCU
	MPQ79500FS-AEC1	6	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-D voltage monitor with prog. features via I²C
N	MPQ79501FS-AEC1	6	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-B voltage monitor with prog. features via I²C
S	MPQ79504FS-AEC1	6	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-B voltage monitor with prog. features via I²C, watchdog timer
N	MPQ79505FS-AEC1	6	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-D voltage monitor with prog. features via I²C, watchdog timer
S	MPQ79520FS-AEC1	5	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-D voltage monitor with prog. features via I²C
S	MPQ79521FS-AEC1	5	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-B voltage monitor with prog. features via I²C
S	MPQ79524FS-AEC1	5	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-B voltage monitor with prog. features via I²C, watchdog timer
S	MPQ79525FS-AEC1	5	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™, ASIL-D voltage monitor with prog. features via I²C, watchdog timer
S	MPQ79530FS-AEC1	3	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-D voltage monitor with prog. features via I²C
S	MPQ79531FS-AEC1	3	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-B voltage monitor with prog. features via I²C
S	MPQ79534FS-AEC1	3	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-B voltage monitor with prog. features via I²C, watchdog timer
S	MPQ79535FS-AEC1	3	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-D voltage monitor with prog. features via I²C, watchdog timer
S	MPQ79540FS-AEC1	1	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-D voltage monitor with prog. features via I²C
S	MPQ79541FS-AEC1	1	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-B voltage monitor with prog. features via I²C
S	MPQ79544FS-AEC1	1	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-B voltage monitor with prog. features via I²C, watchdog timer
S	MPQ79545FS-AEC1	1	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ ASIL-D voltage monitor with prog. features via I²C, watchdog timer
P	MPQ79570FS-AEC1	1	2.7	70	Adj	±0.9	4	Adj	TSOT-23-8 (2.9x1.6)	MPSafe™ ASIL-D, wide V _{IN} window voltage monitor, directly monitor 48V battery
P	MPQ79571FS-AEC1	1	2.7	40	Adj	±0.9	4	Adj	TSOT-23-8 (2.9x1.6)	MPSafe™ ASIL-D, off-battery (12V) window voltage monitor
S	MPQ7940-AEC1	6	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I²C
S	MPQ7940W-AEC1	6	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I²C, watchdog timer
S	MPQ7942-AEC1	5	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I²C
S	MPQ7942W-AEC1	5	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I²C, watchdog timer

	Part Number	# of Channels	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Reset Threshold (V)	Threshold Accuracy (%)	I_o (Typ) (μ A)	Reset Delay	Package	Notes
S	MPQ7943-AEC1	3	2.7	5.5	Adj	± 0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I ² C
S	MPQ7943W-AEC1	3	2.7	5.5	Adj	± 0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I ² C, watchdog timer
N	MPQ7944-AEC1	1	2.7	5.5	Adj	± 0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I ² C
S	MPQ7944W-AEC1	1	2.7	5.5	Adj	± 0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I ² C, watchdog timer

Watchdog Timers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Reset Threshold (V)	Short Window Mode	Long Window Mode	Disable Input	I_o (Typ) (μ A)	Package
MPQ6411-AEC1	4.5	5.5	4.5	✓	✓	✓	16	SOIC-8
MPQ6411-33-AEC1	3	3.6	2.9	✓	✓	✓	10	SOIC-8

Power Sequencers

	Part Number	# of Channels	V_{IN} (Min) (V)	V_{IN} (Max) (V)	32kHz Crystal Oscillator Driver	RTC	System Reset Signal	Watchdog Timer	Package	Notes
	MPQ79700FS-AEC1	12	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I ² C
S	MPQ79701FS-AEC1	12	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I ² C
S	MPQ79710FS-AEC1	10	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I ² C
S	MPQ79711FS-AEC1	10	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I ² C
S	MPQ79720FS-AEC1	8	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I ² C
S	MPQ79721FS-AEC1	8	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I ² C
S	MPQ79730FS-AEC1	6	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I ² C
S	MPQ79731FS-AEC1	6	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I ² C
S	MPQ7960-AEC1	12	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I ² C
S	MPQ7961-AEC1	10	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I ² C
S	MPQ7962-AEC1	8	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I ² C
S	MPQ7963-AEC1	6	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I ² C

Current-Sense Monitors

Part Number	Common-Mode Voltage (Max) (V)		Common-Mode Voltage (Min) (V)		Supply Voltage (Max) (V)		Supply Voltage (Min) (V)		Input Offset ($\pm$) (Max) (mV)		Voltage Gain (V/V)		Gain Error (Max) (%)		Common Mode Rejection (min) (dB)		Bandwidth (Typ) kHz		I_o (Max) (μ A)		Package	Notes
MPQ8112-AEC1	60	2.7	60	2.7	1	50	2	65	300	360	TSOT-23-6	-	-	-	-	-	-	-	-	-	-	-
MPQ8112A-AEC1	60	2.7	60	2.7	1	Adjustable	2	65	300	360	TSOT-23-6	-	-	-	-	-	-	-	-	-	-	-
MPQ8113-AEC1	60	2.7	60	2.7	1	50	2	65	300	360	TSOT-23-6	-	-	-	-	-	-	-	-	-	-	Adjustable maximum output voltage
MPQ8113A-AEC1	60	2.7	60	2.7	1	Adjustable	2	65	300	360	TSOT-23-6	-	-	-	-	-	-	-	-	-	-	Adjustable maximum output voltage

USB & Wireless Charging

USB PD Solutions | Buck-Boost for USB PD

	Part Number	V _{IN} (Min) (V)		V _{IN} (Abs Max) (V)		I _{OUT} (A)	I _a (Typ) (mA)	f _{SW} (kHz)	USB PD	Battery Short Protection	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	I ² C	EN Shutdown	Load-Shedding Discharge	Load-Shedding Send Alert	Package	Notes
	MPQ4214-AEC1 (Controller)	4	45	-	-	Selectable	Selectable	✓	✓	✓	-	-	✓	✓	-	QFN-27 (5x5)	Sync, FCCM		
	MPQ4210-AEC1 (Controller)	4	45	-	-	Selectable	Selectable	✓	✓	✓	-	-	✓	✓	-	QFN-27 (5x5)	Output current monitoring		
	MPQ4262-AEC1 (Hybrid)	3.6	40	5	0.13	Selectable	Selectable	✓	✓	✓	-	✓	✓	✓	✓	QFN-20 (3x5)	36V, 100W, two int. FETs, 98% peak efficiency		
	MPQ4263-AEC1 (Hybrid)	3.6	40	5	0.135	Selectable	Selectable	✓	✓	✓	-	✓	✓	✓	✓	QFN-20 (3x5)	36V, 100W, two int. FETs, 98% peak efficiency, high-side current sense		
	MPQ4232-AEC1	4.3	40	5	0.13	Selectable	Selectable	✓	✓	✓	-	✓	✓	✓	✓	QFN-19 (4x5)	22V, 60W, 4-switch converter with advanced protection, 1V to 22V V _{OUT} range		
S	MPQ4232A-AEC1	3	40	6	0.13	Selectable	Selectable	✓	✓	✓	-	✓	✓	✓	✓	QFN-19 (4x5)	36V, 60W, 4-switch converter, 1V to 24V V _{OUT} range, P2P with the MPQ4232-AEC1		

USB PD Solutions | Buck for USB PD

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _O (Typ) (mA)	f _{SW} (kHz)	USB PD	Battery Short Protection	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	i ² C	EN Shutdown Discharge	Load-Shedding Send Alert	Package	Notes
	MPQ4272-AEC1 (Dual)	1	40	6 2x (3A)	0.3	Selectable	✓	✓	✓	-	✓	✓	✓	✓	QFN-21 (4x5)	Dual-channel
N	MPQ8880A-AEC1	4	60	4.5	0.093/ 0.008	Adjustable	✓	-	✓	-	✓	✓	-	-	QFN-20 (4x5)	Supports PD3.1 EPR 240W and AVS
S	MPQ4583-AEC1	4.5	95	0.8	0.009	400	✓	-	✓	-	-	✓	-	-	QFN-19 (3x5)	Ultra-low I _O
S	MPQ9934-AEC1 (Controller)	5.5	85	30	0.4	Adjustable	✓	-	✓	-	✓	-	-	-	QFN-23 (4x4)	GaN driver capability

USB PD Solutions | Controllers for USB PD

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _O (Typ) (mA)	BC 1.2 CDP (Data)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0/QC3.0	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Int USB Switch	Line Drop Protection	USB Discharge	Fault Indication	Client Mode	Wettable Flank QFN Option	Package	Notes
	MPQ5031-AEC1 (PD)	4.5	5.5	Single	5	0.1	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	-	-	✓	QFN-20 (4x4)	USB PD 3.0+ PPS controller, meets PowerShare specs	
N	MPQ5038-AEC1 (PD)	4.5	5.5	Single	5	0.1	✓	✓	✓	✓	✓	-	✓	✓	-	✓	✓	-	-	✓	QFN-20 (4x4)	USB PD 3.0+ PPS controller, 7 LDOs, P2P with the MPQ5031, meets PowerShare specs	
	MPF52000-AEC2	4.6	5.5	Dual	-	0.007	✓	✓	✓	✓	✓	✓	✓	✓	-	-	✓	✓	-	✓	QFN-24 (4x4)	USB PD3.1, MCU-based controller	
N	MPF52001-AEC2	4.6	5.5	Single	-	0.007	✓	✓	✓	✓	✓	✓	✓	✓	-	-	✓	✓	-	✓	QFN-24 (4x4)	USB PD3.1, MCU-based controller, supports DP	
N	MPF52003-AEC2	4.6	5.5	Triple	-	0.007	✓	✓	✓	✓	✓	✓	✓	✓	-	-	✓	✓	-	✓	QFN-40 (5x5)	USB PD3.1, MCU-based controller	

USB PD Solutions | All-in-One USB PD Solutions

Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _Q (Typ) (mA)	f _{SW} (kHz)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0/QC3.0	Type-C DFP (PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Int USB Switch	Line Drop Compensation	Package	Notes
MPQ4242-AEC1	4	40	Single	3	0.1	Selectable	✓	✓	✓	✓	-	✓	✓	-	✓	✓	QFN-22 (4x5)	Buck-boost int., supports PD3.0/QC4+ BC1.2/QC3+FCP protocols
MPQ4242B-AEC1	4	40	Single	3	0.1	Selectable	✓	✓	✓	✓	-	✓	✓	-	✓	✓	QFN-22 (4x5)	Buck-boost int., supports PD3.1/QC4+ BC1.2/QC3+FCP protocols
MPQ4241-AEC1	4.5	24	Single	3	0.15	Selectable	✓	✓	✓	✓	-	✓	✓	-	✓	✓	QFN-21 (3x4)	Buck int., supports PD3.1/QC4+ BC1.2/QC3+FCP protocols

All-In-One USB Type-C/A Charging-Only Port Solutions | Dual USB Type-C/A Charging Port Solutions (Buck with Integrated CLS, Protocol Detection)

Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _Q (Typ) (mA)	f _{SW} (kHz)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	Package	Notes
MPQ4487A-AEC1	6	40	Dual	3 (x2)	1	Selectable	-	-	-	✓	✓	✓	✓	✓	✓	QFN-26 (5x5)	Meets latest MFI3.3 specs
MPQ4488B-AEC1	6	40	Dual	3 (x2)	1	Adjustable	✓	✓	✓	✓	✓	✓	✓	✓	✓	QFN-26 (5x5)	Meets latest MFI3.3 specs
N MPQ4253-AEC1	6	40	Dual	3 (x2)	0.054	Selectable	✓	✓	✓	✓	✓	(Type-C)	-	✓	✓	QFN-26 (5x5)	Low I _Q
N MPQ4276-AEC1	6	40	Dual	3 (x2)	0.8	Adjustable	-	-	-	✓	-	✓	-	✓	✓	QFN-26 (5x5)	USB 1/2 fault indication, PFM mode, EN and FAULT pins for USB 1/2
MPQ4253B-AEC1	6	40	Dual	3 (x2)	0.054	Selectable	✓	✓	✓	✓	✓	(Type-C)	-	✓	✓	QFN-26 (5x5)	MFI OCP current > 4.8A
S MPQ4252-AEC1	6	36	Dual	3 (x2)	0.3	420	✓	✓	✓	✓	✓	✓	✓	✓	✓	QFN-19 (3x5)	Smaller size, cost-effective
S MPQ4257	6	36	Dual	3 (x2)	0.3	420	-	-	-	✓	✓	✓	✓	✓	✓	QFN-16 (3x4)	Separate enable control and fault indication, smaller size, cost-effective

All-In-One USB Type-C/A Charging-Only Port Solutions | Single USB Type-C/A Charging Port Solutions (Buck with Integrated CLS, Protocol Detection)

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _O (Typ) (mA)	f _{SW} (kHz)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0	QC3.0	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Low-Dropout Protection	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	EN Shutdown Discharge	USB Discharge	Wettable Flank QFN Option	Package	Notes
	MPQ4475-E-AEC1	7	40	Single	2.5	1.6	Selectable	✓	✓	✓	-	-	-	✓	-	-	✓	✓	✓	✓	✓	✓	-	QFN-25 (4x4)	Prog. line drop compensation
	MPQ4228-AEC1	4.2	40	Single	3	-	Selectable	✓	✓	✓	-	-	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	QFN-22 (4x4)	Type-C 5V/3A, DFP port
	MPQ4228-Q-AEC1	4.2	40	Single	3	-	Selectable	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	QFN-22 (4x4)	-
S	MPQ4251-AEC1	6	36	Single	3	0.3	420	✓	✓	✓	-	-	✓	✓	✓	-	✓	✓	✓	-	✓	-	✓	QFN-19 (3x5)	Smaller size, cost-effective

All-In-One Data Port Products | Dual USB Type-C/A Charging Data Ports (Buck with Integrated CLS, USB 2.0 Data Switch, Protocol Detection)

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _O (Typ) (mA)	f _{SW} (kHz)	BC 1.2 CDP (Data)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Int USB Switch	Line Drop Compensation	Package	Notes
	MPQ4485-AEC1	6	40	Dual	3 (x2)	-	450	✓ (USB2)	✓	✓	✓	✓	✓	✓	✓	✓	QFN-26 (5x5)	FCCM

All-In-One Data Port Products | Single USB Type-C/A Charging Data Ports (Buck + Integrated CLS, USB 2.0 Data Switch, Protocol Detection)

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _O (Typ) (mA)	f _{SW} (kHz)	BC 1.2 CDP (Data)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Low-Dropout Protection	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	EN Shutdown Discharge	USB Discharge	Wettable Flank QFN Option	Package	Notes
	MPQ4228-C-AEC1	4.2	40	Single	3	-	Selectable	✓	-	-	-	✓	✓	✓	-	✓	✓	(Adj)	✓	✓	✓	✓	QFN-22 (4x4)	Supports CDP mode
	MPQ4483-AEC1	4.2	40	Single	3	-	Selectable	✓	✓	-	-	-	✓	-	✓	-	✓	(Adj CC Limit)	✓ (Adj)	✓	-	✓	QFN-25 (4x5)	Supports BC1.2 DCP and CDP modes, bidirectional USB 2.0 high-speed data switch, 3.55A/3.75A CC I _{OUT} limit

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _a (Typ) (mA)	f _{SW} (kHz)	BC 1.2 CDP (Data)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Low-Dropout Mode	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	EN Shutdown Discharge	USB Discharge	Wettable Flank QFN Option	Package	Notes
	MPQ4483-FD-AEC1	4.2	40	Single	3	-	Adjustable	✓	✓	-	-	-	✓	-	✓	✓	✓	(Adj CC Limit)	✓ (Adj)	✓	-	✓	QFN-25 (4x5)	Supports BC1.2 DCP and CDP modes, bidirectional USB 2.0 high-speed data switch, 3.55A/3.75A CC I _{OUT} limit
S	MPQ4229-C-AEC1	4.2	40	Single	3	-	Selectable	✓	-	-	-	✓	✓	✓	✓	-	✓	✓	✓ (Adj)	✓	✓	✓	QFN-22 (4x4)	P2P with the MPQ4228-C, up to 1.5V line drop comp.

USB Type-C/A Port Controllers and Buck Products | Buck Only

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	I _{OUT} (A)	I _a (Typ) (mA)	f _{SW} (kHz)	Battery Short Protection	Low-Dropout Mode	Int USB Switch	Line Drop Compensation	EN Shutdown Discharge	Wettable Flank QFN Option	Package
	MPQ4480-AEC1	4.2	40	6	1	Selectable	✓	✓	✓ (Adj CC Limit)	✓	✓	✓	QFN-25 (4x5)
	MPQ4423C-AEC1	4	40	6	0.75	Selectable	-	-	-	-	✓	✓	QFN-16 (3x4)

USB Type-C/A Port Controllers and Buck Products | USB Type-C/A Charging Port Controllers

Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Dual/Single Ports	I _{OUT} (A)	I _o (Typ) (mA)	BC 1.2 CDP (Data)	BC 1.2 DCP	1.2V/1.2V Mode	Divider Mode 3	QC2.0/QC3.0	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Int USB Switch	Line Drop Compensation	USB Discharge	Fault Indication	Client Mode	Wettable Flank QFN Option	Package	Notes
MPQ5029-AEC1	2.7	24	Single	3	0.155	-	✓	✓	✓	✓	✓	✓	✓	✓ (Adj)	✓ (Adj)	✓	-	-	✓	QFN-14 (2x3)	NTC pin for thermal management, adj. OVP threshold, input OV shutdown protection	
MPQ5029-C-AEC1	3	24	Single	3	0.175	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	QFN-14 (2x3)	-	

Wireless Charging Solutions | Step-Down/Step-Up Converters

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_O (Typ) (mA)	f_{SW} (kHz)	Battery Short Protection	Frequency Spread Spectrum	Line Drop Compensation	PG	EN Shutdown	Load Shedding	Package	Notes
	MPQ4262-AEC1 (Hybrid)	3.6	40	5	0.13	Selectable	✓	✓	✓	✓	✓	✓	QFN-20 (3x5)	36V, 100W, two int. FETs, 98% peak efficiency
	MPQ4263-AEC1 (Hybrid)	3.6	40	5	0.13	Selectable	✓	✓	✓	✓	✓	✓	QFN-20 (3x5)	36V, 100W, two int. FETs, 98% peak efficiency, high-side current sense
	MPQ4232-AEC1	4.3	40	5	0.13	Selectable	✓	✓	✓	✓	✓	✓	QFN-19 (4x5)	22V/5A, 60W, 4-switch converter with advanced protection
S	MPQ4232A-AEC1	3	40	6	0.13	Selectable	✓	✓	✓	✓	✓	✓	QFN-19 (4x5)	36V/6A, 60W, 4-switch converter, P2P with the MPQ4232-AEC1

Wireless Charging Solutions | Full-Bridge Power Stages for Highly Integrated Wireless Power Transmitters

	Part Number	H-Bridge V_{IN} (Min) (V)	H-Bridge V_{IN} (Abs Max) (V)	H-Bridge I_{OUT} (A)	H-Bridge f_{SW} (kHz)	I_O (Typ) (mA)	Buck V_{IN} (Min) (V)	Buck V_{IN} (Abs Max) (V)	Buck I_{OUT} (A)	Amplifier Accuracy	Frequency Spread Spectrum	Package	Notes
N	MPQ4280-AEC1	4.7	40	15	Selectable	0.9	1	40	0.5	1%	-	QFN-22 (4x5)	Integrated 36V buck and 5V/65mA LDO
S	MPQ4282-AEC1	1	32	20	Selectable	0.08	4.5	40	1.5	1%	✓	QFN-27 (4x5)	Integrated 1.5A buck

Motor Drivers

Pre-Drivers

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Topology	# of Channels	I _{OUT} per Channel (mA)	f _{SW} (kHz)	Dimming Modes	LED Protection	Channel Current Matching (%)	Interface
N	MPQ6590A-AEC1	7.5	80	80	-	1	1	ENBL/ ON	✓	QFN-11 (3x4)	High-side MOSFET driver
	MPQ1922-AEC1	5	15	100	1	3	4	INH/ INL	✓	QFN-22 (4x5)	Gate driver, int. current-sense amp, interlock function
	MPQ1923-AEC1	5	17	100	1	7	8	INH/ INL	-	QFN-10 (4x4), QFN-8 (4x4)	High-frequency gate driver, 7.2ns/5.5ns rise/fall (1nF load)
	MPQ6528-AEC1	5	60	60	2	0.8	1	EN/ PWM	✓	QFN-28 (4x5)	H-bridge gate driver
	MPQ6641-AEC1	6	40	40	2	0.8	1	EN/IN, SPI	✓	QFN-32 (5x5)	H-bridge with SPI and internal current-sense amp
	MPQ6530-AEC1	5	60	60	3	0.8	1	EN/ PWM	✓	QFN-28 (4x5)	For BLDC motors
	MPQ6531-AEC1	5	60	60	3	0.8	1	HS/LS	✓	QFN-28 (4x5)	For BLDC motors
	MPQ6532-AEC1	5	60	60	3	0.8	1	PWM/ DIR, 3 Hall Inputs	✓	QFN-28 (4x5)	Hall inputs, for BLDC
	MPQ6533-AEC1	6	40	40	3	0.8	1	EN/IN, SPI	✓	QFN-32 (5x5)	Three-channel LDO regulator, current-sense amp
S	MPQ6633A-AEC1	5	50	50	3	0.7	1.1	HS/LS	✓	QFN-34 (4x5)	Integrated 50mA, 2% accurate LDO and 1-channel current-sense amp
S	MPQ6633B-AEC1	5	50	50	3	0.7	1.1	HS/LS	✓	QFN-48 (6x6)	Integrated 50mA, 2% accurate LDO and 3-channel current-sense amp
N	MPQ6539-AEC1	8	80	80	3	0.8	1	HS/LS	-	QFN-28 (4x5)	Internal LDO for external NPN, 1-channel current-sense amp, prog. OCP
N	MPQ6632-AEC1	6	50	55	3	1	1	PWM/ DC	✓	QFN-28 (5x5)	Prog. speed curve, open-/closed-loop control, 1/3 channel Hall inputs
N	MPQ6635-AEC1	6	35	40	3	1	1	PWM/ DC	✓	QFN-28 (5x5)	Prog. speed curve, open-/closed-loop control, sensorless
S	MPQ6620A-AEC1	6	40	-	8	0.064	0.064	SPI	✓	QFN-48 (7x7)	8 channels with 2x current-sense amps, AEC-Q100 qualified
S	MPQ6620B-AEC1	6	40	-	8	0.064	0.064	SPI	✓	QFN-40 (6x6)	8 channels, AEC-Q100 qualified

Single/Multi Half-Bridge Drivers (Integrated MOSFET)

	Part Number		Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	# of Half-Bridges	$R_{DS(ON)}$ (HS + LS) (mΩ)	Typ Shutdown I_o (μA)	Peak Output Current (A)	Input Control Interface	Wettable Flank Option	Package	Notes
	MPQ6610-AEC1	4	55	1	220	1300	3	EN/IN	-		TSOT23-8, SOIC-8	Power driver
	MPQ8039-AEC1	7.5	28	1	100	2.5	9	PWM	-		SOIC-8E	General-purpose, high frequency, for audio amps wireless charging, etc.
	MPQ6614-AEC1	5	35	2	500	0.1	3	IN1/IN2	✓		QFN-8 (2x3)	H-bridge DC motor driver
	MPQ6519-AEC1	3	28	2	130	2	5	PWM	-		QFN-19 (4x4)	H-bridge current regulator
	MPQ6619-AEC1	2.7	28	2	130	1	5	IN1/IN2	✓		QFN-19 (4x4)	H-bridge DC motor driver
	MPQ6612A-AEC1	4	40	2	103	2.8	5 (RMS)	IN1/IN2	✓		QFN-18 (3x4)	H-bridge with current sense, IN1 and IN2 inputs
	MPQ6612A-D-AEC1	4	40	2	103	2.8	5 (RMS)	ENBL/DIR	✓		QFN-18 (3x4)	H-bridge with current sense, ENBL and DIR inputs
S	MPQ6611-AEC1	2.7	32	2	40	1	7	SPI	✓		QFN-20 (4x4)	H-bridge with configurable slew rate
S	MPQ6611B-AEC1	2.7	32	2	40	1	15	SPI	✓		QFN-20 (4x4)	H-bridge with prog. slew rate, AEC-Q100 qualified
S	MPQ6611H-B-AEC1	2.7	32	2	40	1	15	Prog Control Modes	✓		QFN-20 (4x4)	H-bridge with 3 configurable input logics and prog. slew rate, AEC-Q100 qualified
	MPQ6615-AEC1	4.75	40	2	22	1	8 (RMS)	Prog Control Modes	✓		TQFN-26 (6x6)	H-bridge motor driver, int. current-sense amp
	MPQ6523-AEC1	7	28	3	1100	1.5	0.9	SPI	✓		QFN-24 (4x4)	Independent half-bridge control, comprehensive protections, serial data interface up to 3MHz
	MPQ6524-AEC1	7	28	4	1100	1.5	0.9	SPI	✓		QFN-24 (4x4)	Independent half-bridge control, comprehensive protections
	MPQ6526-AEC1	7	28	6	1100	1.8	0.9	SPI	✓		QFN-24 (4x4), QFN-24 (5x5)	Independent half-bridge control, comprehensive protections
	MPQ6626-AEC1	5.5	40	6	1300	1	0.8	SPI	-		TSSOP-28EP	Independent half-bridge control, comprehensive protections, SPI interface up to 5MHz
	MPQ6628-AEC1	5.5	40	8	1300	1	0.8	SPI	-		TSSOP-28EP	Independent half-bridge control, comprehensive protections, SPI interface up to 5MHz
	MPQ6527-AEC1	5.5	40	10	1300	1	0.8	SPI	-		TSSOP-28EP	Independent half-bridge control, comprehensive protections, SPI interface up to 5MHz

Integrated BLDC Motor Drivers

	Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	# of Half-Bridges	$R_{DS(on)}$ (HS + LS) (mΩ)	Typ Shutdown I_o (μA)	Peak Output Current (A)	Input Control Interface	Wettable Flank Option	Package	Notes
	MPQ6517B-AEC1	3.3	16	2	850	-	2	PWM	-	TSOT23-6, TSOT23-6-SL	Single-phase, integrated Hall sensor, prog. speed curve, open-loop control
	MPQ6653A-AEC1	3.5	35	2	960	120 (Standby)	1.2	PWM/DC	-	TSOT23-6, TSOT23-6-SL, TQFN-6 (2x3)	Single-phase, integrated Hall sensor, prog. speed curve, open-/closed-loop control
N	MPQ6653B-AEC1	3.5	35	2	960	120 (Standby)	1.2	PWM/DC	-	TSOT23-6-SL	Add 2/3 FG option for 6-poles fan application based on the MPQ6653A
S	MPQ6653C-AEC1	3.5	35	2	960	120 (Standby)	1.2	PWM/DC	-	TSOT23-6-L, TSOT23-6-SL, TQFN-6 (2x3)	Add 2/3 FG option for 6-poles fan application based on the MPQ6653A
	MPQ6631H-AEC1	3.6	35	3	160	130 (Standby)	3	PWM/DC	✓	TQFN-26 (3x4)	3-phase, prog. speed curve, open-/closed-loop control, 1/3 Hall inputs
	MPQ6634-AEC1	4.5	35	3	500	40 (Standby)	2	PWM/DC	✓	TQFN-12 (3x4)	3-phase, sensorless, prog. speed curve, open-/closed-loop control
S	MPQ6547A-AEC1	4	32	3	90	1	3 (RMS)	PWM/ENBL	✓	QFN-18 (3x4)	3-phase power stage
	MPQ6541-AEC1	4.75	40	3	30	1	8 (RMS)	PWM/ENBL	✓	TQFN-26 (6x6)	3-phase power stage, PWM/ENBL inputs, int. current-sense amp
	MPQ6541A-AEC1	4.5	40	3	30	1	8 (RMS)	HS/LS	✓	TQFN-26 (6x6)	3-phase power stage, HS/LS inputs, int. current-sense amp

Stepper Motor Drivers

	Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	# of Half-Bridges	$R_{DS(on)}$ (HS + LS) (mΩ)	Typ Shutdown I_o (μA)	Peak Output Current (A)	Step Mode	Input Control Interface	Wettable Flank Option	Package	Notes
N	MPQ6605D-AEC1	4.5	52	-	LS: 350	2	1.5	-	Parallel	-	QFN-24 (4x4)	4-channel, low-side driver
S	MPQ6606-AEC1	4.5	52	-	LS: 700	-	0.75	-	SPI	-	TSSOP-20EP	8-channel, low-side driver
N	MPQ6609-AEC1	4	32	4	580	1	1	1, 1/2, 1/4, 1/8, 1/16, 1/32	SPI	✓	QFN-18 (3x4)	Bipolar stepper, int. current sense, rotor stall detection, BEMF measurement
	MPQ6600L-AEC1	4.5	35	4	365	2.5	1.5	1, 1/2, 1/4, 1/8	Indexer	✓	QFN-24 (4x4)	Bipolar, microstepping, int. current sense and latch-off
S	MPQ6603-AEC1	8	55	4	115	1	5	1, 1/2, 1/4, 1/8	Parallel, Indexer	✓	QFN-25 (4.5x5)	Dual full-bridge driver, selectable input interface, AEC-Q100 qualified

Load Switches

Load Switches | 5V Load Switches

	Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	Load Current (A)	$R_{DS(on)}$ (m Ω)	I_o (Typ) (mA)	Adj. Current Limit	Power Good	Wettable Flank QFN Option	Package
	MPQ5071-AEC1	3	5.5	0.5	50	0.18	✓	✓	-	QFN-12 (2x2)
	MPQ5072-AEC1	3	5.5	1	50	0.18	✓	✓	-	QFN-12 (2x2)
	MPQ5073-AEC1	3	5.5	2	50	0.18	✓	✓	-	QFN-12 (2x2)
	MPQ5074-AEC1	3	5.5	3	10	0.22	✓	✓	✓	QFN-13 (2.5x3)
	MPQ5075A-AEC1	3	5.5	5	10	0.22	✓	✓	✓	QFN-13 (2.5x3)
	MPQ5077A-AEC1	3	5.5	7	10	0.22	✓	✓	✓	QFN-13 (2.5x3)
S	MPQ5073N-AEC1	3	5.5	2	50	0.18	-	-	-	SOT-563
S	MPQ5071N-AEC1	3	5.5	1	50	0.18	-	-	-	SOT-563

Load Switches | POC (16V) Load Switches

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Load Current (A)	$R_{DS(on)}$ (m Ω)	I_o (Typ) (mA)	Adj. Current Limit	ASIL-B	Wettable Flank QFN Option	Package	Notes
N	MPQ5862-AEC1	5	26.5	1.5	90	0.005	✓	-	✓	QFN-17 (3x4)	2-ch, smart HSS, $\pm 3\%$ high-accuracy current-sensing, full diagnostics and protections
N	MPQ5864-AEC1	5	26.5	0.8	200	0.005	✓	✓	✓	QFN-17 (3x4)	4-ch, smart HSS, $\pm 3\%$ high-accuracy current-sensing, full diagnostics and protections
N	MPQ77220FS-AEC1	5	26.5	1.5	90	0.005	✓	-	✓	QFN-17 (3x4)	2-ch, smart HSS, $\pm 3\%$ high-accuracy current-sensing, full diagnostics and protections, ASIL-B, ISO 26262 compliant
N	MPQ77240FS-AEC1	5	26.5	0.8	200	0.005	✓	✓	✓	QFN-17 (3x4)	4-ch, smart HSS, $\pm 3\%$ high-accuracy current-sensing, full diagnostics and protections, ASIL-B, ISO 26262 compliant

Load Switches | 40V Load Switches

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Load Current (A)	R _{DS(on)} (mΩ)	I _o (Typ) (mA)	Adj. Current Limit	Fault Pin	Wettable Flank QFN Option	Package	Notes
	MPQ5066-AEC1	6	38	6	7	1	✓	✓	-	QFN-22 (3x5)	ISO 16750-1 compliant
	MPQ5068-AEC1	6	38	8	7	1	✓	✓	-	QFN-22 (3x5)	ISO 16750-1 compliant
	MPQ5069-AEC1	6	38	10	7	1	✓	✓	-	QFN-22 (3x5)	ISO 16750-1 compliant
	MPQ5871-AEC1	5	42	1	60	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-ch, smart HSS, ±4% high-accuracy current-sensing
	MPQ5872-AEC1	5	42	2	60	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-ch, smart HSS, ±4% high-accuracy current-sensing
	MPQ5873-AEC1	5	42	3	60	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-ch, smart HSS, ±4% high-accuracy current-sensing
S	MPQ5870L-AEC1	4	28	0.5	300	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-ch, smart HSS, ±1% high-accuracy current-sensing
S	MPQ5892-AEC1	4	42	5	30	0.8	✓	✓	✓	QFN-21 (4x5)	2-ch, 5A/ch smart HSS
S	MPQ5894-AEC1	4	42	3	65	0.8	✓	✓	✓	QFN-21 (4x5)	4-ch, 3A/ch smart HSS
P	MPQ5801-AEC1	6	42	40	1	1.45	-	✓	-	PQFN-28 (6x8)	36V, e-fuse and smart HSS
P	MPQ5801N-AEC1	6	42	30	1.7	1.45	-	✓	✓	QFN-30 (5x6)	36V, e-fuse and smart HSS

Load Switches | 60V Load Switches

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Load Current (A)	R _{DS(on)} (mΩ)	I _o (Typ) (mA)	Adj. Current Limit	Fault Pin	Wettable Flank QFN Option	Package	Notes
S	MPQ5893-AEC1	4	65	5	30	0.8	✓	✓	✓	QFN-21 (4x5)	2-channel, 5A/ch smart HSS
S	MPQ5895-AEC1	4	65	3	65	0.8	✓	✓	✓	QFN-21 (4x5)	2-channel, 3A/ch smart HSS
S	MPQ5896-AEC1	4	65	3	65	0.8	✓	✓	✓	QFN-21 (4x5)	4-channel, 3A/ch smart HSS
P	MPQ5870-AEC1	4	42	0.5	300	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-ch, smart HSS, ±1% high-accuracy current-sensing

Load Switches | 80V Load Switches

	Part Number	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	Load Current (A)	R _{DS(ON)} (mΩ)	I _Q (Typ) (mA)	Adj. Current Limit	Fault Pin	Wettable Flank QFN Option	Package	Notes
S	MPQ5882-AEC1	6	80	25	2.5	1.5	✓	✓	-	QFN-30 (6x8)	E-fuse and smart HSS
S	MPQ5884-AEC1	6	80	15	4.5	1.5	✓	✓	✓	QFN-30 (5x6)	E-fuse and smart HSS
S	MPQ5887-AEC1	6	80	10	7.5	1.5	✓	✓	✓	QFN-30 (5x6)	E-fuse and smart HSS
S	MPQ5889-AEC1	6	80	7	15	1.5	✓	✓	✓	QFN-30 (5x6)	E-fuse and smart HSS
P	MPQ5885-AEC1	3.5	80	15	4.5	1.5	✓	✓	✓	QFN-33 (6x6)	E-fuse and smart HSS w/ SPI interface
P	MPQ5886-AEC1	3.5	80	10	8.5	1.5	✓	✓	✓	QFN-33 (6x6)	E-fuse and smart HSS w/ SPI interface
P	MPQ5888-AEC1	3.5	80	7	15	1.5	✓	✓	✓	QFN-33 (6x6)	E-fuse and smart HSS w/ SPI interface
P	MPQ5886D-AEC1	3.5	80	10	8.5	1.5	✓	✓	✓	QFN-33 (6x6)	2-channel, e-fuse and smart HSS w/ SPI interface
P	MPQ5888D-AEC1	3.5	80	7	15	1.5	✓	✓	✓	QFN-33 (6x6)	2-channel, e-fuse and smart HSS w/ SPI interface
P	MPQ77415-AEC1	3.5	80	15	4.5	1.5	✓	✓	✓	QFN-33 (6x6)	E-fuse and smart HSS w/ SPI interface, ASIL-B, ISO 26262 compliant
P	MPQ77416-AEC1	3.5	80	10	8.5	1.5	✓	✓	✓	QFN-33 (6x6)	E-fuse and smart HSS w/ SPI interface, ASIL-B, ISO 26262 compliant
P	MPQ77418-AEC1	3.5	80	7	15	1.5	✓	✓	✓	QFN-33 (6x6)	E-fuse and smart HSS w/ SPI interface, ASIL-B, ISO 26262 compliant
P	MPQ77426-AEC1	3.5	80	10	8	1.5	✓	✓	✓	QFN-33 (6x6)	2-channel, e-fuse and smart HSS w/ SPI interface, ASIL-B, ISO 26262 compliant
P	MPQ77428-AEC1	3.5	80	7	15	1.5	✓	✓	✓	QFN-33 (6x6)	2-channel, e-fuse and smart HSS w/ SPI interface, ASIL-B, ISO 26262 compliant
P	MPQ5893H-AEC1	3.5	70	5	30	0.8	✓	✓	✓	QFN-21 (4x5)	2-channel, 5A/ch smart HSS
P	MPQ5895H-AEC1	3.5	70	3	65	0.8	✓	✓	✓	QFN-21 (4x5)	2-channel, 3A/ch smart HSS
P	MPQ5896H-AEC1	3.5	70	3	65	0.8	✓	✓	✓	QFN-21 (4x5)	4-channel, 3A/ch smart HSS
P	MPQ5897-AEC1	3.5	80	2	175	0.1	✓	✓	✓	QFN-21 (4x5)	4-channel, 2A/ch smart HSS

Reverse Battery Protection Controllers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	Reverse Battery (V)	Min Gate Drive Current (mA)	Forward Voltage Drop (mV)	Shutdown I_Q (Typ) (μ A)	Power Good Int Boost Converter	Package	Notes	
S	MPQ5816-AEC1	3	42	-40	110/2000	200	4	✓	-	QFN-21 (3x4)	Integrated diode, low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO 16750-2 compliant
S	MPQ5817-AEC1	3	42	-36	110/2000	200	4	✓	-	QFN-21 (4x5)	Integrated diode, low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO 16750-2 compliant
S	MPQ5836-AEC1	3	55	-36	110/2000	200	4	✓	-	QFN-21 (3x4)	Integrated diode, low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO 16750-2 compliant
	MPQ5850-AEC1	3	42	-36	170/430	20	4	✓	✓	TSOT23-8	Low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO 16750-2 compliant
	MPQ5852-AEC1	3	42	-36	170/430	20	4	✓	✓	QFN-13 (3x3)	Low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO 16750-2 compliant, two voltage monitors
N	MPQ5852A-AEC1	3	42	-36	170/430	20	4	✓	✓	QFN-13 (3x3)	Low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO 16750-2 compliant, two voltage monitors, different deglitch time for LVM and BVM available
N	MPQ5857-AEC1	4.5	42	-42	800/1300	20	8	✓	✓	QFN-16 (3x4)	Back-to-back FET control, AC rectification up to 100kHz, OCP/OVP and monitoring, ISO 7637 and ISO 16750 compliant
P	MPQ5858-AEC1	4.5	80	-80	800/1300	20	8	✓	✓	QFN-16 (3x4)	Low-voltage start-stop transient operation, AC rectification up to 100kHz, ISO 16750-2 compliant, 2 voltage monitors
N	MPQ5823-AEC1	5	40	-0.3	-	-	2.2	✓	-	QFN-24 (4x4)	-

Analog Switches

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Switch Current (A)	$R_{DS(ON)}$ (Ω)	I_Q (Typ) (μ A)	t_{ON}/t_{OFF} (ns)	Bandwidth (MHz)	Wettable Flank QFN Option	Package	Notes
MPQ2735-AEC1	1.65	5.5	0.1	0.25	1	29/23	50	-	QFN-10 (2x2)	Low-voltage, 0.45 Ω dual SPDT analog switches, separate control inputs

Class-D Audio Amplifiers

	Part Number	V _{IN}	V _{IN} (Min) (V)	V _{IN} (Abs Max) (V)	P _{OUT} (W)	R _{DS(on)}	Idle Current (Typ) (mA)	f _{SW} (kHz)	Efficiency (%)	THD+N at 1kHz Input (%)	PSRR (dB)	SNR (dB)	Output Noise (μV)	Type	Load Diagnostics	Selectable Gain	Power Limiter	Digital Interface	Wettable Flank QFN Option	Package	Notes
	MPQ7795-AEC1	3.9	42	24.5 @ 14.4V, 4Ω Load	150	6.5	330 to 2.2M	92 @ 470kHz, 90 @ 2MHz	0.09 @ 1W, 470kHz	71 @ 100Hz	102	115	Mono, BTL	✓	✓	✓	I²C	✓	QFN-24 (4x4)	Low EMI, mono BTL with diagnostics	
	MPQ7790-AEC1	5.5	18	9 @ 12V, 8Ω Load	300	5	300	90	0.15 @ 5W (8Ω), 300kHz	50	102	115	Mono, BTL	-	✓	✓	-	-	TSSOP -20EP	Low EMI, analog input, for mono speaker in bridge-tied load configuration	
S	MPQ7793-AEC1	4	42	75W x 4 @ 14V, 4Ω Load	60	35	432 to 2.2M	90	0.01 @ 1W	75	110	40	BTL	✓	✓	-	I²C	-	SSOP56 -EPR	Low EMI with frequency spread spectrum	
S	MPQ7794-AEC1	4	42	75W x 4 @ 14V, 4Ω Load	60	35	432 to 2.2M	90	0.01 @ 1W	75	110	40	BTL	✓	✓	-	I²C	-	SSOP56 -EPR	Low EMI with frequency spread spectrum	

Position & Current Sensors

Integrated Current Sensors

	Part Number	Current Range (A)	V _{CC} (V)	Over-Temperature Accuracy	Temp Range (°C)	Isolation Voltage (V _{RMS})	Working Voltage for Basic Isolation (V _{RMS})	Working Voltage for Reinforced Isolation (V _{RMS})	Bandwidth (kHz)	Over-Current Detection Voltage Reference	Primary Conductor Resistance	UL Certification	Package	Notes	
N	MCQ1805	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	3000	500	-	100	✓	-	0.9	✓ + TUV	SOIC-8	AEC-Q100, coreless, ratiometric analog output, immune to external magnetic field gradients
	MCQ1806	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	3000	500	-	100	-	-	0.9	✓	SOIC-8	AEC-Q100, coreless, ratiometric analog output
S	MCQ1810	±10, ±20, ±30, ±40, ±50, ±65, ±80, ±100	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	0.3	Planned	SOIC-10W	AEC-Q100, coreless, zero current reference, 0.3mΩ low primary conductor resistance, bi- or unidirectional sensing, ratiometric or absolute analog output, OCD with 1μs response time

	Part Number	Current Range (A)	V _{CC} (V)	Over-Temperature Accuracy	Temp Range (°C)	Isolation Voltage (V _{RMS})	Working Voltage (V _{RMS})	Working Voltage for Basic Isolation (V _{RMS})	Bandwidth (kHz)	Over-Current Detection for Reinforced Isolation (V _{RMS})	Voltage Reference	Primary Conductor Resistance (mΩ)	UL Certification	Package	Notes
S	MCQ1812	±10, ±20, ±30, ±40, ±50, ±65, ±80	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	0.45	Planned	SOIC-16W	AEC-Q100, coreless, zero current reference, bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1μs response time
S	MCQ1814	±5, ±10, ±20, ±30, ±40, ±50, ±65, ±80	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	0.45	Planned	SOIC-16W	AEC-Q100, coreless, zero current reference, bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1μs response time
	MCQ1823	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	100	100	-	120	✓	-	0.6	✓	QFN-12 (3x3)	AEC-Q100, coreless, bi- or unidirectional sensing, ratiometric or absolute analog output, immune to external magnetic field gradients
S	MCQ1880	±50, ±100, ±150, ±200	3.3, 5	2%	-40 to +150	100	100	-	350	-	-	0.2	-	PSOF-7	AEC-Q100, bi- or unidirectional sensing, 0.2mΩ primary conductor resistance, high precision, ratiometric or absolute analog output
P	MCQ1809	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2%	-40 to +125	3000	550	-	350	✓	-	0.5	-	SOIC-8	AEC-Q100, coreless, ratiometric analog output

MagAlpha™ Magnetic Position Sensors

Part Number	±3σ Resolution	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Cutoff Frequency (Hz)	Latency at Constant Speed (μs)	Magnetic Field Detection	Temperature Range (°C)	Package	Wettable Flanks	Notes
MAQ430	12-Bit	SPI, UVW, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-	-40 to +150	QFN-16 (3x3)	✓	AEC-Q100
MAQ470	12-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	✓	-40 to +150	QFN-16 (3x3)	✓	AEC-Q100

	Part Number	±3σ Resolution	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Cutoff Frequency (Hz)	Latency at Constant Speed (μs)	Magnetic Field Detection	Temperature Range (°C)	Package	Wettable Flanks	Notes
	MAQ473	10-Bit to 14-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	23 to 6k	8	✓	-40 to +150	QFN-16 (3x3)	✓	AEC-Q100, prog. filter
	MAQ800	8-Bit	SPI, SSI	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	✓	-40 to +125	QFN-16 (3x3)	✓	Optimized for automotive HMI applications, SSI output
	MAQ820	8-Bit	SPI, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	✓	-40 to +125	QFN-16 (3x3)	✓	Optimized for automotive HMI applications, SSI output
	MAQ850	8-Bit	SPI, PWM	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	✓	-40 to +125	QFN-16 (3x3)	✓	Optimized for automotive HMI applications, SSI output
N	MAQ600A	12-Bit to 15-Bit	SPI, ABZ, PWM, UVW, SSI	3 to 3.6	7.5	20+ (No Upper Limit)	75 to 17k	0	✓	-40 to +150	QFN-16 (3x3)	✓	AEC-Q100, TMR front-end, high accuracy and BW, 0.6° INL (<0.1° INL through user calibration w/ 32-word lookup table)

MagDiff™ Magnetic Position Sensors with Stray Field Immunity

	Part Number	±3σ Resolution	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Cutoff Frequency (Hz)	Latency at Constant Speed (μs)	Magnetic Field Detection	Temperature Range (°C)	Package	Wettable Flanks	Notes
S	MAQ79010	10-Bit to 14.5-Bit	SPI, SSI, I ² C, UVW, SENT, ABZ	3.3V, 5V	12	8+ (No Upper Limit)	12 to 100k	0	✓	-40 to +150	QFN-16 (3x3)	✓	AEC-Q100, ASIL-B compliant, robust against parasitic stray fields >4kA/m DC, or 5mT
P	MAQ79016	10-Bit to 14.5-Bit	SPI, SSI, I ² C, UVW, SENT, ABZ	Up to 26V	12	8+ (No Upper Limit)	12 to 100k	0	✓	-40 to +150	QFN-16 (3x3)	✓	AEC-Q100, ASIL-B compliant, 26V with reverse polarity protection, robust against parasitic stray fields >4kA/m DC, or 5mT
S	MAQ900	10-Bit to 14.5-Bit	SPI, SSI, I ² C, UVW, SENT, ABZ	3.3V, 5V	12	8+ (No Upper Limit)	12 to 100k	0	✓	-40 to +150	QFN-16 (3x3)	✓	AEC-Q100, robust against parasitic stray fields >4kA/m DC, or 5mT
P	MAQ79020	12-Bit to 14.5-Bit	ABZ, PWM, SPI, I ² C, SSI, UVW	3.3V, 5V	12	8+ (No Upper Limit)	12 to 100k	0	✓	-40 to +150	QFN-32 (5x5)	✓	AEC-Q100, ASIL-D compliant w/ functional safety, robust against parasitic stray fields >4kA/m DC or 5mT, wettable flanks

MagVector™ 3D Magnetic Position Sensors

	Part Number	Data Length	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Conversion Time (μs)	Temperature Range (°C)	Package	Notes
P	MPVQ310	12-Bit	I ² C, SPI	3.3	25nA to 2.5	±125 or ±250	40	-40 to +150	TSOT23-6	AEC-Q100, digital component output, selectable operating power modes and sensing axis

Electrification

Isolated Gate Drivers

	Part Number	Isolation Rating (kV _{RMS})	Configuration Type	# of Channels	CMTI (Min) (kV/μs)	Power Switch Type	Peak Source Current (A)	Peak Sink Current (A)	UVLO (V)	Input V _{DDI} (V)	Driver Output (Max) (V)	Package	Notes
N	MPQ18831-AEC1	2.5/3/5	Dual-Input Half-Bridge	2	100	SiC FET, IGBT, MOSFET, GaN FET	4	8	5/8/10/12	2.8 to 5.5	30	SOIC-16 NB, SOIC-16 WB, LGA-13	AEC-Q100, UL1577 certified, VDE-0884/CQC in progress
N	MPQ18851-AEC1	2.5/3/5	Dual Input, Independent Dual-Channel	2	100	SiC FET, IGBT, MOSFET, GaN FET	4	8	5/8/10/12	2.8 to 5.5	30	SOIC-16 NB, LGA-13, SOIC-16 WB	AEC-Q100, UL1577 certified, VDE-0884/CQC in progress
N	MPQ18871-AEC1	2.5/3/5	PWM Input Half-Bridge	2	100	SiC FET, IGBT, MOSFET, GaN FET	4	8	5/8/10/12	2.8 to 5.5	30	SOIC-16 NB, LGA-13, SOIC-16 WB	AEC-Q100, UL1577 certified, VDE-0884/CQC in progress
N	MPQ18811-AEC1	3/5	Single-Channel Gate Driver	1	100	SiC FET, IGBT, MOSFET, GaN FET	6	10	5/8/10/12/15	2.8 to 5.5	30	SOIC-8 NB, SOIC-8 WB, SOIC-14 NB	AEC-Q100, UL1577 certified, VDE-0884/CQC in progress, fault reporting
P	MPQ18815-AEC1	5	Single-Channel Gate Driver	1	100	SiCFET, IGBT, MOSFET	4	4	12/15/17	2.8 to 5.5	30	SOIC-16 WB	Desat. detection, active Miller clamp, soft shutdown, external buffer, AEC-Q100, UL1577 and VDE-0884 certified

Isolated Power Supplies

	Part Number	Topology	Device Type	Output Power (W)			V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (Typ) (V)	Integrated Transformer	Package Type	Isolation Voltage (kV _{DC})	# of Outputs	Package Size: WxL (mm)	Notes
P	MPQ6007-AEC1	Flyback	Converter	10	4.5	42	12 to 24	-	QFN-11	5+ (Dependent on Transformer Design)	1, More Possible	3x3			Automotive active clamp primary-side regulated flyback, ultra-low EMI
P	MPDQ11510GRDE-171P2-AEC1	Flyback	Converter	15 to 50	20	1200	12 to 24	-	QFN-22	5+ (Dependent on Transformer Design)	1, More Possible	10x10			Automotive flyback converter with integrated 1700V SiC FET, 5mm creepage
P	MPDQ11510GY-171P2-AEC1	Flyback	Converter	15 to 50	20	1200	12 to 24	-	SOIC-28 WB	5+ (Dependent on Transformer Design)	1, More Possible	7.85x 7.5			Automotive flyback converter with integrated 1700V SiC FET, 7.5mm creepage
N	MPQ18913-AEC1	LLC Resonant	Converter	6	5	35	20	-	QFN-10	5+ (Dependent on Transformer Design)	1, More Possible	2x2.5			5MHz high-frequency SiC/IGBT bias supply, automatic resonant frequency detection
N	MID1W2424AGYE-AEC1	LLC Resonant	Isolated Module	1.5	5	35	24	✓	SOIC-16 WB	5	1	10.3x 10.3x 2.5			24V _{IN} , 1.5W, automotive isolated power module for SiC bias supplies
N	MIE1W0505BGY-AEC1	LLC Resonant	Isolated Module	1	2.6	5.5	5/3.3	✓	SOIC-16 WB	3	1	10.3x 10.3x 2.5			5V _{IN} , 1W, automotive isolated power module

Digital Isolators

		Part Number	Total Channel Count		# of Channels (Forward/Reverse)	Isolation Rating (kV _{RMS})	Data Rate	Propagation Delay (Typ) (ns)	Min CMTI (kV/μs)	Surge Voltage Level (V _{PK})		Package	Notes
										V _{IN} (Min) (V)	V _{IN} (Max) (V)		
N		MPQ27911-AEC1	2	1/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-8 WB, SOIC-8 NB	AEC-Q100
N		MPQ27920-AEC1	2	2/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-8 WB, SOIC-8 NB	AEC-Q100
N		MPQ27922-AEC1	4	2/2	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
N		MPQ27931-AEC1	4	3/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
N		MPQ27940-AEC1	4	4/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
N		MPQ27933-AEC1	6	3/3	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
N		MPQ27942-AEC1	6	4/2	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
N		MPQ27951-AEC1	6	5/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
N		MPQ27960-AEC1	6	6/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100

Non-Isolated Gate Drivers (Half-Bridge)

	Part Number	V _{IN} (Min) (V)			V _{IN} (Max) (V)			HS Gate Drive (Max) (V)	# of Channels	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (μs)	Fall Time (μs)	Turn-Off/On Delay (μs)	Wettable Flank Option	Package	Notes
N	MPQ1907-AEC1	4.5	20	105	18	1	2.5	3.5	0.012	0.009	0.018	-	QFN-10 (3x3)	100V H-bridge			
	MPQ1918-AEC1	3.6	5.5	100	8	1	1.6	5	0.005	0.003	0.02	✓	FCQFN-14 (3x3)	100V half-bridge GaN/MOSFET driver			
P	MPQ1919-AEC1	3.7	5.5	100	8	1	2	5	0.005	0.005	0.02	✓	FCQFN-15 (3x3)	Smart HB GaN driver with desat.			
	MPQ1922-AEC1	4	15	100	15	1	3	4	Adj	Adj	0.3	✓	SOIC-8E, QFN-10 (4x4)	Int. current-sense amp, 9ns to 15ns rise/fall (2.2nF load)			
	MPQ1923-AEC1	5	17	100	17	1	7	8	0.0072	0.0055	0.02	✓	QFN-10 (4x4), QFN-8 (4x4), SOIC-8	High-frequency			
N	MPQ18024-AEC1	9	16	110	18	1	4.7	6	0.015	0.009	0.02	-	SOIC-8	-			

AC Buck Converters

Part Number	Typ Max Power (W)	V_{IN} (Min) (V_{AC})	V_{IN} (Max) (V_{AC})	Control Method	$R_{DS(on)}$ (Ω)	Breakdown Voltage (V)	No-Load Power (mW)	Package	Notes
MP100L	0.5	85	305	Smart LDO	9.5	700	100	SOIC-8E	Inductorless regulator for low-power applications
MP103	1	85	305	Smart LDO	-	700	100	SOIC-8E	Inductorless controller for low-power applications
MP150	2	20	265	Non-Isolated	30	500	150	TSOT23-5, SOIC-8	Offline regulator, up to 200mA output current
MP155	3	20	265	Non-Isolated	20	500	100	TSOT23-5, SOIC-8	Offline regulator, up to 220mA output current
MP157	6	20	265	Non-Isolated	10	500	100	TSOT23-5, SOIC-8	Offline regulator, up to 360mA output current
MP158	3	20	265	Non-Isolated	20	500	100	TSOT23-5, SOIC-8	Offline regulator, up to 70mA output current
MP171A	2	20	305	Non-Isolated	20	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP171 (up to 60mA output current)
MP172A	3	20	305	Non-Isolated	16	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP172 (up to 120mA output current)
MP173A	4	20	305	Non-Isolated	14	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP173 (up to 280mA output current)
MP174A	5	20	305	Non-Isolated	13.5	700	30	TSOT23-5, SOIC-8	Improved EMI performance from the MP174 (up to 400mA output current)
MP175	10	30	265	Non-Isolated	4.5	700	30	SOIC-8	Offline regulator, up to 600mA output current
MP175L	7.5	30	265	Non-Isolated	4.5	700	30	SOIC-8	Offline regulator, up to 600mA output current, for lower output applications than the MP175
MP163A	2	20	265	Non-Isolated	16	700	30	SOIC-8-7B, SOIC-16	Offline regulator with integrated LDO, 210mA current-limited switching regulator
MP163B	3	20	265	Non-Isolated	14	700	30	SOIC-8-7B, SOIC-16	Offline regulator with integrated LDO, 420mA current-limited switching regulator
MP163C	4	20	265	Non-Isolated	13.5	700	30	SOIC-8-7B, SOIC-16	Offline regulator with integrated LDO, 660mA current-limited switching regulator
MP161A	2	30	265	Non-Isolated	17	700	10	SOIC-16	Integrated 240mA current-limited switching regulator, linear regulator, and relay driver
MP161B	3	30	265	Non-Isolated	14	700	10	SOIC-16	Integrated 420mA current-limited switching regulator, linear regulator, and relay driver
N MP180	2.5	30	265	Non-Isolated	17.5	700	3	TSOT23-5	Zero-standby buck regulator, up to 180mA output current
MP183	3.5	30	265	Non-Isolated	17.5	700	3	TSOT23-5, SOIC-8	Zero-standby buck regulator, up to 250mA output current
N MP183B	3.5	30	265	Non-Isolated	17.5	700	5	TSOT23-5, SOIC-8	Zero-standby buck regulator, up to 250mA output current

Flyback

Secondary-Side Regulation

	Part Number	Typ Max Power (W)	V_{IN} (Min) (V _{AC})	V_{IN} (Max) (V _{AC})	Type	f_{SW} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(ON)}$ (Ω)	Package	Notes
	HFC0100	Ext FET	85	305	Controller	-	Quasi-Resonant	700	-	SOIC-8	-
	HFC0300	Ext FET	85	305	Controller	-	Variable Frequency	700	-	SOIC-7	Variable off-time
	HFC0310	Ext FET	85	305	Controller	600	Fixed Frequency	-	-	SOIC-8	Programmable fixed-frequency
N	HFC0310A	Ext FET	85	305	Controller	600	Fixed Frequency	-	-	SOIC-8	Metal-spin from HFC0310 to help driver SiC FET
	HFC0500	Ext FET	85	305	Controller	65	Fixed Frequency	700	-	SOIC8-7A	HV start-up, X-capacitor discharge, brown-in/ brownout
	HFC0502	Ext FET	85	305	Controller	65	Fixed Frequency	700	-	SOIC8-7A	Supports DC input, HV start-up, X-capacitor discharge, brown-in/ brownout
S	HFC0503	Ext FET	85	305	Controller	65	Fixed Frequency	700	-	SOIC8-7A	HV start-up, X-capacitor discharge, HV OVP
	HFC0511	Ext FET	85	305	Controller	130	Fixed Frequency	700	-	SOIC8-7A	Ultra-low no-load power consumption
S	HFC0580	Ext FET	85	305	Controller	130	Fixed Frequency	700	-	SOIC-14	Interleaved flyback controller, valley-locked QR function
N	HFC0650	Ext FET	85	305	Controller	300	Variable Frequency	700	-	SOIC8-7A	High f_{SW} QR flyback controller for high-efficiency, high-density adapters, GaN driver
N	HFC0651	Ext FET	85	305	Controller	300	Variable Frequency	700	-	SOIC8-7A	QR flyback controller for high-efficiency, high-density adapters, Si driver
	HF300	Ext FET	85	305	Controller	200	Variable Frequency	200	-	SOT23-6	Ideal clamp controller for high-frequency flybacks
S	HFG300-100	100	85	305	Regulator	200	Variable Frequency	700	-	SOIC-8	Flyback ideal clamp
S	HF830-30	30	85	305	Regulator	150	QR/CCM	800	1	SOIC14-9	Secondary-side regulator with integrated 800V FET, up to 30W
S	HF830-40	40	85	305	Regulator	150	QR/CCM	800	0.7	SOIC14-9	Secondary-side regulator with integrated 800V FET, up to 40W
P	HF830-60	60	85	305	Regulator	150	QR/CCM	800	0.35	SOIC14-9	Secondary-side regulator with integrated 800V FET, up to 60W

	Part Number	Typ Max Power (W)	V_{IN} (Min) (V_{AC})	V_{IN} (Max) (V_{AC})	Type	f_{SW} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(ON)}$ (Ω)	Package	Notes
	HF900	10	85	440	Regulator	300	Peak Current	900	13	PDIP8-7 EP, SOIC14-11	Integrated 900V MOSFET
	HF920	10	85	440	Regulator	150	Peak Current	900	15	SOIC14-11, SOIC8-7A	Integrated 900V MOSFET
	HF920A	10	85	440	Regulator	150	Peak Current	900	15	SOIC14-11, SOIC8-7A	HF920 with AC UV protection
P	HF930A	7 to 8	85	440	Regulator	150	Variable Frequency	900	11	SOIC8-7, SOIC14-9	Primary-side regulator with ultra-low standby
P	HF930B	12	85	440	Regulator	150	Variable Frequency	900	6	SOIC14-9	Primary-side regulator with ultra-low standby
P	HF931A	7 to 8	85	440	Regulator	150	Variable Frequency	900	11	SOIC8-7, SOIC14-9	Secondary-side regulator with low standby
P	HF931B	12	85	440	Regulator	150	Variable Frequency	900	6	SOIC14-9	Secondary-side regulator with low standby
S	HF1070	40	200V _{DC}	1100V _{DC}	Regulator	48 @ -1A/1B, 65 @ -2A/2B	QR/CCM	1700	1.2	SOIC14-9L	Secondary-side regulator with integrated 1700V SiC
S	HF1071	20	200V _{DC}	1100V _{DC}	Regulator	48 @ -1A/1B, 65 @ -2A/2B	QR/CCM	1700	2.5	SOIC14-9L	Secondary-side regulator with integrated 1700V SiC
S	HF1071A	20 (Planar Transformer)	200V _{DC}	1100V _{DC}	Regulator	167	QR/CCM	1700	2.5	SOIC14-9L	Secondary-side regulator with integrated 1700V SiC
S	HF1072	15	200V _{DC}	1100V _{DC}	Regulator	65	QR/CCM	1700	5	SOIC14-9L	Secondary-side regulator with integrated 1700V SiC
	HF500-7	7	85	305	Regulator	65	Fixed Frequency	700	12	SOIC8-7B	Integrated 700V MOSFET
	HF500-15	15	85	305	Regulator	65	Fixed Frequency	700	4.5	SOIC8-7B	Integrated 700V MOSFET
	HF500-30	30	85	305	Regulator	65	Fixed Frequency	700	1.4	PDIP8-7B	Integrated 700V MOSFET
	HF500A-20	20	85	305	Regulator	65	Fixed Frequency	700	3	PDIP8-7B	Integrated 700V MOSFET, covers 12W to 20W home appliance applications
	HF500A-30	30	85	305	Regulator	65	Fixed Frequency	700	1.4	PDIP8-7B	Improved EMI performance from the HF500-30
P	HF600-40	40	85	305	Regulator	65	Variable Frequency	700	0.9	PDIP8-7B	Integrated 700V MOSFET, flyback regulator with CCM/QR mode

	Part Number	Typ Max Power (W)	V_{in} (Min) (V_{AC})	V_{in} (Max) (V_{AC})	Type	f_{SW} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(on)}$ (Ω)	Package	Notes
N	HFG610-35	35	85	305	Regulator	300	Variable Frequency	700	0.36	QFN-21 (5x6)	Integrated 700V GaN HEMT
N	HFG610-45	45	85	305	Regulator	300	Variable Frequency	700	0.27	QFN-21 (5x6), QFN-25 (7x7)	Integrated 700V GaN HEMT
N	HFG610-65	65	85	305	Regulator	300	Variable Frequency	700	0.16	QFN-25 (7x7)	Integrated 700V GaN HEMT
N	HFG610A-35	35	85	305	Regulator	300	Variable Frequency	700	0.36	QFN (5x6)	Integrated 700V GaN HEMT, line compensation and external OTP
N	HFG610A-45	45	85	305	Regulator	300	Variable Frequency	700	0.27	QFN (7x7)	Integrated 700V GaN HEMT, line compensation and external OTP
N	HFG610A-65	65	85	305	Regulator	300	Variable Frequency	700	0.16	QFN (7x7)	Integrated 700V GaN HEMT, line compensation and external OTP
S	HFG612-2	80	85	305	Regulator	300	Variable Frequency	700	0.13	QFN-27 (7x7)	Integrated 700V GaN HEMT, CS senseless, line compensation, external OTP
S	HFG612-3	65	85	305	Regulator	300	Variable Frequency	700	0.205	QFN-27 (7x7), QFN-28 (5x6), SOIC14-9	Integrated 700V GaN HEMT, CS senseless, line compensation, external OTP
S	HFG612-4	45	85	305	Regulator	300	Variable Frequency	700	0.28	QFN-28 (5x6), SOIC14-9	Integrated 700V GaN HEMT, CS senseless, line compensation, external OTP
P	HFG612-12	15	85	305	Regulator	300	Variable Frequency	700	0.86	SOIC8-7	Integrated 700V GaN HEMT, line compensation
P	HFG910-40	40	85	440	Regulator	200	Quasi-Resonant	900	0.4	SOIC14-9	Integrated 900V GaN
P	HFG910-60	60	85	440	Regulator	200	Quasi-Resonant	900	0.265	SOIC14-9	Integrated 900V GaN

Primary-Side Regulation

Part Number	Typ Max Power (W)	V_{in} (Min) (V _{AC})	V_{in} (Max) (V _{AC})	Type	f_{sw} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(on)}$ (Ω)	Package	Notes
MP020A-5	7	85	305	Regulator	75	Variable Frequency	700	10	SOIC8-7A	CV/CC control
MP023	Ext FET	85	305	Controller	100	Variable Frequency	700	-	SOIC8-7A	CV/CC control
MP024-10	10	85	305	Regulator	100	Variable Frequency	700	4.5	SOIC8-7B	CV/CC control

All-In-One Flybacks with Primary and Secondary Controller

Part Number	Typ Max Power (W)	V_{in} (Min) (V _{AC})	V_{in} (Max) (V _{AC})	Type	f_{sw} (Max) (kHz)	Control Scheme	Breakdown Voltage (V)	$R_{DS(on)}$ (Ω)	Package	Notes
MPX2001	Ext FET	85	305	Controller	85	Variable/CCM	650	-	SOICW-20	200V integrated SR controller with capacitive isolation
MPX2002	Ext FET	85	305	Controller	85	CCM/QR	650	-	SOICW-16	150V integrated SR controller with capacitive isolation
MPX2003	Ext FET	85	305	Controller	140	CCM/QR	650	-	SOICW-16	Higher-frequency version of the MPX2002
N MPX2005	Ext FET	9V _{DC}	600V _{DC}	Controller	250	CCM/QR	650	-	SOICW-16	All-in-one solution, supports low DC input applications
N MPX2100	Ext FET	85	305	Controller	300	CCM/ZVS/QR	650	-	TSOICW-16	All-in-one SR ZVS flyback controller with capacitive isolation
N MPXP0900	40	85	305	Regulator	65	CCM/QR	650	0.9	SOIC20-13 WB	Integrated 700V MOSFET based on the MPX2002 for up to 45W applications
P MPXP0600	50	85	305	Regulator	65	CCM/QR	650	0.6	SOIC20-13 WB	Integrated 700V MOSFET based on the MPX2002 for up to 50W applications
P MPXP0200	65	65	305	Regulator	65	CCM/QR	650	0.35	SOIC20-13 WB	Integrated 700V MOSFET based on the MPX2002 for up to 65W applications
N MPXG2100-1B	100	85	305	Regulator	300	CCM/ZVS	700	0.138	SOICW24-18L, TSOICW24-18L	Integrated 700V GaN HEMT, AIO SR ZVS flyback regulator
N MPXG2100-2B	80	85	305	Regulator	300	CCM/ZVS	700	0.165	SOICW24-18L, TSOICW24-18L	Integrated 700V GaN HEMT, AIO SR ZVS flyback regulator
N MPXG2100-2A	70	85	305	Regulator	300	CCM/ZVS	700/100	0.165/0.006	SOICW24-18L, TSOICW24-18L	Integrated 700V GaN HEMT and 100V SR FET, AIO SR ZVS flyback regulator
N MPXG2100-3B	65	85	305	Regulator	300	CCM/ZVS	700	0.27	SOICW24-18L, TSOICW24-18L	Integrated 700V GaN HEMT, AIO SR ZVS flyback regulator
N MPXG2100-3A	55	85	305	Regulator	300	CCM/ZVS	700/100	0.27/0.009	SOICW24-18L, TSOICW24-18L	Integrated 700V GaN HEMT and 100V SR FET, AIO SR ZVS flyback regulator
N MPXG2100-4A	45	85	305	Regulator	300	CCM/ZVS	700/100	0.365/0.012	SOICW24-18L, TSOICW24-18L	Integrated 700V GaN HEMT and 100V SR FET, AIO SR ZVS flyback regulator

LLC 600V Half-Bridge Drivers

	Part Number	V_{IN} (Min) (V _{AC})	V_{IN} (Max) (V _{AC})	Control Scheme	Power (W)	Topology	Capacitive Mode Protection	Adaptive Dead Time Control	Package	Notes
	HR1000A	85	305	Voltage Mode	Ext FET	LLC Resonant	-	-	SOIC-16	Variable frequency, high-power applications
	HR1001A	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Two-level OCP via frequency shift and auto-restart, other features same as the HR1001B
	HR1001B	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Variable frequency, two-level OCP (1st level auto-restart, 2nd level latch)
	HR1001C	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Improved surge performance compared to the HR1001B
	HR1001L	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Two-level OCP via frequency shift and latch, other features same as the HR1001B
	HR1002	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Higher switching frequency applications than the HR1001C (up to 400kHz to 500kHz)
	HR1002A	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC16-15	Alternate package option of the HR1002 without the N/C pin
S	HR1008	85	528	Current Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	High-voltage start-up current source and X-capacitor discharge

PFC + LLC Combo Controllers

	Part Number	LLC Control Scheme	PFC Control Scheme	No-Load Power Consumption (mW)	Programming Ability	Topology	High-Voltage Start-Up	Package	Notes
	HR1203	Voltage Mode	Digital CCM/DCM Multi-Mode	<150	I ² C/GUI	PFC + LLC	✓	TSSOP-28, SOIC-28	Digital PFC + analog LLC with GUI, replaces the HR1200
	HR1204	Voltage Mode	Digital CCM/DCM Multi-Mode	<150	I ² C/GUI	PFC + LLC	-	TSSOP-28, SOIC-28	Digital PFC + analog LLC with GUI, replaces the HR1201
	HR1210	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	High performance, fully digital
	HR1211	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	High performance, fully digital
S	HR1211F	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	High performance, fully digital
	HR1213	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	AC and DC input, with or without aux, selectable via the GUI
	HR1215	Digital Current Mode	Digital CCM/DCM Multi-Mode	<100	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	Keeps the output regulated when AC turns off
N	HR1230	Digital Current Mode	Digital CCM/CrM/DCM Multi-Mode	<70	UART/GUI	PFC + LLC	✓	SOIC-16	Excellent peak power performance, light-load efficiency
N	HR1231	Digital Current Mode	Digital CCM/CrM/DCM Multi-Mode	<60	UART/GUI	PFC + LLC	✓	SOIC-16	Excellent peak power performance, light-load efficiency, includes VCC OVP

	Part Number	LLC Control Scheme	PFC Control Scheme	No-Load Power Consumption (mW)	Programming Ability	Topology	High-Voltage Start-Up	Package	Notes
N	HR1275	Digital Current Mode	Digital CrM/DCM Multi-Mode	<85	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20, SOIC-16	Digital combo controller with CrM/DCM PFC
N	HR1275L	Digital Current Mode LLC	Digital CrM/DCM Multi-Mode	<85	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20, SOIC-16	Digital combo controller with CrM/DCM PFC, improved THD for LED lighting applications
S	HR1275M	Digital Current Mode LLC	Digital CrM/DCM Multi-Mode	<75	UART/GUI	PFC + LLC	✓	SOIC-20	Digital combo controller with CrM/DCM PFC, improved THD for LED lighting applications
N	HR1280	Digital Current Mode	Digital CCM/DCM Multi-Mode	<85	UART/GUI	PFC + LLC	✓	TSSOP-20, SOIC-20	Full digital PFC + LLC controller with digital PG indicator
N	HR1120	Digital Current Mode AHB Flyback	Digital CCM/DCM Multi-Mode	<75	UART/GUI	PFC + AHB Flyback	✓	TSSOP-20	Digital combo controller for wide V_{OUT} range applications

PFC

	Part Number	V_{IN} (Min) (V _{AC})	V_{IN} (Max) (V _{AC})	I_{O_MAX} / I_{CC_MAX} (mA)	I_{GATE_SRC} / I_{GATE_SINK} (mA)	Control Method	Topology	Package	Notes
	MP44010	85	305	0.65/2.5	-350/+600	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode, general purpose
	MP44011	85	305	0.65/2.5	-350/+600	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode, reduced capacitance and inductor requirements compared to the MP44010
	MP44014	85	305	3.2/4.5	-750/+800	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode
	MP44014A	85	305	3.2/4.5	-750/+800	Boundary Mode	Boost/Buck-Boost	SOIC-8	Boundary mode, adjacent open-loop protection
N	MP44017	85	305	0.2/1.5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	Based on the MP44018, optimized burst thresholds for lighting applications with deep dimming requirements
	MP44018A	85	305	0.2/1.5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	Enhanced light-load efficiency
	MP44019	85	305	0.2/1.5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	Based on the MP44018, implements second OVP function for TV applications
N	MP44020	85	305	0.18/2.1	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	Enhanced PF and THD

	Part Number	V_{IN}	V_{IN} (Min) (V _{AC})	V_{IN} (Max) (V _{AC})	I_{O_MAX} / I_{CC_MAX} (mA)	$I_{GATE_SRC} / I_{GATE_SINK}$ (mA)	Control Method	Topology	Package	Notes
N	MP44060	85	305	0.25/5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	High frequency, based on the MP44018-A	
S	MP44100	85	305	0.18/1.5	-	CrM/DCM Multi-Mode	Boost	SOIC-8	High frequency, GaN driving compatible	
S	MP45000	85	305	0.9/10	-770/+910	CrM/DCM Multi-Mode	Totem-Pole Boost	TSSOP-28	Best efficiency, fully integrated	
	MP4078	85	305	0.4/5	35V/0.27Ω Source-Driven	DCM	Flyback/Buck-Boost/Buck	SOIC-8	Primary-side control for constant voltage power	
S	MPG44100-1A	85	305	0.18/1.5	-	CrM/DCM Multi-Mode	Boost	QFN-27 (7x7), SOIC14-9	Integrated GaN, low standby power loss, CS senseless	
S	MPG44100-1B	85	305	0.18/1.5	-	CrM/DCM Multi-Mode	Boost	QFN-27 (7x7), SOIC14-9	Integrated GaN, low standby power loss, CS senseless	
S	MPG44100-2A	85	305	0.18/1.5	-	CrM/DCM Multi-Mode	Boost	QFN-27 (7x7), SOIC14-9	Integrated GaN, low standby power loss, CS senseless	
S	MPG44100-2B	85	305	0.18/1.5	-	CrM/DCM Multi-Mode	Boost	QFN-27 (7x7), SOIC14-9	Integrated GaN, low standby power loss, CS senseless	
S	MPG44100-3A	85	305	0.18/1.5	-	CrM/DCM Multi-Mode	Boost	QFN-27 (7x7), SOIC14-9	Integrated GaN, low standby power loss, CS senseless	
S	MPG44100-3B	85	305	0.18/1.5	-	CrM/DCM Multi-Mode	Boost	QFN-27 (7x7), SOIC14-9	Integrated GaN, low standby power loss, CS senseless	

Synchronous Rectifiers

Flyback Topology (Fast Turn-Off, Intelligent)

	Part Number	Type	V_{DO} (Min) (V)	V_{DO} (Max) (V)	f_{SW} (Max) (kHz)	Drain Rating (V)	Regulation Voltage (mV)	Typical $R_{DS(ON)}$ (m Ω)	Package	Notes
	MP6902	Controller	8	24	400	180	70	Ext FET	SOIC-8	Light-load management
	MP6906	Controller	4.2	35	400	180	30	Ext FET	SOIC-8, TSOT23-6	VCC down to 4.5V, light-load management, turn-off blanking and SYNC feature
	MP6907	Controller	4.2	35	400	180	70	Ext FET	SOIC-8, TSOT23-6	VCC down to 4.5V, light-load management, turn-off blanking and SYNC feature, better efficiency than the MP6902
	MP6908	Controller	4	13	400	180	40	Ext FET	TSOT23-6	Fast turn-off intelligent rectifier, slew rate detection, self-biased (no need for auxiliary winding)
	MP6908A	Controller	4	13	600	180	40	Ext FET	TSOT23-6	High-frequency, fast turn-off intelligent rectifier, slew rate detection, self-biased (no need for auxiliary winding)
	MP6908L	Controller	4.5	13	150	180	40	Ext FET	TSOT23-6	Optimized for 65kHz
N	MP6908S	Controller	4.5	13	400	180	40	Ext FET	TSOT23-6	Zero MOT
	MP6909	Controller	4	13	400	180	40	Ext FET	TSOT23-6	Fast turn-off intelligent rectifier, slew rate detection
	MP6951	Controller	4	13	1000	180	40	Ext FET	TSOT23-6	Fast turn-off, intelligent V_{DS} ringing detection
N	MP6951A	Controller	4	13	1000	180	30	Ext FET	TSOT23-6	Fast turn-off, intelligent V_{DS} ringing detection
	MP6960	Controller	8	24	400	180	70	Ext FET	SOIC-8	Integrated CC/CV controller
N	MP6980	Controller	4	13	150	180	40	Ext FET	TSOT23-6	Thermally improved version based on the MP6908A
	MP6982	Controller	4.5	13	600	180	40	Ext FET	TSOT23-6	SR driver voltage optimized for GaN FET, based on the MP6908A
	MP6910A	Ideal diode	8	24	250	100	70	15	SOIC-8	MP6902-based ideal diode
	MP6910B	Ideal diode	8	24	250	100	70	13	SOIC-8	MP6902-based ideal diode
	MP6919	Ideal diode	4.5	13	150	100	40	13	SOIC-8	MP6908-based ideal diode
	MP9989	Ideal diode	4.5	13	150	100	40	10	SOIC-8, QFN-8 (4x5)	MP6908-based ideal diode
	MP9989A	Ideal diode	4	13	300	100	40	10	SOIC-8, QFN-8 (4x5)	High-frequency, 20V, 3.5A to 4A, MP6908A-based ideal diode
	MP6953	Ideal diode	8	24	250	100	70	17	SOIC-8	12V, 2.5A
N	MP6954	Ideal diode	8	24	250	100	70	14	SOIC-8	12V, 3A
N	MP6971	Ideal diode	4.5	13	150	100	40	20	SOIC-8	12V, 2A, MP6908-based ideal diode
	MP6972	Ideal diode	4.5	13	150	100	40	17	SOIC-8	12V, 2.5A, MP6908-based ideal diode
	MP6973	Ideal diode	4.5	13	150	100	40	14	SOIC-8	12V, 3A, MP6908-based ideal diode
N	MP6975	Ideal diode	4.5	13	150	100	40	12	SOIC-8	12V, 3.5A, MP6908-based ideal diode
	MP6976	Ideal diode	4.5	13	150	100	40	10.5	SOIC-8	20V, 3.5A, MP6908-based ideal diode
S	MP9986	Ideal diode	4.5	13	150	100	40	8	QFN-8 (4x5)	20V, 4.5A, MP6908-based ideal diode

LLC Topology (Fast Turn-Off, Intelligent)

	Part Number	Type	f_{SW} (Max) (kHz)	Drain Rating (V)	Regulation Voltage (mV)	Typical $R_{DS(ON)}$ (mΩ)	Single/Dual	Package	Notes
	MP6903	Controller	300	180	70	Ext FET	Single	SOIC-8E	High noise immunity, light-load management
	MP6922	Controller	300	180	70	Ext FET	Dual	SOIC-8E, SOIC-14	V_{FWD} 70mV for LLC
	MP6922A	Controller	300	180	30	Ext FET	Dual	SOIC-8E, SOIC-14	High-efficiency, V_{FWD} 30mV for LLC, light-load management
N	MP6922L	Controller	300	180	70	Ext FET	Dual	SOIC-8	V_{FWD} 70mV for LLC, shorten LL mode entry t_{ON} threshold, disable light-load entry when no gate pulse compared to the MP6922
	MP6923	Controller	300	180	15	Ext FET	Dual	SOIC-14	High-power optimized
	MP6925	Controller	500	180	45	Ext FET	Dual	SOIC-8	Enhanced light-load performance, compatible with the MP6924A
	MP6925A	Controller	500	180	45	Ext FET	Dual	SOIC-8	Enhanced light-load performance, compatible with the MP6924
N	MP6926	Controller	600	180	29	Ext FET	Dual	SOIC-8	High-frequency LLC SR based on the MP6925
P	MP6929	Controller	750	140	15/30	Ext FET	Dual	SOIC-8	High-frequency enhanced driver ability and efficiency for high-frequency LLC SR controllers
S	MP6933	Ideal diode	500	40	45	3.5	Dual	SOIC-16E	Dual-channel
P	MP6941	Ideal diode	500	60	45	9	Single	QFN-12 (5x6)	Single-channel
N	MP6943	Ideal diode	500	60	45	5.5	Single	QFN-12 (5x6)	Single-channel
P	MP6947	Ideal diode	500	60	45	7.5	Single	QFN-12 (5x6)	Single-channel

700V Half-Bridge Gate Drivers

	Part Number	Type	$V_{DD} I_{G, MAX} / I_{CC, MAX}$ (mA)	$V_{DD, MAX}$ (V)	$I_{GATE, SRC} / I_{GATE, SINK}$ (mA)	Package	Notes
S	MP18721	Half-Bridge Driver	0.9/2.5	20	-500/-4000/+500/+4000	SOIC-8	CMTI >100kV/μs
P	MP18722	Half-Bridge Driver (for GaN HEMT)	0.6/10	18	-4000/+2000	QFN-34 (5x7)	CMTI >200kV/μs
P	MPG137L0-45A	Half-Bridge Module	0.9/2.5	20	+400/-1500	QFN-32 (8x9)	365mΩ @ 25°C, typical
P	MPG137L0-22A	Half-Bridge Module	0.9/2.5	20	+400/-1500	QFN-32 (8x9)	165mΩ @ 25°C, typical
P	MPG137L0-15A	Half-Bridge Module	0.9/2.5	20	+400/-1500	QFN-32 (8x9)	138mΩ @ 25°C, typical

AC/DC Isolated

Controllers

Part Number	V_{IN} (Min) (V_{AC})	V_{IN} (Max) (V_{AC})	Power (W)	Topology	Package	Notes
MP4026	85	305	Ext FET	Flyback	SOT23-6	Primary-side control, active PFC
MP4027	85	305	Ext FET	Flyback	SOT23-8	Primary-side control, PFC, NTC, and PWM dimming
MP4031	85	305	Ext FET	Flyback	SOIC-8	TRIAC and analog dimming, deep dimming, primary-side control, active PFC
MP4033	85	305	Ext FET	Flyback	SOIC-8, MSOP-10, SOIC-14	Enhanced TRIAC dimming, primary-side control, active PFC
MP4057A	85	305	Ext FET	Buck-Boost	MSOP-10, SOIC-14	Single-chip/single-stage solution for smart LED/wireless modules
MP4059	85	305	Ext FET	Buck-Boost	SOIC-8	3% analog dimming
MP4060	85	305	Ext FET	Buck-Boost	SOIC-8, MSOP-10, SOIC-14	Improved trailing-edge dimmer performance at high line over the MP4056
MP4078	85	305	Ext FET	Flyback/Buck-Boost/Buck	SOIC-8	Primary-side control and PFC controller for constant voltage power
HR1001A	85	305	Ext FET	LLC Resonant	SOIC-16	Resonant half-bridge, variable frequency, high-power application, auto-restart at over-current for street lighting applications
HR1001B	85	305	Ext FET	LLC Resonant	SOIC-16	Resonant half-bridge, variable frequency, high-power application, two-level OCP
HR1001C	85	305	Ext FET	LLC Resonant	SOIC-16	Enhanced LLC controller with adaptive dead-time control, OCP, auto-restart, latch, enhanced surge
HR1001L	85	305	Ext FET	LLC Resonant	SOIC-16	Enhanced LLC controller with adaptive dead-time control, OCP, latch-off
MP44010	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8, DIP-8	Offline PFC, boundary conduction, ultra-low start-up current (15 μ A)
MP44011	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	Offline PFC, boundary conduction, harmonic injection function (reduced capacitance and inductance compared to the MP44010)
MP44014	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	Offline PFC, boundary conduction
MP44014A	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	Boundary-mode PFC controller with adjusted open-loop protection
MP44018A	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	CrM/DCM multi-mode boost PFC controller with enhanced light-load efficiency

Regulators

	Part Number	V_{IN} (Min) (V_{AC})	V_{IN} (Max) (V_{AC})	Power (W)	Topology	Package	Notes
	MP4032-1	85	132	7	Flyback	SOIC8-7A	Integrated 500V FET, TRIAC dimming, deep dimming, primary-side control, active PFC
	MP4034	85	305	7	Flyback	SOIC-8, MSOP-10, SOIC-14	Integrated 700V FET, primary-side control, no dimming or PFC
S	MPG44050-2A	85	305	50	Flyback	QFN-27 (7x7), QFN-28 (6x6)	PSR single-stage PFC flyback, 700V integrated GaN, TRIAC dimming
S	MPG44050-4A	85	305	30	Flyback	QFN-27 (7x7), QFN-28 (6x6)	PSR single-stage PFC flyback, 700V integrated GaN, TRIAC dimming
S	MPG44050-2B	85	305	50	Flyback	QFN-27 (7x7), QFN-28 (6x6)	PSR single-stage PFC flyback, 700V integrated GaN, w/o TRIAC dimming
S	MPG44050-4B	85	305	30	Flyback	QFN-27 (7x7), QFN-28 (6x6)	PSR single-stage PFC flyback, 700V integrated GaN, w/o TRIAC dimming
S	MPG44051-2A	85	305	50	Flyback	QFN-27 (7x7), QFN-28 (6x6)	SSR single-stage PFC flyback, 700V integrated GaN, TRIAC dimming
S	MPG44051-4A	85	305	30	Flyback	QFN-27 (7x7), QFN-28 (6x6)	SSR single-stage PFC flyback, 700V integrated GaN, TRIAC dimming

AC/DC Non-Isolated

Offline LED Controllers

	Part Number	V_{IN} (Min) (V_{AC})	V_{IN} (Max) (V_{AC})	Power (W)	Configuration	Package	Notes
	MP4001	85	305	Ext FET	Low-Side Buck	SOIC-8	Integrated high-voltage LDO, analog and PWM dimming
	MP4054	85	305	Ext FET	Buck-Boost	SOT23-8	Active PFC
	MP4054A	85	305	Ext FET	Buck-Boost	SOT23-8	Active PFC, NTC, PWM dimming
	MP4056	85	305	Ext FET	Buck-Boost	SOIC-8, MSOP-10, SOIC-14	TRIAC dimming, active PFC

Regulators

	Part Number	V_{IN} (Min) (V_{AC})	V_{IN} (Max) (V_{AC})	Power (W)	Configuration	Package	Notes
	MP4050A	85	265	8	Buck	SOIC-8, SOT23-5	Integrated 500V FET, offline driver, enhanced thermal, no PFC or dimming
	MP4068	85	305 (Recommend Low-Line Only)	10	Buck/Buck-Boost	SOIC8-7A, SOIC-8EP	Integrated 500V FET, PFC driver with TRIAC dimming
	MP4088	85 (Recommend High-Line Only)	305	8.5	Buck/Buck-Boost	SOIC8-7A, SOIC-8EP, TSOT23-5	Integrated 500V FET, PFC driver with TRIAC dimming

DC/DC Lighting

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Configuration	I_{OUT} (A)	Max Efficiency (%)	Typ Frequency	Package	Notes
MP3412	0.8	4.4	Boost	1.1	96	1MHz	TSOT23-6	Synchronous boost, no dimming
MP2480	5	36	Buck	3	95	2MHz	SOIC-8E	Hysteresis control, PWM dimming
MP2481	4.5	36	Buck/ Buck-Boost	1.2	95	1.4MHz	MSOP-8E	Analog and PWM dimming
MP24892	6	45	Low-Side Buck	1	95	600kHz	TSOT23-5	Hysteresis control, analog and PWM dimming, lower-cost version of the MP2489
MP2483	4.5	55	Buck/ Buck-Boost	2.5	95	1.35MHz	QFN-10 (3x3), SOIC-14	Analog and PWM dimming, consumer grade
MP2488	4.5	55	Buck	2	97.5	200kHz	QFN-10 (3x3), SOIC-8E	PWM dimming
MP2487	4.5	55	Buck	1	97.5	200kHz	SOIC-8E	PWM dimming
MP24833A	4.5	55	Buck/ Boost/ Buck-Boost	3	90	210kHz	SOIC-8E	Analog and PWM dimming
S MP24880	7	55	Buck	2	97.5	1MHz	TSSOP-28EP	PWM dimming
MP24881	5.2	60	Buck	2	95	2MHz	SOIC-8EP	Analog and PWM dimming
MP24895	6	36	Low-Side Buck	1	95	600kHz	QFN-6 (3x3), TSOT23-5	Hysteresis control, analog and PWM dimming
MP24895A	6	36	Low-Side Buck	-	-	-	MSOP-8EP	The MP24895 in an MSOP-8EP package, analog and PWM dimming
MP4688	4.5	80	Buck	1	95	2MHz	SOIC-8, SOIC-8E	Hysteresis control, PWM dimming
MP4689A	4.5	100	Buck	1	95	1MHz	SOIC-8EP	Hysteresis current-mode control, dedicated PWM dimming control input
MP2410	4.2	24	Buck	2	97	1MHz	TSOT23-6, TSOT23-8	Synchronous buck, analog dimming only
MP2410A	4.2	24	Buck	2	97	1MHz	TSOT23-6, TSOT23-8	Synchronous buck, analog and PWM dimming
MP2489	6	60	Low-Side Buck	1	95	600kHz	QFN-6 (3x3), TSOT23-5, SOIC-8E	Hysteresis control

Controllers

Part Number	V_{in} (Min) (V)	V_{in} (Max) (V)	Power (W)	Configuration	Max Efficiency (%)	Package	Notes
MP24894	6	60	Ext FET	Low-Side Buck	95	TSOT-6	Buck controller, hysteresis control

Protection

Regulators

Part Number	Control Method	Package	Notes
MP4690	Shunt	SOD-123	Smart bypass for LED protection, 6V voltage threshold protects 1 LED

Single-Cell Switching Chargers

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (V)	Battery Charge (Max) (A)	OTG Current (Max) (A)	f_{SW} (kHz)	Control Interface	NVDC Power Path	Battery Type	Package	Notes
MP2610	5	24	26	2	4.2/ 8.4	-	1100	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (4x4)	NTC battery temp monitor
MP2611	3.95	6	7.5	2	4.2	-	1500	Standalone	-	Li-Ion, Li-Polymer	QFN-14 (3x4)	Dual-input, NTC battery temp monitor
MP2615	3.95	18	23	2	4.1/ 8.4	-	600	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor
MP2615A	3.95	18	23	2	4.2/ 8.7	-	600	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor
MP2615B	3.95	18	23	2	3.99/ 4.03	-	760	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor
MP2615C	3.95	18	23	2.1	4.1 to 8.4	-	760	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	NTC battery temp monitor, 25m Ω R_{SNS}
MP2615D	3.95	18	23	2.1	4.05/ 4.13	-	1000	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, 47m Ω R_{SNS}
MP2625B	4	10	20	2	4.2	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP26101	5	24	26	2	4.1/ 8.2	-	1100	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (4x4)	NTC battery temp monitor
MP2623	3.5	24	26	2	3.6/ 7.2	-	1100	Standalone	-	LiFePO4	QFN-16 (4x4)	NTC battery temp monitor
MP2626	4.2	6.5	20	2	4.2/ 4.35	1	1200/ 600	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	NTC battery temp monitor
MP2617A	4	10	20	3	4.35	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP2617B	4	10	20	3	4.2	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP2617H	4	14	20	3	4.2	-	1600	Standalone	✓	Li-Ion, Li-Polymer	QFN-20 (3x4)	NTC battery temp monitor
MP2635A	4.2	6.5	20	2	4.2/ 3.6	1.5	1200/ 600	Standalone	-	Li-Ion, Li-Polymer, LiFePO4	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2633A	4.2	6.5	20	1.5	4.2/ 3.6	1	1200/ 600	Standalone	-	Li-Ion, Li-Polymer, LiFePO4	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2690	3.6	5.8	14	2.5	4.2/ 4.35/ 4.45	2.1	600	Standalone	-	Li-Ion, Li-Polymer	QFN-26 (4x4)	Power-path management, BC1.2 detection, LED fuel gauge, NTC battery temp monitor, all-in-one autonomous mode
MP2635B	4.2	6.5	20	2	4.2/ 4.35	1.5	1200/ 600	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2637	4.5	6	20	2.5	4.2/ 4.35	2.4	600	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	Power-path management, NTC batt. temp monitor, adj. boost V_{OUT}
MP2637A	4.5	6	20	2.5	4.05/ 4.2	2.4	620	Standalone	-	Li-Ion, Li-Polymer	QFN-24 (4x4)	Power-path management, NTC batt temp monitor, adj. boost V_{OUT}
MP2632B	3.6	5.8	20	3	4.2/ 4.35/ 4.45	3	600	Standalone	-	Li-Ion, Li-Polymer	QFN-26 (4x4)	Power-path management, BC1.2 detection, LED fuel gauge, NTC batt. temp monitor, all-in-one autonomous mode
MP2636	4.5	6.5	16	3	4.2/ 4.3/ 4.35	3	600	Standalone	-	Li-Ion, Li-Polymer	QFN-30 (4x4)	Power-path management, NTC battery temp monitor, adj. boost V_{OUT} , batt. current monitor
MP2696A	4	11	16	3.6	3.6 to 4.45	3.6	700/ 1200	I ² C	-	Li-Ion, Li-Polymer	QFN-21 (3x3)	JEITA batt. NTC monitor, power-path management, OTP prog. charging parameters, batt. current monitor, prog. boost V_{OUT}

	Part Number	Operating V_{IN} (Min) (V)		Operating V_{IN} (Max) (V)		Absolute V_{IN} (Max) (V)		Charge Current (Max) (V)		Battery Charge Voltage (V)		OTG Current (Max) (A)		f_{SW} (kHz)		Control Interface	NVDC	Power Path	Battery Type	Package	Notes
	MP2696B	4	11	16	3.6	3.6 to 4.45	3.6	700/1200	I ² C	-	Li-Ion, Li-Polymer	QFN-21 (3x3)	3.5A max input current, JEITA batt. NTC monitor, power-path management, OTP prog. charging parameters, batt. current monitor, prog. boost V_{OUT}								
	MP2695	4	11	16	3.6	3.6 to 4.45	-	600	I ² C	-	Li-Ion, Li-Polymer	QFN-21 (3x3)	JEITA batt. NTC monitor, OTP prog. charging parameters, batt. current monitor								
	MP2624	3.6	7	20	4.5	3.48 to 4.425	1.3	1700	I ² C	✓	Li-Ion, Li-Polymer	QFN-22 (3x4)	JEITA batt. NTC monitor, BC1.2 detection, shipping mode, OTG, OCP hiccup function								
	MP2624A	3.6	7	20	4.5	3.48 to 4.425	1.3	1700	I ² C	✓	Li-Ion, Li-Polymer	QFN-22 (3x4)	JEITA batt. NTC monitor, BC1.2 detection, shipping mode, OTG, OCP latch-off function								
	MP2639B	3.6	16	20	5	4.35	3	1300	Standalone	-	Li-Ion, Li-Polymer	QFN-26 (4x4)	JEITA batt. NTC monitor, LED fuel gauge, batt. current monitor								
	MP2731	3.7	16	22	4.5	3.4 to 4.67	3	1000/1350	I ² C/ Standalone	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., integrated ADC, JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG								
	MP2723	3.7	5.5	22	3	3.4 to 4.67	1.5	1000/1350	I ² C/ Standalone	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., integrated ADC, JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG								
	MP2733	3.7	16	22	4.5	3.4 to 4.67	3	1000/1350	I ² C/ Standalone	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., integrated ADC (always available), JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG								
	MP2723A	3.7	5.5	22	3	3.4 to 4.67	1.5	1000/1350	I ² C/ Standalone	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., integrated ADC (always available), JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG								
N	MP2733A	3.7	16	22	4.5	3.4 to 4.67	3	1000/1350	I ² C/ Standalone	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-26 (3.5x3.5)	Input current reg., V_{IN} reg., integrated ADC (always available), JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG, RBFET controllable in OTG mode								
	MP2759	3.9	36	45	3	3.6 to 26.4	-	450/700	Standalone	-	Li-Ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	JEITA batt. NTC monitor, input bypass power path, V_{IN} reg., input current reg., OTP memory, input status/charging indication								
	MP2759A	3.9	36	45	3	3.6 to 26.4	-	450/700	Standalone	-	Li-Ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	Batt. NTC monitor, input bypass power path, V_{IN} reg., input current regulation, OTP memory, input status/charging indication								
	MP2720	3.9	6.3	26	2.5	3.6 to 4.6	3	750 to 1500	I ² C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	Input current reg., V_{IN} reg., NVDC power path, BC1.2, JEITA NTC, dual NTC, shipping mode, thermal reg., USB OTG								
	MP2720A	3.9	6.3	26	2.2	3.6 to 4.6	3	750 to 1500	I ² C	✓	Li-Ion, Li-Polymer	QFN-22 (2.5x3.5)	Input current reg., V_{IN} reg., NVDC power path, BC1.2, JEITA NTC, dual NTC, shipping mode, thermal reg., USB OTG								

	Part Number		Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Battery Charge Voltage (V)	OTG Current (Max) (A)	f_{SW} (kHz)	Control Interface	NVDC Power Path	Battery Type	Package	Notes
	MP2721		3.9	16	26	5	3.6 to 4.6	3	750 to 1500	I ² C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	Input current reg., V_{IN} reg., NVDC power path, BC1.2, JEITA NTC, dual NTC, shipping mode, thermal reg., USB OTG
	MP2722		3.9	16	26	5	3.6 to 4.6	3	750 to 1500	I ² C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	Input current reg., V_{IN} reg., NVDC power path, BC1.2, USB Type-C DRP, JEITA NTC, dual NTC, shipping mode, thermal reg., USB OTG
N	MP2724		3.9	6.3	26	2.2	3.6 to 4.6	3	750 to 1500	I ² C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	Input current reg., V_{IN} reg., NVDC power path, BC1.2, USB Type-C sink mode, JEITA NTC, dual NTC, shipping mode, thermal reg., USB OTG
	MP2770		4	16	20	6	3.6 to 4.45	3.65	500 to 1000	I ² C	✓	Li-Ion, Li-Polymer	QFN-18 (3x4)	JEITA batt. NTC monitor, power-path management, integrated ADC, OTP prog. charging parameters, prog. boost V_{OUT} and I_{OUT}
N	MP2772		4	13.5/6.5	26	2	3.6 to 4.6	1.5	1500/2000	I ² C	✓	Li-Ion, Li-Polymer	WLCSP-30 (2.5x2.85)	Input current reg., V_{IN} reg., JEITA batt. NTC monitor, NVDC power path, OTP memory, shipping mode, thermal reg., USB BC1.2 input det., USB OTG with dual outputs
S	MP2718		3.9	16	22	2.5	3.6 to 4.5	2.1	1200 to 2400	I ² C	✓	Li-Ion, Li-Polymer	QFN-20 (3mmx3mm)	Input current reg., V_{IN} reg., NVDC power path, JEITA NTC, PMID power path, shipping mode, thermal reg.

Linear Chargers

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (mA)	Battery Charge Path	Power	Control Interface	Battery Type	Package	Notes
MPQ5480	4	6	7	7.8 to 127	4.1	✓	Standalone	Li-Ion, Li-Polymer	WLCSP-16 (1.7x1.7)	Integrated buck regulator and load switch, USB compatible
MP2603	2.8	5.25	25	50 to 150	4.2	-	Standalone	Li-Ion, Li-Polymer	TSOT23-5	Charging indication
MP2660	4	5.85	13	8 to 500	3.6 to 4.5	✓	I ² C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.55x1.55)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2661	4	5.85	13	8 to 500	3.6 to 4.565	✓	I ² C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.55x1.55)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2662	3.83	5.85	21	8 to 456	3.6 to 4.5	✓	I ² C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.75x1.75)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2663	4.35	5.5	13	8 to 500	3.6 to 4.5	✓	I ² C	Li-Ion, Li-Polymer, LiFePO4	WCSP-9 (1.55x1.55)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2664	4	5.85	13	8 to 500	3.6 to 4.5	✓	I ² C	Li-Ion, Li-Polymer, LiFePO4	QFN-10 (2x2)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2602	3.2	5.8	28	85 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	NTC batt. temp monitor, adapter present, charging indication, prog. termination current
MP26028	3.2	6.8	20	85 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current
MP26029	3.9	6.25	13	30 to 1000	3.6 to 4.4	-	Standalone	Li-Ion, Li-Polymer	SOT563, SOIC-8E, QFN-10 (3x3)	Batt. NTC monitor, OTP memory, thermal reg., USB compatible
MP2604	3.2	6.7	28	85 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current, NTC batt. temp monitor
MP2605	2.5	6.7	28	200 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, NTC batt. temp monitor
MP26053	2.5	6.7	28	200 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, NTC batt. temp monitor
MP26056	2.5	6.8	28	200 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Dual-mode USB/AC adapter current limits, adapter present, charging indication, prog. termination current
MP26057	3.5	7	28	200 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current, NTC batt. temp monitor
MP26058	2.8	6.7	28	200 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current, NTC batt. temp monitor
MP2606	3.2	6.8	28	85 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current
MP26060	3.2	6.8	24	85 to 1000	4.15	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, prog. termination current

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (mA)	Battery Charge Voltage (V)	Power Path	Control Interface	Battery Type	Package	Notes
MP2607	4.51	6.27	13	300 to 1500	4.2	✓	Standalone	Li-Ion, Li-Polymer	QFN-14 (3x4)	Power-path management, dual-mode USB/AC adapter current limits, low $R_{DS(ON)}$, adapter present, charging indication, NTC batt. temp monitor
MP2608	4.25	5.8	28	100 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Dual-input, fault and charging indication, prog. termination current
MP26121	2.5	6.7	28	200 to 1000	4.2	-	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Adapter present, charging indication, NTC batt. temp monitor
MP2631	2.5	6.7	28	200 to 1000	4.2	✓	Standalone	Li-Ion, Li-Polymer	QFN-10 (3x3)	Integrated 10mA LDO, adapter present, charging indication
MP2667	4	5.85	13	16 to 1000	3.6 to 4.5	✓	I ² C	Li-Ion, Li-Polymer, LiFePO ₄	QFN-10 (2x2)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2665A	3.8	6.1	21	16 to 896	3.6 to 4.545	✓	I ² C	Li-Ion, Li-Polymer, LiFePO ₄	QFN-12 (2.5x3)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
MP2700	4.375	13.5	26	20 to 1000	2.4 to 4.5	-	Standalone	NiMH, Li-Ion, Li-Polymer, LiFePO ₄	WLCSP-8 (1.05x1.6)	Charging indication, V_{IN} reg., JEITA NTC, OTP memory, thermal reg.
MP2702	4.375	13.5	26	20 to 1000	2.4 to 4.5	-	Standalone	NiMH, Li-Ion, Li-Polymer, LiFePO ₄	QFN-10 (2x2.5)	Charging indication, V_{IN} reg., JEITA NTC, OTP memory, thermal reg., EN control
MP2703	4.375	13.5	26	20 to 1000	2.4 to 4.5	-	Standalone	NiMH, Li-Ion, Li-Polymer, LiFePO ₄	QFN-10 (2x2.5)	Charging indication, V_{IN} reg., JEITA NTC, OTP memory, thermal reg., battery diagnostics
MP2710	3.35	5.85	21	8 to 456	3.6 to 4.545	✓	I ² C	Li-Ion, Li-Polymer	WLCSP-9 (1.85x1.85)	Batt. OCP/UVLO, JEITA batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible

Multi-Cell Switching Chargers

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (V)	Battery Charge Voltage (V)	f_{SW} (kHz)	Topology	# of Series Cells	Control Interface	Battery Type	Package	Notes
MP2610	5	24	26	2	4.2/ 8.4	1100	Non-Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP26101	5	24	26	2	4.1/ 8.2	1100	Non-Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP26123	9	24	26	2	8.4/ 12.6	600	Non-Sync Buck	2, 3	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP26124	18	24	28	2	16.8	600	Non-Sync Buck	4	Standalone	Li-Ion, Li-Polymer	QFN-16 (4x4)	Batt. NTC monitor
MP2615	3.95	18	23	2	4.1/ 8.4	600	Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, input status/charging indication
MP2615A	3.95	18	23	2	4.2/ 8.7	600	Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, input status/charging indication
MP2619	3.4	24	26	2	8.4/ 12.6	600	Non-Sync Buck	2, 3	Standalone	Li-Ion, Li-Polymer	QFN-28 (4x5)	Power-path management, batt. NTC monitor
MP2623	3.5	24	26	2	3.6/ 7.2	1100	Non-Sync Buck	1, 2	Standalone	LiFePO4	QFN-16 (4x4)	Batt. NTC monitor
MP2672	3.75	5.75	14	2	8.3 to 9	600/ 1200	Sync Boost	2	I ² C/ Standalone	Li-Ion, Li-Polymer	QFN-18 (2x3)	NVDC power-path management, JEITA batt. NTC monitor, OTP prog. charging parameters, integrated cell-balancing
MP2639A	4.05	5.75	20	2.5	8.4	1300	Sync Boost	2	Standalone	Li-Ion, Li-Polymer	QFN-26 (4x4)	JEITA batt. NTC monitor, LED fuel gauge, batt. current monitor, integrated cell-balancing, USB OTG
MP2639C	4.05	5.5	20	2.5	8.4	1300	Sync Boost	2	Standalone	Li-Ion, Li-Polymer	QFN-26 (4x4)	USB OTG, integrated cell-balancing, USB compatible, JEITA batt. NTC monitor, thermal reg., V_{IN} reg., LED fuel gauge
MP2659	4.2	36	45	3	10.8 to 26.4	700/ 350	Sync Buck	3, 4, 5, 6	Standalone	Li-Ion, Li-Polymer	QFN-19 (3x3)	Batt. NTC monitor, V_{IN} reg., input current reg. OTP prog. charging parameters, integrated power FETs, input status/charging indication
MP2615C	3.95	18	23	2.1	4.1 to 8.4	760	Sync Buck	1, 2	Standalone	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, 25m Ω R_{SNS}
MP2672A	3.65	5.75	14	2	8.2 to 8.9	600/ 1200	Sync Boost	2	I ² C/ Standalone	Li-Ion, Li-Polymer	QFN-18 (2x3)	JEITA batt. NTC monitor, NVDC power path, thermal reg., V_{IN} reg., integrated cell-balancing, OTP memory
MP2762A	4	21	28	6	7.425 to 9	600/ 800/ 1000	Buck or Boost	2	I ² C	Li-Ion, Li-Polymer	QFN-30 (4x5)	JEITA batt. NTC monitor, NVDC power path, V_{IN} reg., input current reg., OTP memory, dual-phase operation, batt. current monitor, integrated ADC

	Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Battery Charge Voltage (V)	f_{SW} (kHz)	Topology	# of Series Cells	Control Interface	Battery Type	Package	Notes
	MP2759	3.9	36	45	3	3.6 to 26.4	450/700	Sync Buck	1, 2, 3, 4, 5, 6	Standalone	Li-Ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	JEITA batt. NTC monitor, input bypass power path, V_{IN} reg., input current reg., OTP memory, input status/charging indication
	MP2759A	3.9	36	45	3	3.6 to 26.4	450/700	Sync Buck	1, 2, 3, 4, 5, 6	Standalone	Li-Ion, Li-Polymer, LiFePO4	QFN-19 (3x3)	Batt. NTC monitor, input bypass power path, V_{IN} reg., input current reg., OTP memory, input status/charging indication
	MP2650	4	21	28	5	7.425 to 18	600/800/1000	Buck or Boost	2, 3, 4	I ² C	Li-Ion, Li-Polymer	QFN-30 (4x5)	JEITA batt. NTC monitor, NVDC power path, V_{IN} reg., input current reg., OTP memory, batt. current monitor, integrated ADC
	MP2651	4	22	28	6	3.4 to 18.68	500 to 1200	Buck-Boost	1, 2, 3, 4	I ² C/ Standalone	Li-Ion, Li-FePO4, Li-Polymer	TQFN-30 (4x5)	Batt. current monitoring, batt. UVP, input current reg., V_{IN} reg., integrated ADC, JEITA batt. NTC monitor, OTP memory, thermal reg., USB compatible, USB OTG
N	MP2652	4	22	26	6	7.2 to 22	375 to 770	Buck-Boost	2, 3, 4, 5	I ² C/ Standalone	Li-Ion, Li-FePO4, Li-Polymer	TQFN-30 (4x5)	Batt. current monitoring, input current reg., V_{IN} reg., integrated ADC, integrated LDO, JEITA batt. NTC monitor, NVDC power path, OTP memory, thermal reg., USB compatible, USB OTG, USM control
N	MP2658	4.5	36	45	3	2 to 31	350/680	Buck	1, 2, 3, 4, 5, 6, 7	Standalone	Li-Ion, Li-FePO4, Li-Polymer, Lead Acid, Super Cap, NiMH, NiCd	QFN-19 (3x3)	NTC monitor, OTP memory, batt. OVP, prog. V_{BATT_REG} , input current reg., V_{IN} reg., safety timer, termination current enable/disable
	MP2760	4	22	28	6	3.4 to 18.72	500 to 1200	Buck-Boost	1, 2, 3, 4	I ² C/ Standalone	Li-Ion, Li-FePO4, Li-Polymer	TQFN-30 (4x5)	V_{BATT_REG} batt. current monitor, batt. UVP, input current reg., V_{IN} reg., integrated ADC, JEITA batt. NTC monitor, NVDC power path, OTP memory, thermal reg., USB compatible, USB source mode, USM control
N	MP2761	4	22	28	6	7.2 to 18.68	375 to 770	Buck-Boost	2, 3, 4	I ² C/ Standalone	Li-Ion, Li-FePO4, Li-Polymer	TQFN-30 (4x5)	V_{BATT_REG} batt. current monitor, batt. UVP, input current reg., V_{IN} reg., integrated ADC, JEITA batt. NTC monitor, NVDC power path, OTP memory, thermal reg., USB compatible, USB source mode, USM control

	Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Battery Charge Voltage (V)	f_{SW} (kHz)	Topology	# of Series Cells	Control Interface	Battery Type	Package	Notes
N	MP2764	4	22	28	8	22	500 to 1000	Buck-Boost	2, 3, 4, 5	I ² C/SMBus	Li-Ion, Li-Polymer	QFN-32 (4x5)	All FETs integrated with driver for ext. BATFET, NVDC power path, USB PD source mode, system power (PSYS) monitor, input current (I_{AM}) and battery current (I_{BM}), processor hot indication (/PROCHOT), V_{BATT_REG} , batt. UVP, batt. current monitoring, V_{IN} reg., input current reg., integrated ADC, USB PD source mode, OTP memory, thermal reg.
S	MP2769	4.75	60	70	25	7.2 to 48	150 to 700	Buck-Boost	2 to 13	I ² C	Li-Ion, LiFePO4	QFN-32 (5x6)	Buck-boost controller, input current reg., V_{IN} reg., integrated ADC, NTC hot monitor, OTP memory, USB PD compatible

CC & CV Controllers

	Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (Max) (A)	Charge Status	Charge Type	Battery Charge Voltage (V)	Package	Notes
	MP26075	2.5	6.1	28	1	✓	CV/CC Linear	4.05 to 4.2	QFN-10 (3x3)	Pre-charge function, thermal foldback, voltage control function for flyback controller
	MP26085	7	20	22	-	-	CV/CC Controller	Prog	SOT23-8	1.223V voltage reference
	MP2681	4.9	30	36	4	✓	CV/CC Controller	12.45 to 20.75 (3S to 5S)	SOIC-16	Full protection and indication, one-chip solution for power tool applications
	MP2681B	4.9	30	36	5	✓	CV/CC Controller	12.44 to 20.74 (3S to 5S)	SOIC-16	Full protection and indication, one-chip solution for power tool applications

Switched Capacitor Converters

	Part Number	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Max Discharge Current (A)	Max Reverse Charge Current (A)	Peak Efficiency (%)	f_{SW} (Min) (kHz)	f_{SW} (Max) (kHz)	Control Interface	# of Series Cells	Package	Notes
N	MP2752	11	16	10	5	0.993	250	800	I ² C	2	WLCSP-42 (2.9x2.55)	Audio mode, freq. dithering, shipping mode, dead battery wakeup, direct charge
N	MP2753	11	16	10	-	0.993	250	800	I ² C/ Standalone	2	WLCSP-42 (2.9x2.55)	Audio mode, freq. dithering, shipping mode
S	MP2755	11	16	10	5	0.993	250	800	I ² C/ Standalone	2	WLCSP-42 (2.9x2.55)	Audio mode, freq. dithering, shipping mode, dead battery activation

Input Protection

	Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Current (Max) (A)	Charge Type	Package	Notes
	MP2670	3	5.55	30	1.5	Battery Protection	QFN-10 (3x3)	Input OVP/OCV, batt. OVP, OTP, fault indication
	MP2671	2.7	5.65	30	1.5	Battery Protection	QFN-12 (3x4)	Input OVP/OCV, batt. OVP, OTP, prog. current limit
	MP2676	2.8	5.8	30	1.6	Battery Protection	QFN-8 (2x2)	Input OVP/OCV, batt. OVP, OTP, integrated charging FET
	MP2678	2.8	9.9	30	1.7	Battery Protection	QFN-8 (2x2)	Input OVP/OCV, batt. OVP, OTP, 5V LDO mode

Fuel Gauges

	Part Number	# of Series Cells	Chemistry	Communication Interface		External SOC Indication		Pack SOC Accuracy ¹		Cell Impedance Monitoring Thermal Model ²		Battery Monitor I/F	Features	Package
	MPF42790	2 to 16	Li-Ion, Li-Polymer	I ² C	LED	±3%	-	-	Via MCU			Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)	
	MPF42791	2 to 16	Li-Ion, Li-Polymer	I ² C	LED	±3%	✓	✓	Via MCU			Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)	
	MPF42792	2 to 16	Li-Ion, Li-Polymer	I ² C	-	±3%	-	-	Via MCU			Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)	
	MPF42795	2 to 10	Li-Ion, Li-Polymer	I ² C	LED	±3%	-	-	Via MCU			Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)	
	MPF42797	2 to 10	Li-Ion, Li-Polymer	I ² C	-	±3%	-	-	Via MCU			Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)	
	MPF42793	2 to 16	LFP	I ² C	LED	±5%	✓	✓	Via MCU			Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)	

	Part Number	# of Series Cells	Chemistry	Communication Interface	External SOC Indication	Pack SOC Accuracy ¹	Cell Impedance Monitoring	Thermal Model ²	Battery Monitor I/F	Features	Package
S	MPF42780	3 to 16	Li-Ion, Li-Polymer, LFP	I ² C	LED	±3%/±5% (LFP)	✓	✓	Direct	Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)
S	MPF42781	4 to 18	Li-Ion, Li-Polymer, LFP	I ² C	LED	±3%/±5% (LFP)	✓	✓	Direct	Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)
S	MPF42786	2 to 112	Li-Ion, Li-Polymer, LFP	I ² C	LED	±3%/±5% (LFP)	✓	✓	Via MCU	Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)
S	MPF42794	2 to 24	Li-Ion, Li-Polymer, LFP	I ² C	LED	±3%/±5% (LFP)	✓	✓	Via MCU	Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)
S	MPF11770	2 to 8	Li-Ion, Li-Polymer, LFP	I ² C	LED	±3%/±5% (LFP)	✓	✓	Battery Monitor Integrated	Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging, cell-balancing, HS-FET driver, integrated protector	QFN-48 (6x6)

1) Pack SOC over-temperature, when paired with an MP279x battery monitor.

2) The thermal model increases SOC accuracy by dynamically compensating for cell self-heating.

Monitoring & Protection

	Part Number	# of Series Cells	Battery Pack Voltage (V)	CHG/DSG FET Driver	Separate Port Control	Cell-Balancing	Coulomb Counting	Discharge Soft Start	Load/Charge Detection	Cell Voltage Synchronized w/ Current Measurement	OT Cell Voltage Accuracy @ 25°C (-20°C to +65°C)	Communication Interface	Interrupt Alert	Package	Notes	
	MP2787	7 to 16	18 to 86	-	-	✓	✓	-	-	✓	±5mV	±7.5mV	I ² C/SPI + CRC	✓	TQFP-48 (7x7)	Prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, general-purpose I/O pins, 1 high-voltage GPIO
	MP2790	4 to 10	10 to 75	High-Side	✓	✓	✓	✓	✓	✓	±5mV	±7.5mV	I ² C/SPI + CRC	✓	TQFP-48 (7x7)	Prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, persistent dead cell flag, general-purpose I/O pins, 1 high-voltage GPIO
	MP2791	7 to 14	18 to 75	High-Side	-	✓	✓	✓	✓	✓	±5mV	±7.5mV	I ² C/SPI + CRC	✓	TQFP-48 (7x7)	Prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, persistent dead cell flag, general-purpose I/O pins, 1 high-voltage GPIO
N	MP2793	4 to 16	10 to 86	High-Side	✓	✓	✓	✓	✓	✓	±5mV	±7.5mV	I ² C/SPI + CRC	✓	TQFP-48 (7x7)	Independent control of CHG/DSG FETs, prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, persistent dead cell flag, general-purpose I/O pins, 1 high-voltage GPIO

	Part Number	# of Series Cells	Battery Pack Voltage (V)	CHG/DSG FET Driver	Separate Port Control	Cell-Balancing	Coulomb Counting	Discharge Soft Start	Load/Charger Synchronized	Cell Voltage Detection w/ Current Measurement	OT Cell Voltage Accuracy @ 25°C (-20°C to +65°C)	Cell Voltage Accuracy	Communication Interface	Interrupt Alert	Package	Notes
N	MP2795	7 to 16	18 to 86	High-Side	-	✓	✓	✓	✓	✓	±5mV	±10mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, persistent dead cell flag, general-purpose I/O pins
	MP2796	7 to 16	18 to 86	High-Side	-	✓	-	✓	-	-	±10mV	±12.5mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, persistent dead cell flag, general-purpose I/O pins
	MP2797	7 to 16	18 to 86	High-Side	-	✓	✓	✓	✓	✓	±5mV	±7.5mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, persistent dead cell flag, general-purpose I/O pins, 1 high-voltage GPIO
S	MP2797A	7 to 16	18 to 86	High-Side	-	✓	✓	✓	✓	✓	±3mV	±4.5mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Prog. thresholds for OC, short-circuit, UV, OV, and high/low temp, persistent dead cell flag, general-purpose I/O pins, 1 high-voltage GPIO
N	MP2798	3 to 18	7.5 to 86	-	-	✓	✓	-	-	✓	±3mV	±4mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Intelligent open-wire detection, integrated 3.3V and 5V LDO, random cell connection tolerant, watchdog
N	MP3710	3 to 18	7.5 to 86	High-Side	-	✓	-	✓	-	-	-	-	N/A, Standalone	-	TQFP-48 (7x7)	Standalone protector device, intelligent open-wire detection, DSG soft start, integrated 3.3V and 5V LDO, reduced current standby mode, random cell connection tolerant
N	MP3712	3 to 8	7.5 to 86	High-Side	✓	✓	✓	✓	✓	✓	±3mV	±4mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Intelligent open-wire detection, integrated 3.3V and 5V LDO, random cell connection tolerant, watchdog
N	MP3713	3 to 10	7.5 to 86	High-Side	✓	✓	✓	✓	✓	✓	±3mV	±4mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Intelligent open-wire detection, integrated 3.3V and 5V LDO, random cell connection tolerant, watchdog
N	MP3714	3 to 16	7.5 to 86	High-Side	✓	✓	✓	✓	✓	✓	±5mV	±7.5mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Intelligent open-wire detection, integrated 3.3V and 5V LDO, random cell connection tolerant, watchdog
N	MP3716	3 to 18	7.5 to 86	High-Side	✓	✓	✓	✓	✓	✓	±3mV	±4mV	I²C/SPI + CRC	✓	TQFP-48 (7x7)	Intelligent open-wire detection, integrated 3.3V and 5V LDO, random cell connection tolerant, watchdog

	Part Number	# of Series Cells	Battery Pack Voltage (V)	CHG/DSG FET Driver	Separate Port Control	Cell-Balancing	Coulomb Counting	Discharge Soft Start	Cell Voltage Synchronized w/ Current Measurement	Cell Voltage Accuracy @ 25°C (-20°C to +65°C)	OT Cell Voltage Accuracy	Communication Interface	Interrupt Alert	Package	Notes
S	MP3717	4 to 20	10 to 140	High-Side	✓	✓	✓	✓	✓	±3mV	±4mV	I ² C/SPI + CRC	✓	LQFP-64 (7x7)	Intelligent open-wire detection, integrated 3.3V and 5V LDO, random cell connection tolerant, watchdog
S	MP3718	4 to 24	10 to 140	High-Side	✓	✓	✓	✓	✓	±3mV	±4mV	I ² C/SPI + CRC	✓	LQFP-64 (7x7)	Intelligent open-wire detection, integrated 3.3V and 5V LDO, random cell connection tolerant, watchdog

Active Balancers

	Part Number	Topology	Cell Chemistry	# of Series Cells	Maximum Net Balance Current (A)	Minimum V_{IN} (V)	Maximum V_{IN} (V)	Shutdown Current (µA)	Efficiency @ $V_{CELL} = 3.3V$	Directly Powered from Battery Cells	OVP/UVP	OCP/UCP	Control Interface	Special Features	Package (mm)
S	MP2640	Bidirectional, Buck-Boost	Li-Ion, Li-Po, LFP	2	2.5	3.8	16	30	89.0%	✓	✓	✓	2-Pin	Integrated FETs, temp reg. and monitoring, 5V for local isolator power and logic pull-up	QFN-26 (4x4)
S	MP2641	Bidirectional, Buck-Boost	Li-Ion, Li-Po, LFP	2	2	3.8	16	25	92.8%	✓	✓	✓	2-Pin	Integrated FETs, temp reg. and monitoring, 5V for local isolator power and logic pull-up	QFN-26 (4x4)
N	MP2642	Bidirectional, Buck-Boost	Li-Ion, Li-Po, LFP	2	1	3.8	16	12	92.8%	✓	✓	✓	2-Pin	Integrated FETs, temp reg. and monitoring, simple digital logic or battery monitor control	QFN-26 (4x4)
N	MP2643	Bidirectional, Buck-Boost	Li-Ion, Li-Po, LFP	2	2	3.8	16	12	92.8%	✓	✓	✓	2-Pin	Integrated FETs, temp reg. and monitoring, simple digital logic or battery monitor control	QFN-26 (4x4)
N	MP2645	Bidirectional, Buck-Boost	Li-Ion, Li-Po, LFP	5	3.75	5	24	2	93.0%	✓	✓	✓	1-Wire Serial	Stackable comm. for up to 8 MP2645 (33 series cells), watchdog timer, thermal shutdown	QFN-19 (4x4)
S	MPQ2645	Bidirectional, Buck-Boost	Li-Ion, Li-Po, LFP	5	3.75	5	24	2	93.0%	✓	✓	✓	1-Wire Serial	Automotive-qualified, stackable comm. for up to 8 MPQ2645 (33 series cells), watchdog timer, thermal shutdown	QFN-19 (4x4)

White LED Drivers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V_{FB} (V)	f_{SW} (kHz)	Open LED Protection	Type	Package	Notes
MP9361	2.8	5	5	1	-	-	1350	✓	Reg Charge Pump	TSOT23-6	Internal soft start
MPQ9361	2.8	5	5	1	-	-	1350	✓	Reg Charge Pump	TSOT23-6	Internal soft start, industrial grade
MP3412	0.8	4.4	5	1	1.1	0.2	1000	✓	Boost	TSOT23-6	High efficiency
MP3204	2.5	6	21	1	0.35	0.104	1300	✓	Boost	TSOT23-6	UVLO, low EMI, thermal shutdown
MP3205	2.5	6	21	1	0.35	0.104	1300	-	Boost	TSOT23-5	MP3204 without the OV pin
MP3304B	3	6	24	1	1.33	0.2	2200	✓	Boost	QFN-8 (2x3)	High efficiency, true PWM dimming
MP1518	2.5	6	25	1	0.35	0.104	1300	-	Boost	QFN-8 (2x2), TSOT23-6	External current-sense resistor
MP1488	2.5	6	25	1	0.8	0.104	1300	-	Boost	TSOT23-6	Fixed frequency
MP3202	2.5	6	25	1	1.33	0.104	1300	✓	Boost	QFN-8 (2x2), TSOT23-5	UVLO, low EMI, thermal shutdown, 25V max output
MP3306	3	12	30	1	1.8	0.2	700	✓	Boost	QFN-12 (2x2)	Synchronous boost, integrated disconnect FET
MP3301	2.5	6	36	1	1	0.2	1300	✓	Boost	TSOT23-5	Up to 10 series LED
MP3302	2.5	6	36	1	1.33	0.2	1300	✓	Boost	QFN-8 (2x3), TSOT23-5	UVLO, low EMI, thermal shutdown
MP3305	3	6	36	1	1.33	0.2	2200	✓	Boost	QFN-8 (2x3)	High efficiency, true PWM dimming, adjustable OVP threshold
MP3308	3	6	36	1	1.33	0.2	2200	✓	Boost	QFN-14 (3x4)	Supports CABC dimming
MP1517	2.6	25	25	1	4	0.7	1100	✓	Boost	QFN-16 (4x4)	UVLO, external compensation
MP1528	2.7	36	36	1	0.95	0.4	Variable	✓	Boost	MSOP-8, QFN-6 (3x3), QFN-8 (2x3)	Drives up to 9 series white LED drivers
MP3309L	2.7	5.5	24	1	1.6	0.2	300 to 2200 Prog	✓	Boost	QFN-10 (1.4x1.8)	Synchronous boost
MP3309	2.7	5.5	35	1	1.5	0.2	300 to 2200 Prog	✓	Boost	QFN-10 (1.4x1.8)	Synchronous boost
MP3309A	2.7	5.5	35	1	1.5	0.2	300 to 2200 Prog	✓	Boost	QFN-10 (3x3)	Synchronous boost
MP3309C	2.7	5.5	35	1	1.5	0.2	300 to 2200 Prog	✓	Boost	QFN-10 (1.4x1.8)	Synchronous boost, I ² C interface
MP3307	2.7	5.5	35	1	1.6 (Min)	0.2	300 to 2200 Prog	✓	Boost	TSOT23-8	For automotive infotainment LCDs
MP3362	3	36	36	1	4	0.2	200 to 2200 Prog	✓	Boost	TSOT23-8	Low $R_{DS(ON)}$, soft start

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V _{FB} (V)	f _{SW} (kHz)	Open LED Protection	Type	Package	Notes
MP3363	1.8	36	36	1	1	0.2	200 to 2200 Prog	✓	Boost	TSOT23-8	Low R _{DS(ON)} , soft start
MP3310	4.5	25	50	1	1.3	0.5	1200 Prog	✓	Boost	QFN-10 (3x3)	Wide input range, true PWM dimming
MP3370	3.5	36	38	1	3	-	400	✓	Boost	SOIC-8E	Internal current source
MP4013B	8	26	Ext FET	1	Ext FET	0.6	100 to 600	✓	Boost	SOIC-16	More features and better protection, replaces the MP4012 and MP4013 in new designs
MP23701	4.2	24	-	1	5	0.1	1500	✓	Buck	UTQFN-8 (1.5x2.5)	2A, synchronous, step-down LED driver
MP4700	Offline	Offline	Ext FET	1	Ext FET	0.3	Up to 160	✓	Buck	SOIC-8E	BCM zero-current and valley voltage switching >97% efficiency, low BOM cost, low-power stress
MP24830 -C470	4.5	90	Ext FET	1	Ext FET	0.201	50 to 365	✓	Buck-Boost	SOIC-14, QFN-14 (3x4)	Power leverage in 2.5 power stages, low BOM cost, high efficiency
MP3312	2.7	5.5	36	2	1.8	0.24	1200	✓	Boost	WLCSP-9 (1.3x1.3)	30mA/string, balanced LED current
MP3313	2.7	5.5	38	3	1.5	-	250 /500 /1000	✓	Boost	WLCSP-12	Linear/exponential analog dimming, 100mA LED current in flash mode, I ² C
MP3318	2.7	5.5	38	3	1.5	-	250 /500 /1000	✓	Boost	WLCSP-12	Linear/exponential analog dimming, 100mA LED current in flash mode, I ² C
MP1519	2.5	5.5	10	4	-	-	1300	-	Charge Pump	QFN-16 (3x3)	Common cathode
MP3384L	3	25	50	4	1.2	0.6	625 or 1250	✓	Boost	QFN-16 (3x3)	-
MP3359	3.5	40	45	4	7	-	200 to 2200	✓	Boost/SEPIC	QFN-20 (3x4)	150mA/ch, separated PWM and analog dimming pin
N MP3359A	3.5	40	45	1/2/3/4	7	-	200 to 2200	✓	Boost/SEPIC	QFN-20 (3x4)	150mA/ch, separated PWM and analog dimming pin
N MP3359C	3.5	40	Ext FET	1/2/3/4	Ext FET	-	200 to 2200	✓	Boost/SEPIC	QFN-20 (3x4)	160mA/ch, separated PWM and analog dimming pin
MP3364	3.5	36	45	4	5.5	-	200 to 2200	✓	Boost/SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I ² C interface (3x IC addresses)
N MP3365	3.5	36	45	4	7	-	200 to 2200	✓	Boost/SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I ² C (3x IC addresses) interface for dimming, NTC
MP3394S	5	28	Ext FET	4	Ext FET	0.3	150 to 500	✓	Boost	TSSOP-16EP, SOIC-16	Max 55V V _{LEDX_PIN} , max 200mA/string
MP3398A	5	28	Ext FET	4	Ext FET	0.6	100 to 500	✓	Boost	TSSOP-16EP, SOIC-16, SOIC-20	Max 55V V _{LEDX_PIN} , max 350mA/string, inductor short protection, separate ADIM pin
MP3398D	5	28	Ext FET	4	Ext FET	-	100 to 500	✓	Boost	SOIC-16, SOIC-20	Max 55V V _{LEDX_PIN} , max 350mA/string, PWM and analog dimming
MP3398L	4.5	28	Ext FET	4	Ext FET	0.6	100 to 500	✓	Boost	SOIC-16	Lower V _{IN} (min) than the MP3398A
MP3398E	4.5	33	Ext FET	4	Ext FET	-	100 to 500	✓	Boost	SOIC-16, TSSOP-16EP, PDIP-16	Max 80V V _{LEDX_PIN} , max 400mA/string, PWM and analog dimming
MP3398H	4.5	33	Ext FET	4	Ext FET	-	100 to 900	✓	Boost	SOIC-16	Max 80V V _{LEDX_PIN} , max 400mA/string, PWM and analog dimming
MP3383	4.5	33	Ext FET	4	Ext FET	-	100 to 900	✓	Boost	SOIC-16, TSSOP-16EP	Max 80V V _{LEDX_PIN} , max 400mA/string, 12V V _{GATE} , PWM and analog dimming

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V_{FB} (V)	f_{SW} (kHz)	Open LED Protection	Type	Package	Notes
MP3385A	4.5	33	Ext FET	4	Ext FET	-	100 to 900	✓	Boost	QFN-20 (4x4)	I ² C, max 80V $V_{LEDX, PIN1}$ max 300mA/ch, replaces the MP3385
MP3385B	4.5	33	Ext FET	4	Ext FET	-	100 to 900	✓	Boost	QFN-20 (4x4)	I ² C, max 80V $V_{LEDX, PIN1}$ max 300mA/ch, $I_{LED} \leq 3mA$ during analog dimming
MP3378	5	24	Ext FET	4	-	-	300 to 500	✓	Boost + Buck	SOIC-28, TSSOP-28EP	Max 55V $V_{LEDX, PIN1}$ integrated boost controller and DC/DC buck converter, AAM power-save mode
MP3378E	5	24	Ext FET	4	-	-	300 to 500	✓	Boost + Buck	TSSOP-28EP	Max 55V $V_{LEDX, PIN1}$ integrated boost controller and DC/DC buck converter, separate EN pin
MP4653	Offline	Offline	Ext FET	4	Ext FET	0.2	20 to 250	✓	LLC	SOIC-20	LIPS CC/CV mode, low BOM cost, high efficiency
MP4655	Offline	Offline	Ext FET	2	Ext FET	0.2	40 to 130	✓	LLC	SOIC-28	Single-stage LED driver and system voltage regulator
MP4658	6	36	80	4	-	1.2	20 to 350	✓	Pre-Flyback	SOIC-16	Max 80V $V_{LEDX, PIN1}$ analog and PWM dimming with AC/DC feedback
MP4657A	4	16	Ext FET	4	Ext FET	1.2	20 to 350	✓	Pre-Flyback	SOIC-16	Pure single-stage, flyback LED driver and system voltage controller
MP4657B	4	16	Ext FET	4	Ext FET	1.2	20 to 350	✓	Pre-Flyback	SOIC-16	Improves audible noise reduction performance
MP3366	3	25	50	6	2.5	0.5	600	✓	Boost	WLCSP-18 (1.3x2.5)	Smart dimming, tablet PCs
MP3314	2.7	30	43	6	Configurable	-	312/625/1250	✓	Boost	CSP-20 (2.4x1.74), QFN-24 (4x4)	60mA, 50V, boost WLED driver with I ² C interface
MP3314A	2.7	30	43	6	Configurable	-	312/625/1250	✓	Boost	CSP-20 (2.4x1.74)	80mA, 50V, boost WLED driver with 2x PWM dimming for VR applications
S MP3317	2.5	33	34	6	Configurable	-	312/625/1250	✓	Boost	CSP-20 (2.45x1.75)	160mA, boost WLED driver with I ² C interface for VR applications
MP3387A	3	26	50	6	2.5	-	500 to 1250	✓	Boost	TQFN-24 (4x4)	Max 80mA/string, combined analog and PWM dimming
MP3387L	3	26	50	6	2.5	0.6	500 to 1250	✓	Boost	TQFN-24 (4x4)	Smart dimming
MP3367	3.5	36	45	6	3	0.4	200 to 2200	✓	Boost/SEPIC	QFN-24 (4x4), TSSOP-28EP	150mA/ch, PWM/analog/mixed dimming, I ² C interface
MP3388S	4.5	25	50	8	2	0.6	625 or 1250	✓	Boost	QFN-24 (4x4)	PWM/DC input PWM dimming
MP3376	3	30	36	8	2.5	-	350 to 2400	✓	Sync Boost	QFN-24 (4x4)	Max 50mA/string, I ² C interface
MP3376A	3	30	37.5	8	2.5	-	350 to 2400	✓	Sync Boost	QFN-24 (4x4)	Max 50mA/string, I ² C interface
MP3371	2.7	30	45	8	1.8/2.5	-	350/500/650/800/950/1200	✓	Sync Boost	QFN-24 (4x4)	I ² C, linear smooth dimming, multi-dimming mode
MP3372	2.7	30	45	8	1.8/2.5	-	350/500/650/800/950/1200	✓	Sync Boost	QFN-24 (4x4)	I ² C, linear smooth dimming, multi-dimming mode, phase-shift function during PWM dimming

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V _{FB} (V)	f _{SW} (kHz)	Open LED Protection	Type	Package	Notes
S	MP3374	3	30	42	8	Configurable	-	312/ 625/ 1250	✓	Sync Boost + Charge Pump	QFN-28 (4x5), CSP-25 (2.6x2.95)	High efficiency for notebook applications
	MP3391	9	35	Ext FET	8	Ext FET	0.45	150 to 500	✓	Boost	TSSOP- 28EP, SOIC-28	Max 55V V _{LEDX_PIN1} , 80mA/ch, ideal for 18" to 24" LCD panels/TVs
	MP3373	9	40	Ext FET	8	Ext FET	0.2	100 to 1000	✓	Boost	SOIC-28, TSSOP-28	Phase shift, inductor short protection, cost effective, replaces the MP3393 in new designs
	MP3389	5	28	Ext FET	12	Ext FET	0.6	100 to 500	✓	Boost	TSSOP- 28EP, SOIC-28	Max 50V V _{LEDX_PIN1} , 120mA/ch, PWM or DC input burst, PWM dimming
	MPQ3362 -AEC1	3	36	36	1	4	0.2	200 to 2200 Prog	✓	Boost	TSOT23-8	Low R _{DS(ON)} , soft start, AEC-Q100 qualified
	MPQ3359 -AEC1	3.5	40	45	4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-20 (3x4)	150mA/ch, separated PWM and analog dimming pin
	MPQ3359A -AEC1	3.5	40	45	1/2/ 3/4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-20 (3x4)	150mA/ch, separated PWM and analog dimming pin
	MPQ3364 -AEC1	3.5	36	45	4	5.5	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I ² C (3x IC addresses)
N	MPQ3365 -AEC1	3.5	36	45	4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I ² C (3x IC addresses) for dimming, NTC
N	MPQ3365A -AEC1	3.5	36	45	5	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I ² C (3x IC addresses) for dimming, NTC
	MPQ3369 -AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4), TSSOP- 28EP	100mA/ch, PWM/analog/mixed dimming, I ² C interface
	MPQ3367 -AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4), TSSOP- 28EP	150mA/ch, PWM/analog/mixed dimming, I ² C interface
	MPQ3367A -AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I ² C (3 x IC addresses)
N	MPQ3359C -AEC1	3.5	40	Ext FET	1/2/ 3/4	Ext FET	-	200 to 2200	✓	Boost/ SEPIC	QFN-20 (3x4)	160mA/ch, separated PWM and analog dimming pin
N	MPQ3366C -AEC1	3.8	36	Ext FET	6	Ext FET	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	Max 50V V _{LEDX_PIN1} , 200mA/ch, PWM/analog/mixed dimming, I ² C (4x IC addresses) for dimming, NTC
S	MPQ3366A -AEC1	3.8	36	Ext FET	6	Ext FET	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	Supports 16-bit PWM dimming resolution based on the MPQ3366C-AEC1 (15 bits)
S	MPQ3368 -AEC1	3.8	36	Ext FET	8	Ext FET	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	Max 50V V _{LEDX_PIN1} , 200mA/ch, PWM/analog/mixed dimming, I ² C (4x IC addresses) for dimming, NTC
S	MPQ3368A -AEC1	3.8	36	Ext FET	8	Ext FET	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	Supports 16-bit PWM dimming resolution based on the MPQ3368-AEC1 (15 bits)

RGB LED Drivers

	Part Number	V _{in} (Min) (V)	V _{in} (Max) (V)	LEDx Abs Voltage (V)	# of Channels	I _{CHANNEL} (Max) (mA)	Dimming Control	Interface	Type	Package	Notes
	MP3320N	1.8	5.5	5.5	3	100	P-Dim	-	Charge Pump	QFN-14 (2x2)	-
	MP3320A	1.8	5.5	5.5	4	51	P-Dim, A-Dim	I ² C (16 Config Addresses)	Charge Pump	QFN-14 (2x2)	Configurable phase shift
	MP3320B	2	5.5	5.4	4	102	P-Dim, A-Dim	I ² C (16 Config Addresses)	Sync Boost	QFN-14 (2x2)	Configurable phase shift
	MP3324	4	16	18	8	100	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MP3326	4	16	18	16	50	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MP3326A	4.5	16	22	16	80	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
S	MP3328A	6	16	55	32	100	P-Dim, A-Dim	SPI (Daisy Chain)	Current Source	QFN-48 (7x7)	Fine-tuned feedback to regulate front-stage LED supply voltage
S	MP3321	3	20	24	48	80	P-Dim, A-Dim	SPI (Daisy Chain)	Current Source	QFN-68 (8x8)	LED current slew rate, phase shift, adaptive voltage feedback
	MPQ3323B-AEC1	4.5	16	22	4	320	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MPQ3324-AEC1	4	16	18	8	100	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MPQ3326-AEC1	4	16	18	16	50	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	I ² C input logic voltage (V _{IL_MAX} : 0.4V, V _{IH_MIN} : 1.3V)
	MPQ3326-AEC1-C03Q	4	16	18	16	50	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	I ² C input logic voltage (V _{IL_MAX} : 0.8V, V _{IH_MIN} : 1.5V)
	MPQ3326A-AEC1	4.5	16	22	16	80	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	I ² C input logic voltage (V _{IL_MAX} : 0.4V, V _{IH_MIN} : 1.3V)
	MPQ3326B-AEC1	4.5	16	22	16	80	P-Dim, A-Dim	I ² C (10 Config Addresses)	Current Source	QFN-24 (4x4)	I ² C input logic voltage (V _{IL_MAX} : 0.8V, V _{IH_MIN} : 1.5V)
N	MPQ3322-AEC1	3.5	22	24	24	100	P-Dim, A-Dim	CAN (16 Config IC Addresses)	Current Source	QFN-40 (6x6)	LED current slew rate, phase shift, adaptive voltage feedback, failsafe mode
N	MPQ3621-AEC1	3	11	24	48	50	P-Dim, A-Dim	SPI (Daisy Chain)	Current Source	QFN-68 (8x8)	LED current slew rate, phase shift, adaptive voltage feedback
N	MPQ3321-AEC1	3	22	24	48	80	P-Dim, A-Dim	SPI (Daisy Chain)	Current Source	QFN-68 (8x8)	LED current slew rate, phase shift, adaptive voltage feedback
S	MPQ3321A-AEC1	3	22	24	48	80	P-Dim, A-Dim	SPI (Daisy Chain)	Current Source	QFN-68 (8x8)	Supports 10µA LED channel current option based on the MPQ3321-AEC1
N	MPQ3327-AEC1	3.5	20	-	4	-	-	SPI (Daisy Chain), GPIO	Scan Switch	QFN-14 (3x3)	8A, 4 switching line scan driver for local dimming, combined with the MPQ3321 for scanning scheme

LCD & OLED Display Power and Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Regulator Blocks	Output Voltage (V)	Current Limit (Typ) (A)	Interface	Package	Notes
	MP5610	2.7	5.5	1x Boost for V_{OP} ; 1x Neg Charge Pump for V_{ON}	V_{OP} Up to 5.8V	V_{OP} : 0.3A	-	QFN-10 (1.4x1.8)	LCD bias power supply
	MP5611	2.9	5.2	1x 0.5A Boost for ELVDD; 1x 0.5A Buck-Boost for ELVSS; 1x 0.1A Boost for AVDD	V_{ELVDD} : 4.6V to 5.2V Config (Default 4.6V); V_{ELVSS} : -1.4V to -6.4V Config (Default -4V); V_{AVDD} : 5V to 7.7V Config (Default 5.8V)	ELVDD: 1.5A; ELVSS: 3A; AVDD: 0.5A	One Wire	TQFN-16 (3x3)	AMOLED display power supply
S	MP5614	2.5	5.5	1x 0.8A Boost for ELVDD; 1x 0.8A Buck-Boost for ELVSS; 1x 0.15A Boost for AVDD; 1x 0.3A Buck for DVDD	V_{ELVDD} : 4.6V to 5.2V Config (Default 4.6V); V_{ELVSS} : -1.4V to -10V Config (Default -5V); V_{AVDD} : 5V to 8V Config (Default 7V); V_{DVDD} : 0.8V to 1.5V Config (Default 1.2V)	ELVDD: 2.5A; ELVSS: 3A; AVDD: 1A; DVDD: 0.9A	One Wire; I ² C	CSP-42 (2.75x3)	AMOLED display power supply
S	MP3358	5 (Buck), 2.5 (Boost)	20 (Buck), 4.8 (Boost)	1x 3A/2A Buck/Boost for ELVDD; 3x 0.5A/2A/2.5A Buck-Boost for ELVSS	V_{ELVDD} : 2V to 5.5V Config (Default 4.6V); V_{ELVSS} : -1V to -16V Config (Default -4V)	Configurable	One Wire; I ² C	QFN-32 (4x4)	AMOLED display power supply
N	MP5613	2.7	12	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Positive Charge Pump for V_{GH} ; 1x 0.05A Negative Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{DDN} : -16.6V to -0.7V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : -13.21V to +19.8V Configurable	V_{DDP} : 2.5A V_{DDN} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply
N	MPQ5613A-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : 0V to 19.8V Configurable	V_{DDP} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 1ms V_{GH}/V_{GL} UVP time
N	MPQ5613B-AEC1	2.7	5.7	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 9V Configurable; V_{DDN} : -10.3V to -0.7V Configurable; V_{GH} : 5V to 32V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : -5V to +9.67V Configurable	V_{DDP} : 1.8A V_{DDN} : 1.8A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 1ms V_{GH}/V_{GL} UVP time

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Regulator Blocks	Output Voltage (V)	Current Limit (Typ) (A)	Interface	Package	Notes
N	MPQ5613-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{DDN} : -16.6V to -0.7V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : -13.21V to +19.8V Configurable	V_{DDP} : 2.5A V_{DDN} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 1ms V_{GH}/V_{GL} UVP time
N	MPQ5613C-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{DDN} : -16.6V to -0.7V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable	V_{DDP} : 2.5A V_{DDN} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 48ms V_{GH}/V_{GL} UVP time, no V_{COM}
N	MPQ5613D-AEC1	2.7	12	1x Boost for V_{DDP} ; 1x Buck-Boost for V_{DDN} ; 1x 0.05A Pos Charge Pump for V_{GH} ; 1x 0.05A Neg Charge Pump for V_{GL} ; 1x 0.025A V_{COM} Buffer	V_{DDP} : 2.7V to 21.9V Configurable; V_{DDN} : -16.6V to -0.7V Configurable; V_{GH} : 5V to 35V Configurable; V_{GL} : -15.9V to 0V Configurable; V_{COM} : -13.21V to +19.8V Configurable	V_{DDP} : 2.5A V_{DDN} : 2.5A	I ² C (1x OTP)	QFN-28 (4x5)	LCD bias power supply, 48ms V_{GH}/V_{GL} UVP time

LED Photo Flash Drivers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	I_{OUT} (Max) (A)	f_{SW} (MHz)	Type	Package	Notes
MP3214	2.7	5.5	-	1	0.5	1.35	Charge Pump	QFN-16 (3x3)	Charge pump
MP3331-C09W	2.7	5.2	-	1	2	1/2/3/4	Boost	WLCSP-9 (1.7x1.7)	2A boost, I ² C, synchronous rectification, output disconnect
MP3331-C09T	2.7	5.5	-	1	2	1/2/3/4	Boost	WLCSP-9 (1.7x1.7)	2A boost, I ² C, synchronous rectification, output disconnect
MP3336	2.7	5.5	5.5	2	4	1/2/3/4	Boost	WLCSP-20 (1.6x2)	2A/ch, I ² C interface
MP3336A	2.7	5.5	5.5	2	4	1/2/3/4	Boost	WLCSP-20 (1.6x2)	2A/ch, I ² C interface, NFC application

Digital Controllers & Processors

	Part Number	# of Channels	MCLK	Supply Scaling	Input Format	Max Sample Rate (kHz)	# of Bits	# of PWM Outputs	Control Interface	Package
N	AX5688C	2	Ext.	-	1x I ² S, TDM	768	32	4	I ² C, SPI	QFN-64 (9x9)
N	AX5689C	4	Ext.	-	1x I ² S, TDM	768	32	8	I ² C, SPI	QFN-64 (9x9)
P	AX6010	4	Int.	✓	2x I ² S, TDM	768	32	8	I ² C, SPI	QFN-64 (9x9)

DrGaN Power Stages

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Half-Bridges	I _{OUT} (Max) (A)	Control Interface	Package	Notes
S	MPD21208H0GPC-10055	0	80	1	29	PWM	LGA-30 (5x6.5)	SolidGaN™ with integrated gate driver

Analog Input

Mono

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	P _{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Package	Notes
	MP1720	2.5	5.5	2.7	90	0.11 @ 1W	60	QFN-10 (3x3), MSOP-10E	BTL, low EMI, high efficiency, flexible switching frequency setting
	MP7731	9.5	18	30	90	0.1 @ 1W	60	TSSOP-20F	BTL audio amplifier
	MPQ7731	9.5	18	30	90	0.1 @ 1W	60	TSSOP-20F	BTL audio amplifier, industrial grade
	MP7741	9.5	36	10	94	0.02 @ 1W	58	QFN-10 (3x3)	Single-ended amplifier
	MP7740	9.5	36	15	90	0.018 @ 1W	60	SOIC-8	Single-ended amplifier
	MP7747	9.5	36	20	91	0.02 @ 1W	59	QFN-10 (3x3)	Single-ended amplifier

Stereo

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	P _{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Package	Notes
	MP7705	9.5	12	2.5 (2x), 5 (2x)	95	0.06 @ 1W	60	TSSOP-20F	Single-ended amplifier
	MP7720	9.5	24	20	93	0.04 @ 1W	60	SOIC-8, PDIP-8	Single-ended amplifier
	MP7722	9.5	24	20 (2x)	93	0.06 @ 1W	60	TSSOP-20F	Single-ended amplifier
	MP7748S	9.5	36	30 (2x)	94	0.02 @ 1W	59	TSSOP-28EP	2x 30W stereo single-ended or 1x 60W mono BTL amplifier
	MP7751	5	26	20 (2x)	92	0.06 @ 1W	60	TSSOP-28EP	BTL amplifier, fixed frequency
	MP7752	5	18	15 (2x)	90	0.06 @ 1W	60	TSSOP-28EP	BTL amplifier, fixed frequency, inductorless
	MP7758	5	18	15 (2x)	90	0.06 @ 1W	60	TSSOP-28EP	BTL amplifier, fixed frequency, inductorless, low idle with zero analog inputs
	MP7770	9.5	36	45 (2x)	95	0.03 @ 1W	60	TSSOP-28F	2x 45W stereo single-ended or 1x 90W mono BTL amplifier, 8.5A peak

PWM Input

Part Number	V_{IN} (Min) (V)		V_{IN} (Max) (V)		# of Half-Bridges	I_{OUT} (Max) (A)	Control Interface	Package	Notes
MP8040	7.5	24	1	9	PWM	SOIC-8EP	Half-bridge driver		
MP8046	7.5	28	2	5	PWM	TSSOP-20F	Full-bridge driver		
MP8049S	5	26	4	5.5	PWM	QFN-40 (5x5)	Dual full-bridge driver		
MPQ8039-AEC1	7.5	24	1	9	PWM	SOIC-8EP	Half-bridge driver, AEC-Q100 qualified		

Brushed DC Motors/Solenoid Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	$R_{DS(ON)}$ (HS + LS) (m Ω)	Control Interface	Package	Notes
	MP6610	4	55	1	3	100 + 120	EN/IN	TSOT23-8, SOIC-8	Half-bridge
	MP8040	7.5	24	1	9	100	PWM	SOIC-8EP	Half-bridge
	MP1930	9	18	1	10	11	HS/LS	QFN-26 (7x7)	Half-bridge, 18V to 75V V_{IN} for MOSFETs
S	MP6592	4.5	22	1	12	18 + 7.5	PWM	TQFN-13 (3x3)	Half-bridge
	MP6513L	2.5	5.5	2	0.6	500 + 500	IN1/IN2	TSOT23-6	Low-power H-bridge
	MP6513	2.5	21	2	0.8	500 + 500	IN1/IN2	TSOT23-6	Simple H-bridge
	MP6550	1.8	22	2	2	120 + 120	IN1/IN2	QFN-12 (2x2)	H-bridge, input logic voltage (V_{IL_MAX} : 0.4V, V_{IH_MIN} : 1.6V)
N	MP6550A	1.8	22	2	2	120 + 120	IN1/IN2	QFN-12 (2x2)	H-bridge, input logic voltage (V_{IL_MAX} : 0.8V, V_{IH_MIN} : 1.29V)
	MP6614	5	35	2	2	280 + 220	IN1/IN2	SOIC-8EP	H-bridge
	MP6515	5.4	35	2	2.8	250 + 250	PHASE/EN	QFN-20 (3x4), TSSOP-16EP	H-bridge motor driver
	MP6516	5.4	35	2	2.8	250 + 250	EN/IN	TSSOP-16EP	Dual half-bridge driver
	MP6522	5.4	35	2	3.2	250 + 250	IN1/IN2	QFN-24 (5x5)	Simple H-bridge motor driver
	MP8046	7.5	28	2	5	165	PWM	TSSOP-20F	Full-bridge driver
	MP6519	2.5	28	2	5	65 + 65	PWM	QFN-19 (3x3)	H-bridge current regulator, 64kHz internal clock frequency
	MP6519A	2.5	28	2	5	65 + 65	PWM	QFN-19 (3x3)	H-bridge current regulator, 32kHz internal clock frequency
	MP6551	2.5	14	2	5	15 + 12	EN/IN	QFN-14 (2.5x3)	Dual half-bridge driver
	MP6619	5.4	28	2	5	65 + 65	IN1/IN2	QFN-19 (3x3)	H-bridge
	MP6619L	2.5	28	2	5	65 + 65	IN1/IN2	QFN-19 (3x3)	H-bridge with external VCC and OCP_SET pin
	MP6613	4.5	45	2	5	75 + 75	Prog	QFN-28 (4x5), TSSOP-28EP	Simple H-bridge with three prog. control modes
	MP6612	4	40	2	5	70 + 45	IN1/IN2	TSSOP-20EP	H-bridge with current sense
	MP6612D	4	40	2	5	70 + 45	ENBL/DIR	TSSOP-20EP	H-bridge with current sense
S	MP6611	2.7	32	2	7	20 + 20	SPI	QFN-20 (4x4)	H-bridge with prog. SR
S	MP6611B	2.7	32	2	15	20 + 20	SPI	QFN-20 (4x4)	H-bridge with prog. SR
S	MP6611H-B	2.7	32	2	15	20 + 20	Prog	QFN-20 (4x4)	H-bridge with 3 configurable input logics and prog. SR
	MP6615	4.75	40	2	8	11 + 11	Prog	TQFN-26 (6x6)	H-bridge with 3 configurable input logics
	MP6523	7	28	3	0.9	1100	SPI	QFN-24 (4x4)	Motor driver with serial input control
	MP6507	2.7	15	4	0.7	500 + 500	IN1/IN2	TSSOP-16EP, QFN-16 (3x3), QFN-16 (4x4)	Dual H-bridges
	MP6508	2.7	18	4	1.2	250 + 250	IN1/IN2	TSSOP-16EP, QFN-16 (4x4)	Dual H-bridges
	MP6508A	2.7	18	4	1.2	250 + 250	IN1/IN2	QFN-16 (3x3)	Dual H-bridges
	MP6604A	4.5	45	4	2.5	150 + 150	EN/IN	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver
	MP6604B	4.5	45	4	2.5	150 + 150	PHASE/EN	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver
	MP6604C	4.5	45	4	2.5	150 + 150	HS/LS	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver
	MP8049S	5	26	4	5.5	140	PWM	QFN-40 (5x5)	Dual full-bridge driver
	MP6603	8	55	4	5	65 + 50	PWM	QFN-25 (4x5)	Dual full-bridge driver, selectable input interface
	MP6526	7	28	6	0.9	1100	SPI	SOIC-28, QFN-24 (4x4), QFN-24 (5x5)	Serial input control

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Half-Bridges	I _{OUT} (Max) (A)	R _{DS(ON)} (HS + LS) (mΩ)	Control Interface	Package	Notes
	MP6527	5.5	40	10	0.8	1300	SPI	TSSOP-28EP	Serial input control
	MPQ6610-AEC1	4	55	1	3	100 + 120	EN/IN	TSOT23-8, SOIC-8	Half-bridge, AEC-Q100 qualified
	MPQ6614-AEC1	5	35	2	1.5	280 + 220	IN1/IN2	QFN-8 (2x3)	H-bridge DC motor driver, AEC-Q100 qualified
	MPQ6519-AEC1	3	28	2	5	65 + 65	PWM	QFN-19 (4x4)	H-bridge current regulator, AEC-Q100 qualified
	MPQ6619-AEC1	2.7	28	2	5	65 + 65	IN1/IN2	QFN-19 (4x4)	H-bridge, AEC-Q100 qualified
	MPQ6612A-AEC1	4	40	2	5	63 + 40	IN1/IN2	QFN-18 (3x4)	H-bridge with current sense, AEC-Q100 qualified
	MPQ6612A-D-AEC1	4	40	2	5	63 + 40	ENBL/DIR	QFN-18 (3x4)	H-bridge with current sense, AEC-Q100 qualified
S	MPQ6611-AEC1	2.7	32	2	7	20 + 20	SPI	QFN-20 (4x4)	H-bridge with prog. slew rate, AEC-Q100 qualified
S	MPQ6611B-AEC1	2.7	32	2	15	20 + 20	SPI	QFN-20 (4x4)	H-bridge with prog. slew rate, AEC-Q100 qualified
S	MPQ6611H-B-AEC1	2.7	32	2	15	20 + 20	Prog	QFN-20 (4x4)	H-bridge with 3 configurable input logics and prog. slew rate, AEC-Q100 qualified
	MPQ6615-AEC1	4.75	40	2	8	11 + 11	Prog	TQFN-26 (6x6)	H-bridge with 3 configurable input logics, AEC-Q100 qualified
	MPQ6523-AEC1	7	28	3	0.9	1100	SPI	QFN-24 (4x4)	Serial input control, AEC-Q100 qualified
	MPQ6524-AEC1	7	28	4	0.9	1100	SPI	QFN-24 (4x4)	Serial input control, AEC-Q100 qualified
	MPQ6526-AEC1	7	28	6	0.9	1100	SPI	QFN-24 (4x4), QFN-24 (5x5)	Serial input control, AEC-Q100 qualified
	MPQ6626-AEC1	5.5	40	6	0.8	1300	SPI	TSSOP-28EP	Serial input control, AEC-Q100 qualified
	MPQ6628-AEC1	5.5	40	8	0.8	1300	SPI	TSSOP-28EP	Serial input control, AEC-Q100 qualified
	MPQ6527-AEC1	5.5	40	10	0.8	1300	SPI	TSSOP-28EP	Serial input control, AEC-Q100 qualified

Pre-Drivers

	Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	V _{SW} (Max) (V)	# of Half-Bridges	I _{SWK} / I _{SOURCE} (A)	Control Interface	Package	Notes
N	MP6590A	7.5	80	80	-	1	ENBL/ON	QFN-11 (3x4)	High-side MOSFET driver
	MP1921A	9	18	100	1	2.5/1.5	INH/INL	SOIC-8EP, QFN-8 (3x3), QFN-9 (3x3), QFN-10 (4x4)	Half-bridge gate driver
	MP1921B	9	18	100	1	2.5/1.5	INH/INL	QFN-10 (3x3)	Half-bridge gate driver
	MP1924A	8	15	100	1	4.5/3	INH/INL	QFN-10 (4x4), SOIC-8, SOIC-8E	Half-bridge gate driver
	MP1925	8	15	100	1	4.5/3	INH/INL	QFN-8 (4x4)	Half-bridge gate driver
	MP1922	5	15	100	1	4/3	INH/INL	QFN-22 (4x5)	Half-bridge pre-driver, current-sense amplifier, slew rate control
	MP1923	5	17	100	1	8/7	INH/INL	QFN-8 (4x4), QFN-10 (4x4), SOIC-8	High-frequency half-bridge gate driver
	MP6528	5	60	60	2	1/0.8	EN/PWM	QFN-28 (4x4)	H-bridge pre-driver
	MP6530	5	60	60	3	1/0.8	EN/PWM	QFN-28 (4x4), TSSOP-28EP	3-phase pre-driver
	MP6531A	5	60	60	3	1/0.8	HS/LS	QFN-28 (4x4), TSSOP-28EP	3-phase pre-driver
	MP6532	5	60	60	3	1/0.8	PWM/DIR, 3 Hall Inputs	QFN-28 (4x4), TSSOP-28EP	3-phase pre-driver with commutation logic
	MP6534	5	55	55	3	1/0.8	EN/PWM	QFN-40 (5x5)	3-phase pre-driver with buck regulator
	MP6535	5	55	55	3	1/0.8	PWM/DIR, 3 Hall Inputs	QFN-40 (5x5)	3-phase pre-driver with commutation logic and buck regulator
S	MP6633A	5	50	-	3	1.1/0.7	HS/LS	QFN-34 (4x5)	3-phase pre-driver with voltage regulator and single-channel sense amplifier
S	MP6633B	5	50	-	3	1.1/0.7	HS/LS	QFN-48 (6x6)	3-phase pre-driver with voltage regulator and 3-channel sense amplifier
	MP6537	8	100	100	3	1/0.8	EN/PWM	QFN-28 (4x5)	3-phase pre-driver
	MP6538	8	100	100	3	1/0.8	PWM/DIR, 3 Hall Inputs	QFN-28 (4x5)	3-phase pre-driver with Hall commutation logic
	MP6539	8	100	100	3	1/0.8	HS/LS	QFN-28 (4x5), TSSOP-28EP	3-phase pre-driver with internal LDO, prog. OCP
	MP6539B	8.5	14	100	3	1/0.8	HS/LS	QFN-28 (4x5), TSSOP-28EP	3-phase pre-driver
	MP6539C	8.5	14	80	3	1/0.8	HS/LS	QFN-28 (4x5)	3-phase pre-driver
N	MPQ6590A-AEC1	7.5	80	80	-	1	ENBL/ON	QFN-11 (3x4)	High-side MOSFET driver
	MPQ1922-AEC1	5	15	100	1	4/3	INH/INL	QFN-22 (4x5)	Half-bridge pre-driver, current-sense amplifier, slew rate control
	MPQ1923-AEC1	5	17	100	1	8/7	INH/INL	QFN-8 (4x4), QFN-10 (4x4)	High-frequency half-bridge gate driver
	MPQ6528-AEC1	5	60	60	2	1/0.8	EN/PWM	QFN-28 (4x5)	H-bridge pre-driver with PWM/EN inputs, AEC-Q100 qualified
	MPQ6641-AEC1	6	40	-	2	1/0.8	EN/IN, SPI	QFN-32 (5x5)	H-bridge pre-driver with SPI and internal current-sense amp, AEC-Q100 qualified
	MPQ6530-AEC1	5	60	60	3	1/0.8	EN/PWM	QFN-28 (4x5)	3-phase pre-driver, AEC-Q100 qualified

	Part Number	Supply Voltage (Min) (V)		Supply Voltage (Max) (V)		V _{SW} (Max) (V)	# of Half-Bridges	I _{SINK} / I _{SOURCE} (A)	Control Interface	Package	Notes
	MPQ6531-AEC1	5	60	60	3	1/0.8	HS/LS		QFN-28 (4x5)	3-phase pre-driver, AEC-Q100 qualified	
	MPQ6532-AEC1	5	60	60	3	1/0.8	PWM/DIR, 3 Hall Inputs		QFN-28 (4x5)	3-phase pre-driver with commutation logic, AEC-Q100 qualified	
	MPQ6533-AEC1	6	40	-	3	1/0.8	EN/IN, SPI		QFN-32 (5x5)	3-channel pre-driver with SPI interface and internal current-sense amp, AEC-Q100 qualified	
S	MPQ6633A-AEC1	5	50	-	3	1.1/0.7	HS/LS		QFN-34 (4x5)	3-phase pre-driver with voltage regulator and single-channel sense amplifier	
S	MPQ6633B-AEC1	5	50	-	3	1.1/0.7	HS/LS		QFN-48 (6x6)	3-phase pre-driver with voltage regulator and 3-channel sense amplifier	
N	MPQ6539-AEC1	8	80	80	3	1/0.8	HS/LS		QFN-28 (4x5)	3-phase pre-driver with internal LDO, prog. OCP, AEC-Q100 qualified	
S	MPQ6620A-AEC1	6	40	-	8	0.064/0.064	SPI		QFN-48 (7x7)	8-channel pre-driver with 2x current-sense amplifiers, AEC-Q100 qualified	
S	MPQ6620B-AEC1	6	40	-	8	0.064/0.064	SPI		QFN-40 (6x6)	8-channel pre-driver, AEC-Q100 qualified	

Stepper Motor Drivers

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	R _{DS(ON)} (HS + LS) (mΩ)	Step Mode	Control Interface	Package	Notes
	MP6506	2.7	15	0.5	500 + 500	1, 1/2	Parallel	QFN-16 (3x3)	Bipolar stepper
	MP6507	2.7	15	0.7	500 + 500	1, 1/2	Parallel	TSSOP-16EP, QFN-16 (3x3), QFN-16 (4x4), TSSOP-16	Bipolar stepper
	MP6508	2.7	18	1.2	250 + 250	1, 1/2	Parallel	TSSOP-16EP, QFN-16 (4x4)	Bipolar stepper
	MP6508A	2.7	18	1.2	250 + 250	1, 1/2	Parallel	QFN-16 (3x3)	Bipolar stepper
	MP6509	2.7	18	1.2	250 + 250	1, 1/2	Parallel	TSSOP-20EP	Bipolar stepper, current attenuation
	MP6518	8	35	1.5	300 + 300	1, 1/2, 1/4, 1/8	Indexer	TSSOP-28EP	Bipolar stepper, microstepping
	MP6520	8	32	1.5	300 + 300	1, 1/2, 1/4, 1/8	Indexer	QFN-28 (4x5)	Stepper, integrated MOSFETs
	MP6600	4.5	35	1.5	195 + 170	1, 1/2, 1/4, 1/8	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense
	MP6600L	4.5	35	1.5	195 + 170	1, 1/2, 1/4, 1/8	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense, latch-off function
	MP6504	8	32	2	220 + 220	1, 1/2, 1/4, 1/8	Indexer	QFN-28 (4x5)	Bipolar stepper, microstepping
	MP6501A	8	35	2.5	220 + 220	1, 1/2, 1/4, 1/8	Indexer	TSSOP-28EP	Bipolar stepper, microstepping
	MP6601	4.5	35	2.5	170 + 150	1, 1/2, 1/4	Parallel	QFN-24 (5x5), TSSOP-28EP	Stepper, internal current sense
	MP6500	4.5	35	2.5	195 + 170	1, 1/2, 1/4, 1/8	Indexer	QFN-24 (5x5), TSSOP-28	Bipolar stepper, microstepping, internal current sense
	MP6500A	4.5	35	2.5	195 + 170	1, 1/2, 1/4, 1/8	Indexer	TSSOP-28EP, QFN-24 (5x5)	Bipolar stepper, microstepping, internal current sense, programmable voltage

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	R _{DS(ON)} (HS + LS) (mΩ)	Step Mode	Control Interface	Package	Notes
	MP6500L	4.5	35	2.5	195 + 170	1, 1/2, 1/4, 1/8	Indexer	QFN-24 (5x5)	Bipolar stepper, microstepping, internal current sense, latch-off function
	MP6602	4.5	35	4	60 + 30	1, 1/2, 1/4, 1/8, 1/16, 1/32	SPI, Indexer	QFN-25 (4x5)	Stepper, stall detection
	MP6603	8	55	5	65 + 50	1, 1/2, 1/4, 1/8	Parallel, Indexer	QFN-25 (4x5)	Dual full-bridge driver, selectable input interface
	MP6604A	4.5	45	2.5	150 + 150	-	IN/EN	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver
	MP6604B	4.5	45	2.5	150 + 150	-	PHASE/EN	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver
	MP6604C	4.5	45	2.5	150 + 150	-	HS/LS	QFN-28 (4x5), TSSOP-28EP	Simple dual H-bridge driver
	MP6605C	4.5	60	1.5	LS: 350	-	I ² C	QFN-24 (4x4)	4-channel low-side driver
	MP6605D	4.5	60	1.5	LS: 350	-	Parallel	QFN-24 (4x4)	4-channel low-side driver
	MP6605E	4.5	60	1.5	LS: 350	-	SPI	QFN-24 (4x4)	4-channel low-side driver
	MP6606	4.5	60	0.75	LS: 700	-	SPI	TSSOP-20EP	8-channel low-side driver
N	MPQ6605D-AEC1	4.5	52	1.5	LS: 350	-	Parallel	QFN-24 (4x4)	4-channel low-side driver, AEC-Q100 qualified
S	MPQ6606-AEC1	4.5	52	0.75	LS: 700	-	SPI	TSSOP-20EP	8-channel low-side driver, AEC-Q100 qualified
N	MPQ6609-AEC1	4	32	1	350 + 230	1, 1/2, 1/4, 1/8, 1/16, 1/32	SPI	QFN-18 (3x4)	Bipolar stepper, internal current sense, rotor stall detection, BEMF measurement, AEC-Q100 qualified
	MPQ6600L-AEC1	4.5	35	1.5	195 + 170	1, 1/2, 1/4, 1/8	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense, latch-off function, AEC-Q100 qualified
S	MPQ6603-AEC1	8	55	5	65 + 50	1, 1/2, 1/4, 1/8	Parallel, Indexer	QFN-25 (4.5x5)	Dual full-bridge driver, selectable input interface, AEC-Q100 qualified

Integrated BLDC Motor Drivers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	$R_{DS(ON)}$ (HS + LS) (mΩ)	Control Interface	Package	Notes
MP6543C	3	22	3	1.2	110 + 110	ENBL/PWM	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifiers
MP6543	3	12	3	2	110 + 110	ENBL/PWM	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifiers
MP6543A	3	12	3	2	110 + 110	HS/LS	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifiers
MP6543B	3	12	3	2	110 + 110	PWM/DIR, 3 Hall Inputs	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifiers
MP6543H	3	22	3	2	110 + 110	ENBL/PWM	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifiers
MP6543H-A	3	22	3	2	110 + 110	HS/LS	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifiers
MP6543H-B	3	22	3	2	110 + 110	PWM/DIR, 3 Hall Inputs	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifiers
MP6545	4.5	45	3	2.5	150 + 150	HS/LS	QFN-28 (4x5), TSSOP-28EP	3-channel power stage
MP6545A	4.5	45	3	2.5	150 + 150	HS/LS	QFN-28 (4x5), TSSOP-28EP	3-channel power stage, separate GND for A/B/C phases
MP6546	3.5	22	3	3	150 + 150	I ² C Hall, Angle Sensor Inputs	QFN-20 (3x4)	3-phase power stage, 1MHz I ² C Interface
MP6536	5	26	3	5.5	140 + 140	ENBL/PWM	QFN-40 (5x5)	3-channel half-bridge driver
MP6540	5.5	35	3	3	50 + 50	ENBL/PWM	QFN-26 (5x5)	3-phase power stage with 3 current-sense amplifiers
MP6540A	5.5	35	3	3	50 + 50	HS/LS	QFN-26 (5x5)	3-phase power stage with 3 current-sense amplifiers
MP6540H	5.5	50	3	5	45 + 45	ENBL/PWM	QFN-26 (5x5)	3-phase power stage with 3 current-sense amplifiers
MP6540HA	5.5	50	3	5	45 + 45	HS/LS	QFN-26 (5x5)	3-phase power stage with 3 current-sense amplifiers
MP6541	4.75	40	3	8	15 + 15	ENBL/PWM	TQFN-26 (6x6)	3-phase power stage with 3 current-sense amplifiers
MP6541A	4.75	40	3	8	15 + 15	HS/LS	TQFN-26 (6x6)	3-phase power stage with 3 current-sense amplifiers
N MP6549	3	22	3	10	10 + 7	ENBL/PWM, HS/LS	QFN-26 (4x4)	3-phase power stage, parallel mode for high-current single half-bridge
S MPQ6547A-AEC1	4	32	3	3	50 + 40	ENBL/PWM	QFN-18 (3x4)	3-phase power stage
MPQ6541-AEC1	4.75	40	3	8	15 + 15	ENBL/PWM	TQFN-26 (6x6)	3-phase power stage with 3 current-sense amplifiers, AEC-Q100 qualified
MPQ6541A-AEC1	4.75	40	3	8	15 + 15	HS/LS	TQFN-26 (6x6)	3-phase power stage with 3 current-sense amplifiers, AEC-Q100 qualified

Fan Drivers

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Half-Bridges	I _{OUT} (Max) (A)	R _{DS(ON)} (HS + LS) (mΩ)	Hall Sensor	Package	Notes
	MP6505	4.5	16	2	0.4	600	External	TSSOP-16EP	Single-phase BLDC
	MP6510	4.5	16	2	1.2	600	External	TSSOP-16EP	Single-phase BLDC
	MP6517B	3.3	16	2	2	850	Integrated	TSOT23-6-L, TSOT23-6-R, TSOT23-6-SL, TSOT23-6-RSL	Single-phase BLDC, prog. speed curve, open-loop control
	MP6650	3.3	18	2	2	850	Integrated	TSOT23-6-L, TSOT23-6-R, TSOT23-6-SL, TSOT23-6-RSL	Single-phase BLDC, open-loop speed control
	MP9517	3.3	18	2	2	850	Integrated	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, open-loop speed control
	MP9518	3.3	18	2	1.2	850	Integrated	TSOT23-6, TSOT23-6-SL	Single-phase BLDC, open-loop speed control
	MP6652	3	18	2	1.3	850	Integrated	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, prog. speed curve, open-loop control
	MP6652A	3	18	2	1	850	Integrated	TSOT23-6-L, TSOT23-6-SL	ESD enhanced
N	MP6655	3.5	18	2	2.5	250	Integrated	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, prog. speed curve, open-/closed-loop control
	MP6653A	3.5	35	2	1.2	960	Integrated	TSOT23-6-L, TSOT23-6-SL, TQFN-6 (2x3)	Single-phase BLDC, prog. speed curve, open-/closed-loop control
N	MP6653B	3.5	35	2	1.2	960	Integrated	TSOT23-6-SL	Adds 2/3 FG option for 6-pole fan application based on the MP6653A
N	MP6616B	3.3	18	2	4	100	Integrated	QFN-10 (2x3)	ESD enhanced
N	MP6617	3.3	18	2	6	64	Integrated	QFN-10 (2.5x3)	Single-phase BLDC, prog. speed curve, open-/closed-loop control
N	MP6658	4.5	32	2	2.7	180	Integrated, External	QFN-12 (3x3)	Single-phase BLDC, prog. speed curve, open-/closed-loop control
	MP6630	2	5.5	3	1.4	800	Integrated	UTQFN-8 (2x3)	3-phase BLDC, prog. speed curve, open-loop control
	MP6630H	2	16	3	1.4	800	Integrated	UTQFN-8 (2x3)	3-phase BLDC, prog. speed curve, open-loop control
S	MP6630E	2	16	3	1.4	800	Integrated	UTQFN-8 (2x3)	ESD enhanced based on the MP6630H
	MP6631	3.6	24	3	3	160	External	QFN-26 (3x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control
	MP6631H	3.6	35	3	3	160	External	QFN-26 (3x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control
	MP6631A	3.6	35	3	3	160	External	QFN-26 (3x4)	FG output function at the align stage, based on the MP6631H
	MP6631B	3.6	35	3	3	160	External	QFN-26 (3x4)	Minimum soft-start time less than 0.5s, based on the MP6631H
	MP6637	2.5	5.5	3	1.3	350	Sensorless	SOT583	3-phase BLDC, open-loop speed control
	MP6637A	2.5	5.5	3	1.3	350	Sensorless	SOT583	FG/RD pin configurable based on the MP6637
N	MP6638	2.5	15	3	1.7	300	Sensorless	UTQFN-8 (2x2.5)	3-phase BLDC, open-loop speed control
N	MP6636	3.3	18	3	4	190	Sensorless	SOIC-8EP, TQFN-10 (4x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control
N	MP6634	4.5	35	3	2	500	Sensorless	TQFN-12 (3x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control

	Part Number	V_{in} (Min) (V)	V_{in} (Max) (V)	# of Half-Bridges	I_{out} (Max) (A)	$R_{DS(on)}$ (HS + LS) (m Ω)	Hall Sensor	Package	Notes
S	MP6642	4	35	3	5	100	Sensorless	TQFN-17 (3x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control
	MP6632A	6	50	3	External FETs	External FETs	External	QFN-32 (4x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control, trapezoid drive
	MP6632	6	50	3	External FETs	External FETs	External	QFN-32 (4x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control, sine drive
N	MP6635	6	35	3	External FETs	External FETs	Sensorless	QFN-28 (5x5)	3-phase BLDC, prog. speed curve, open-/closed-loop control
	MPQ6517B-AEC1	3.3	16	2	2	850	Integrated	TSOT23-6, TSOT23-6-SL	Single-phase BLDC, prog. speed curve, open-loop control, AEC-Q100 qualified
	MPQ6653A-AEC1	3.5	35	2	1.2	960	Integrated	TSOT23-6, TSOT23-6-SL, TQFN-6 (2x3)	Single-phase BLDC, prog. speed curve, open-/closed-loop control, AEC-Q100 qualified
N	MPQ6653B-AEC1	3.5	35	2	1.2	960	Integrated	TSOT23-6-SL	Add 2/3 FG option for 6-pole fan application based on the MPQ6653A
S	MPQ6653C-AEC1	3.5	35	2	1.2	960	Integrated	TSOT23-6-L, TSOT23-6-SL, TQFN-6 (2x3)	Add brake option to shorten the stop time based on the MPQ6653A
	MPQ6631H-AEC1	3.6	35	3	3	160	External	TQFN-26 (3x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control, 1/3 Hall inputs, AEC-Q100 qualified
	MPQ6634-AEC1	4.5	35	3	2	500	Sensorless	TQFN-12 (3x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control, AEC-Q100 qualified
N	MPQ6632-AEC1	6	50	3	External FETs	External FETs	External	QFN-32 (4x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control, AEC-Q100 qualified
N	MPQ6635-AEC1	6	35	3	External FETs	External FETs	Sensorless	QFN-28 (5x5)	3-phase BLDC, prog. speed curve, open-/closed-loop control, AEC-Q100 qualified

Motor Controllers & Smart Drivers

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Core	RAM (KB)	Flash (KB)	Interface	Special Features	Grade	Package	Notes
	MP6570	3	3.6	-	-	-	SPI, I ² C, RS-485	Up to 14-Bit Angular Sensor; Up to 80kHz f _{SW} ¹ ; 10-Bit ADC with Prog Gain; Position/Speed/Torque Operation Modes; Up to 32 Prog Target Addresses	Catalog	QFN-32 (4x4)	3-phase BLDC controller with high-accuracy angular sensor
S	MP6572	3	3.6	-	-	-	SPI, I ² C, RS-485	Up to 14-Bit Angular Sensor; Up to 80kHz f _{SW} ¹ ; 10-Bit ADC with Prog Gain; Position/Speed/Torque Operation Modes; Up to 32 Prog Target Addresses	Catalog	QFN-32 (4x4)	Improved functionality based on the MP6570
S	MPF56400	1.8	3.6	Cortex-M4, 144MHz PLL	144	512	7x USART, 3x SPI, 1x QSPI, 4x I ² C, 2x CAN	4x 12 Bits, 4.7Mps ADC; 4x RRIO OPA; 7x CMP; 2x DAC, 12 Bits, 1Mps; Up to 80 GPIOs; 2x DMA; 1x RTC; 2x 16-Bit Motor Timer with Up to 6.9ns Resolution; 4x 16-Bit Advanced Timer	Catalog	BGA-64 (5x5), TQFN-48 (5x5), QFN-48 (6x6), LQFP-48 (7x7)	Smart drive controller

MagAlpha™ Magnetic Position Sensors

Part Number	Resolution	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Cutoff Frequency (Hz)	Latency at Constant Speed (µs)	Temperature Range (°C)	Package	Notes
MA102	12-Bit	SPI, UVW	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +125	QFN-16 (3x3)	Motor commutation angle sensor, UVW multi-pole pair, differential outputs
MA302	12-Bit	SPI, UVW, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +125	QFN-16 (3x3)	Motor commutation angle sensor, 12-bit SPI output, ABZ & UVW incremental outputs
MA310	12-Bit	SPI, UVW, ABZ	3 to 3.6	11.7	15+ (No Upper Limit)	93	8	-40 to +125	QFN-16 (3x3)	Motor commutation angle sensor, 12-bit SPI output, low magnetic field
MA330	10-Bit to 14-Bit	SPI, UVW, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	23 to 6k	8	-40 to +125	QFN-16 (3x3)	Motor commutation angle sensor, up to 14-bit SPI output, programmable filter
MA702	12-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +125	QFN-16 (3x3)	12-bit SPI output, ABZ incremental & PWM outputs
MA704	10-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	2970	8	-40 to +125	QFN-16 (3x3)	12-bit SPI output, high BW, ABZ incremental & PWM outputs
MA710	12-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	15+ (No Upper Limit)	93	8	-40 to +125	QFN-16 (3x3)	12-bit SPI output, low magnetic field, ABZ incremental & PWM outputs
MA730	14-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	40+ (No Upper Limit)	23	8	-40 to +125	QFN-16 (3x3)	14-bit SPI output, ABZ incremental & PWM outputs
MA732	10-Bit to 14-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	23 to 6k	8	-40 to +125	QFN-16 (3x3)	Prog. filter, ABZ incremental & PWM outputs
MA734	8-Bit to 12.5-Bit	SPI	3 to 3.6	11	30+ (No Upper Limit)	95, 380, 95k	3	-40 to +125	QFN-16 (3x3)	Prog. filter, low latency
MA735	9-Bit to 13-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	40+ (No Upper Limit)	23 to 6k	8	-40 to +125	UTQFN-14 (2x2)	Ultra-small footprint, prog. filter, ABZ incremental & PWM outputs
MA736	8-Bit to 12.5-Bit	SPI	3 to 3.6	11	30+ (No Upper Limit)	95, 380, 95k	3	-40 to +125	UTQFN-14 (2x2)	Ultra-small footprint, prog. filter, low latency
MA780	8-Bit to 12-Bit	SPI	3 to 3.6	50µA (512µs On Time)	30+ (No Upper Limit)	5 to 160k	4 to 4000	-40 to +125	QFN-16 (3x3)	Optimized for low-power, integrated wake-up and IRQ
MA782	8-Bit to 12-Bit	SPI	3 to 3.6	50µA (512µs On Time)	30+ (No Upper Limit)	5 to 160k	4 to 4000	-40 to +125	UTQFN-14 (2x2)	Micropower, ultra-small footprint, integrated wake-up and IRQ
MA800	8-Bit	SPI, SSI	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Optimized for HMI applications
MA820	8-Bit	SPI, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Optimized for HMI applications
MA850	8-Bit	SPI, PWM	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Optimized for HMI applications

	Part Number	±3σ Resolution	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Cutoff Frequency (Hz)	Latency at Constant Speed (μs)	Temperature Range (°C)	Package	Notes
	MAQ430	12-Bit	SPI, UVW, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +150	QFN-16 (3x3)	AEC-Q100, wettable flanks
	MAQ470	12-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	390	8	-40 to +150	QFN-16 (3x3)	AEC-Q100, wettable flanks
	MAQ473	10-Bit to 14-Bit	SPI, SSI, PWM, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	23 to 6k	8	-40 to +150	QFN-16 (3x3)	AEC-Q100, prog. filter, wettable flanks
	MAQ800	8-Bit	SPI, SSI	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Optimized for automotive HMI applications, SSI output, wettable flanks
	MAQ820	8-Bit	SPI, ABZ	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Optimized for automotive HMI applications, SSI output, wettable flanks
	MAQ850	8-Bit	SPI, PWM	3 to 3.6	11.7	30+ (No Upper Limit)	90	4000	-40 to +125	QFN-16 (3x3)	Optimized for automotive HMI applications, SSI output, wettable flanks
N	MA600A	12-Bit to 15-Bit	SPI, ABZ, PWM, UVW, SSI	3 to 3.6	7	20+ (No Upper Limit)	75 to 17k	0	-40 to +125	QFN-16 (3x3)	TMR front-end high accuracy and BW, 0.6° INL (<0.1° INL through user calibration w/ 32-word lookup table)
N	MAQ600A	12-Bit to 15-Bit	SPI, ABZ, PWM, UVW, SSI	3 to 3.6	7	20+ (No Upper Limit)	75 to 17k	0	-40 to +125	QFN-16 (3x3)	AEC-Q100, TMR front-end, high accuracy and BW, 0.6° INL (<0.1° INL through user calibration w/ 32-word lookup table)

MagDiff™ Magnetic Position Sensors with Stray Field Immunity

	Part Number	±3σ Resolution	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Cutoff Frequency (Hz)	Latency at Constant Speed (μs)	Temperature Range (°C)	Package	Notes
S	MA900	10-Bit to 14.5-Bit	SPI, SSI, I ² C, UVW, ABZ	3.3, 5	12	8+ (No Upper Limit)	12 to 100k	0	-40 to +125	QFN-16 (3x3)	Robust against parasitic stray fields exceeding 4kA/m DC, or 5mT
S	MA980	9-Bit to 13-Bit	SPI	3.3, 5	25μA (256μs On Time)	8+ (No Upper Limit)	5 to 160k	5 to 4100	-40 to +125	WLCSP (1.6x1.6)	Micropower, smallest footprint, robust against parasitic stray fields
S	MAQ79010	10-Bit to 14.5-Bit	SPI, SSI, I ² C, UVW, SENT, ABZ	3.3, 5	12	8+ (No Upper Limit)	12 to 100k	0	-40 to +150	QFN-16 (3x3)	AEC-Q100, ASIL-B compliant with functional safety, robust against parasitic stray fields exceeding 4kA/m DC, or 5mT, wettable flanks
P	MAQ79016	10-Bit to 14.5-Bit	SPI, SSI, I ² C, UVW, SENT, ABZ	Up to 26	12	8+ (No Upper Limit)	12 to 100k	0	-40 to +150	QFN-16 (3x3)	AEC-Q100, ASIL-B compliant with functional safety, 26V with reverse polarity protection, robust against parasitic stray fields >4kA/m DC, or 5mT
S	MAQ900	10-Bit to 14.5-Bit	SPI, SSI, I ² C, UVW, SENT, ABZ	3.3, 5	12	8+ (No Upper Limit)	12 to 100k	0	-40 to +150	QFN-16 (3x3)	AEC-Q100, robust against parasitic stray fields >4kA/m DC, or 5mT
S	MAQ980	9-Bit to 13-Bit	SPI	3.3, 5	25μA (256μs On Time)	8+ (No Upper Limit)	5 to 160k	0	-40 to +125	UTQFN (2x2)	AEC-Q100, micropower, smallest footprint, robust against parasitic stray fields >4kA/m DC, or 5mT
P	MAQ79020	12-Bit to 14.5-Bit	ABZ, PWM, SPI, I ² C, SSI, UVW	3.3, 5	12	8+ (No Upper Limit)	12 to 100k	0	-40 to +150	QFN-32 (5x5)	AEC-Q100, ASIL-D compliant w/ functional safety, robust against parasitic stray fields >4kA/m DC or 5mT, wettable flanks

MagVector™ 3D Magnetic Position Sensors

	Part Number	Data Length	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Conversion Time (μs)	Temperature Range (°C)	Package	Notes
	MV300	12-Bit	I ² C, SPI	3.3	10nA to 2.5	±50 or ±180	40	-40 to +125	TSOT23-6	Digital component output, selectable operating power modes
P	MV310	12-Bit	I ² C, SPI	3.3	25nA to 2.3	±125 or ±250	40	-40 to +125	TSOT23-6	Digital component output, selectable operating power modes and sensing axis
P	MVQ310	12-Bit	I ² C, SPI	3.3	25nA to 2.3	±125 or ±250	40	-40 to +150	TSOT23-6	AEC-Q100, digital component output, selectable operating power modes and sensing axis

Integrated Current Sensors

	Part Number	Current Range (A)	V _{CC} (V)	Over-Temp. Accuracy	Temperature Range (°C)	Isolation Voltage (V _{RMS})	Working Voltage (V _{RMS})	Working Voltage for Basic (V _{RMS})	Bandwidth (kHz)	Over-Current Detection for Reinforced Isolation (V _{RMS})	Voltage Reference	Primary Conductor Resistance (mΩ)	UL Certification	Package	Notes
	MCS1800	±12.5, ±25	3.3	3%	-40 to +125	1000	200	-	100	-	-	1.2	-	SOIC-8	Coreless, ratiometric analog output
	MCS1801	±12.5, ±25	5	3%	-40 to +125	1000	200	-	100	-	-	1.2	-	SOIC-8	Coreless, ratiometric analog output
	MCS1802	±5, ±10, ±20, ±30, ±40, ±50	3.3	2.5%	-40 to +125	2200	250	-	100	-	-	0.9	✓	SOIC-8	Coreless, ratiometric analog output
	MCS1803	±5, ±10, ±20, ±30, ±40, ±50	5	2.5%	-40 to +125	2200	250	-	100	-	-	0.9	✓	SOIC-8	Coreless, ratiometric analog output
	MCS1805	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	3000	500	-	100	✓	-	0.9	✓ + TUV	SOIC-8	Coreless, ratiometric analog output, immune to external magnetic field gradients
	MCS1806	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	3000	500	-	100	-	-	0.9	✓	SOIC-8	Coreless, ratiometric analog output
S	MCS1810	±10, ±20, ±30, ±40, ±50, ±65, ±80, ±100	3.3, 5	2%	-40 to +125	5000	1100	560	350	✓	✓	0.3	Planned	SOIC-10W	Coreless, zero current reference, low primary conductor resistance, bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1μs response time
S	MCS1812	±10, ±20, ±30, ±40, ±50, ±65, ±80, ±100	3.3, 5	2%	-40 to +125	5000	1100	560	350	✓	✓	0.45	Planned	SOIC-16W	Coreless, zero current reference, bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1μs response time
S	MCS1814	±10, ±20, ±30, ±40, ±50, ±65, ±80, ±100	3.3, 5	2%	-40 to +125	5000	1100	560	350	✓	✓	0.45	Planned	SOIC-16W	Coreless, zero current reference, bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1μs response time
	MCS1823	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	100	100	-	120	✓	-	0.6	✓	QFN-12 (3x3)	Coreless, bi- or unidirectional sensing, ratiometric or absolute analog output, immune to external magnetic field gradients
	MCS1826	±15.5, ±31	3.3 to 5	3%	-40 to +125	100	100	-	120	✓	-	0.6	✓	QFN-12 (3x3)	Coreless, bidirectional sensing, ratiometric analog output, immune to external magnetic field gradients
S	MCS1880	±50, ±100, ±150, ±200	3.3, 5	2%	-40 to +125	100	100	-	350	-	-	0.2	-	PSOF-7	Bi- or unidirectional sensing, 0.2mΩ primary conductor resistance, high precision, ratiometric or absolute analog output
P	MCS1809	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2%	-40 to +125	3000	550	-	350	✓	-	0.5	-	SOIC-8	Coreless, ratiometric analog output

	Part Number		Current Range (A)		V _{CC} (V)	Over-Temp. Accuracy	Temperature Range (°C)	Isolation Voltage (V _{RMS})	Working Voltage (V _{RMS})	Working Voltage for Basic (V _{RMS})		Working Voltage for Reinforced Isolation (V _{RMS})		Bandwidth (kHz)	Over-Current Detection (OCD)	Primary Conductor Resistance	UL Certification	Package	Notes
N	MCQ1805	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	3000	500	-	100	✓	-	0.9	✓ + TUV	SOIC-8	AEC-Q100, coreless, ratiometric analog output, immune to external magnetic field gradients				
	MCQ1806	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	3000	500	-	100	-	-	0.9	✓	SOIC-8	AEC-Q100, coreless, ratiometric analog output				
S	MCQ1810	±10, ±20, ±30, ±40, ±50, ±65, ±80, ±100	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	0.3	Planned	SOIC-10W	AEC-Q100, coreless, zero current reference, 0.3mΩ low primary conductor resistance, bi- or unidirectional sensing, ratiometric or absolute analog output, OCD with 1μs response time				
S	MCQ1812	±10, ±20, ±30, ±40, ±50, ±65, ±80	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	0.45	Planned	SOIC-16W	AEC-Q100, coreless, zero current reference, bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1μs response time				
S	MCQ1814	±5, ±10, ±20, ±30, ±40, ±50, ±65, ±80	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	0.45	Planned	SOIC-16W	AEC-Q100, coreless, zero current reference, bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1μs response time				
S	MCQ1823	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	100	100	-	120	✓	-	0.6	✓	QFN-12 (3x3)	AEC-Q100, coreless, bi- or unidirectional sensing, ratiometric or absolute analog output, immune to external magnetic field gradients				
	MCQ1880	±50, ±100, ±150, ±200	3.3, 5	2%	-40 to +150	100	100	-	350	-	-	0.2	-	PSOF-7	AEC-Q100, bi- or unidirectional sensing, 0.2mΩ primary conductor resistance, high precision, ratiometric or absolute analog output				
P	MCQ1809	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2%	-40 to +125	3000	550	-	350	✓	-	0.5	-	SOIC-8	AEC-Q100, coreless, ratiometric analog output				

Analog Switches

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	t_{ON} (ns)	t_{OFF} (ns)	$R_{DS(ON)}$ (Max) (Ω)	Package	Notes
MP2735	1.65	5.5	2	29	23	0.45	QFN-10 (1.4x1.8)	Low-voltage, dual SPDT
MP2736	1.65	5.5	2	29	23	0.45	QFN-10 (1.4x1.8)	Low-voltage, dual SPDT, EN function

Operational Amplifiers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	GBW (kHz)	I_o (Typ) (μA)	PSRR (dB)	Slew Rate (V/ μs)	Offset Voltage (mV)	Package	Notes
MP8102	1.8	5.5	200	7.5	80	0.1	1	TSOT23-5	Ultra-low power, 600kHz
MP8130	2.7	36	100	10	80	0.1	1	TSOT23-5	Ultra-low power, 200kHz, high-voltage
MP8110	2.5	40	-	12	97	-	0.4/1	SOIC-8, MSOP-8	High-side current sense

Voltage Reference

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	Initial Accuracy (%)	Operating Current (mA)	Z_{OUT} (Ω)	Package	Notes
MP8201	1.2	12	1.2 to 10	0.5	0.06 to 20	1	SOT23	Precision adj., shunt voltage regulator, 1V shunt reference

USB/Load Switches

Single-Channel

Part Number	V_{in} (Min) (V)	V_{in} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Package	Notes
MP62055	2.7	5.5	0.5	1.1	Active High	Over-Current, Active High	-	TSOT23-5	Small package, P2P with the TPS2051B
MP5075L	3	5.5	1	7	Active High	-	✓	SOT563 (1.6x1.6)	OCP, thermal protection, small package
MP62550 MP62551	2.5	5.5	1.5	1.7	Active Low, Active High	Over-Current, Active Low	-	TQFN-6 (2x2), TSOT23-6	Precision adj. current-limited power distribution switch, 88/100mΩ at 100mA, 1.5μA max I_{SD}
MP5073	0.5	5.5	2	2	Active High	-	✓	QFN-12 (2x2)	Prog. current limit, power good, slew rate control
MP5083	0.5	5.5	2	Prog	Active High	-	✓	QFN-12 (2x2)	5% current monitoring (from 0.6A to full load), power good, slew rate control
MP5075	3	5.5	2.4	7	Active High	-	✓	SOT563 (1.6x1.6)	OCP, thermal protection, small package
MP5077	0.5	5.5	7	13	Active High	-	✓	TQFN-12 (2x2)	Prog. current limit, slew rate control, fast-off protection
MP5087	0.5	5.5	7	7	Active High	-	✓	TQFN-12 (2x2)	5% current monitoring (from 1.5A to full load), power good, slew rate control, fast-off protection
MP5087A	0.5	5.5	7	7	Active High	-	✓	TQFN-12 (2x2)	Prog. current limit, slew rate control, fast-off protection
S MP5037A	3.15	22	7	20	Active High	-	✓	QFN-21 (3x3)	Prog. current limit and reverse-current protection

Dual-Channel

Part Number	V_{in} (Min) (V)	V_{in} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Package	Notes
MP5095	0.5	5.5	2.3 (x2)	5	Active High	-	✓	TSOT23-8	Dual-channel, low I_{Q1} , 30mΩ low $R_{DS(ON)}$, reverse-block connection
MP5090	0.5	5.5	3/2	5	Active High	-	✓	TQFN-8 (1.5x2), CSP (1.05x1.6)	Dual-channel, low I_{Q1} , 30mΩ low $R_{DS(ON)}$, reverse-block connection, small package
MP5092	0.5	5.5	7.5 (x2)	7	Active High	-	✓	TQFN-18 (2x3)	Dual-channel, prog. current limit, slew rate control, fast-off protection

USB Port Controllers

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Package	Notes
MP5034	3.6	14	-	6	Active High	-	-	TSOT23-8	Integrates QC 3.0 protocol
MP5030C	-	14	3	6	-	-	-	QFN-10 (1.5x2)	Current-limit switch; supports CDP, DCP, and QC 3.0 modes
MP5032	3.6	14	3	6	Active High	-	-	TSOT23-8	QC 3.0 controller, integrated current-limit switch
MP5030D	-	14	3	6	Active High	-	-	QFN-10 (1.5x2)	Load detection, supports CDP and DCP modes
MP5029-C	3	24	3	3.65	Active High	✓	✓	QFN-14 (2x3)	Current-limit switch; supports CDP, DCP, and QC 3.0 modes
MPQ5029-C	3	24	3	3.65	Active High	✓	✓	QFN-14 (2x3)	Current-limit switch; supports CDP, DCP, and QC 3.0 modes; AEC-Q100

USB PD Controllers

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Package	Notes
MP5031 MPQ5031	4.6	5.5	5	-	Active High	-	✓	QFN-20 (4x4)	Supports USB Type-C and PD3.0 PPS, USB2.0 BC1.2 CDP and DCP mode, QC2.0/3.0/4.0, BC1.2 short mode, Apple charging, and Huawei FCP
N MP5038 MPQ5038	4.6	5.5	5	6	Active High	OVP, UVP	✓	QFN-20 (4x4)	Supports USB Type-C, PD3.0 PPS, and QC3.0; supports DCP schemes for BC1.2, BC1.2 CDP handshaking, and Huawei FCP
N MPF52000	4.6	5.5	5	-	Active High	OVP, UVP	✓	QFN-20 (4x4)	Dual USB PD controller, source port management; supports Qualcomm Quick Charge 3/4/4+, BC1.2, Apple 3A divider mode, Huawei FCP/SCP, and USB PD3.1 with PPS
S MPF52001	4.6	5.5	5	-	Active High	-	✓	QFN-20 (4x4)	USB PD controller, single sourcing; supports Qualcomm Quick Charge 3/4/4+, BC1.2, Apple 3A divider mode, Huawei FCP/SCP, and USB PD3.1 with PPS
N MPF52002	4.6	5.5	5	-	Active High	OVP, UVP	✓	QFN-20 (4x4)	Single USB PD controller for DRP and sink port; supports Qualcomm Quick Charge 3/4/4+, BC1.2, Apple 3A divider mode, Huawei FCP/SCP, and USB PD3.1 with PPS
N MPF52003	4.6	5.5	5	-	Active High	OVP, UVP	✓	QFN-40 (5x5)	Triple-port USB PD controller for sourcing ports; supports Qualcomm Quick Charge 3/4/4+, BC1.2, Apple 3A divider mode, Huawei FCP/SCP, and USB PD3.1 with PPS

USB Port Protection

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Package	Notes
S	MP4501	2.7	3.6	0.5	-	Active High	-	-	TQFN-20 (3x3)	60V, USB Type-C port with OVP and IEC ESD protection
S	MP4502	2.7	3.6	0.5	-	Active High	-	-	TQFN-20 (3x3)	28V, USB Type-C port with OVP and IEC ESD protection

E-Fuses (Electronic Fuses, Integrated Hot-Swap Switches)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Fault Flag	Output Discharge	Package	Notes
	MP5094	5/12	16/24	3/4	8	-	-	TSOT23-8	Dual-channel, over-voltage clamp, OCP with hiccup mode
	MP5098	4.6	13.8	4/3	8	Active Low	-	TQFN-10 (2x3)	Dual-channel current-limit switch with current monitoring
	MP5013A	3	18	4.2	Prog	Short-/Over-Current, Under-Voltage, Over-Voltage, Thermal Shutdown	-	TSOT23-8	5V, 1A to 5A, $36m\Omega R_{DS(ON)}$, prog. current limit and slew rate control, 5A/2.8A trip/hold current
	MP5014A	10	13.8	5	Prog	Short-/Over-Current, Under-Voltage, Over-Voltage, Thermal Shutdown	-	TSOT23-8	12V, $36m\Omega R_{DS(ON)}$, prog. current limit, over-voltage clamp, slew rate control
	MP5016	2.7	15	5	8	-	✓	QFN-10 (1.5x2)	Over-voltage clamp, reverse-current blocking, thermal shutdown, auto-retry
	MP5016-L	2.7	22	5	8	-	✓	QFN-10 (1.5x2)	Latch-off OCP, over-voltage clamp, reverse-current blocking
	MP5016H	2.7	22	5	8	-	✓	QFN-10 (1.5x2)	UL certified, over-voltage clamp, reverse-current blocking, thermal shutdown, auto-retry
	MP5018	4.5	5.5	5	Prog	Thermal Fault = Tri-State	-	QFN-12 (2x3)	Reverse-current blocking, $45m\Omega R_{DS(ON)}$, prog. current limit, latch-off OTP
	MP5017A	3	5.5	5	7.5	Over-Current, Over-Temperature, Output Over-Voltage	✓	QFN-12 (2x3)	Current-limit switch, over-voltage clamp, reverse-current blocking
	MP5035	2.9	22	2	8	-	✓	TSOT23-6	Adjustable current limit, output discharge, OCP with hiccup mode
	MP5042	3.5	28	2	5	-	-	TSOT23-6	Adjustable current limit, OCP with hiccup mode
	MP5036	2.9	14	5	8	-	✓	TSOT23-6	Fixed 15V over-voltage clamp, 0.4A to 5A prog. current limit, fast output OVP response
	MP5036A	2.9	5.5	5	8	-	✓	TSOT23-6	Fixed 5.75V over-voltage clamp, 0.4A to 5A prog. current limit, fast output OVP response
	MP5021B	4.8	16	10	Prog	Current Limit, Thermal Shutdown, Damaged MOSFET	✓	QFN-22 (3x5)	12V, $7m\Omega R_{DS(ON)}$ hot-swap protection device, current monitoring
	MP5022A	8	16	15	Prog	Current Limit, Thermal Shutdown, Damaged MOSFET	✓	QFN-22 (3x5)	12V, $3m\Omega R_{DS(ON)}$ hot-swap protection device, current monitoring, controlled R_{ON} mode

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Fault Flag	Output Discharge	Package	Notes
	MP5022C	4.5	16	15	36	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-22 (3x5)	12V, 3m Ω $R_{DS(ON)}$ hot-swap protection device, current monitoring
	MP5061	4.5	28	15	25	Current Limit, Thermal Shutdown, Under-Voltage, Damaged MOSFET	✓	QFN-22 (3x5)	Enable blanking time and 36V input transient set before V_{OUT} start-up, current monitoring
	MP5056	6	28	15	25	Fault Flag, Current Limit, Thermal Shutdown, Damaged MOSFET Detection	✓	QFN-22 (3x5)	Fast response (200ns) for short protection, external soft start
	MP5921	4	16	50	120	GOK Fault Flag, Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-28 (4x5)	1m Ω $R_{DS(ON)}$ hot-swap protection device, current monitoring
	MP5099	10.8/ 4.5	13.2/ 5.5	4/3	8	-	-	TQFN-10 (2x3)	Dual-channel current-limit switch with current monitoring
S	MP5045	4.3	60	2.35	5	Fault Flag, Current Limit, Current Monitor, Thermal Shutdown	-	QFN-24 (4x4)	60V/2A, reverse-current protection and reverse polarity protection, supports parallel operation
S	MP5046	2.7	60	5	10	Current Limit, Thermal Shutdown, UVLO Protection	✓	TLGA-30 (4x5)	60V, 5A, 40m Ω , low $R_{DS(ON)}$, integrated back-to-back MOSFETs with reverse-current protection, OCP with hiccup mode
	MP5023	4	16	50	110	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	✓	FCQFN-24 (4x5)	1.1m Ω hot-swap protection device, digital interface, current monitoring
	MP5048	24	60	15	26	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-30 (5x5)	7m Ω $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, power-down control, current monitoring, prog. operation mode (latch-off/hiccup)
	MP5991	4	16	50	100	Damaged MOSFET Detection, GOK Fault Flag, Input and Output Transient Protection, OTP, Output SCP, OVP, UVLO Protection	-	LGA-32 (5x5)	1m Ω $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, current monitoring fault reporting output
	MP5981	4	16	50	100	Damaged MOSFET Detection, OCP, OTP, Output SCP	-	LGA-32 (5x5)	1.1m Ω $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, current monitoring, fault reporting output
	MP5990	4	16	50	100	Damaged MOSFET Detection, OCP, OTP, SCP, OVP, UVP	-	LGA-45 (5x7)	1m Ω $R_{DS(ON)}$ fully integrated hot-swap protection device, digital interface, current monitoring fault reporting output
	MP5048A	24	60	5	6.5	Fault Signal Output, Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-30 (5x5)	9m Ω $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, current monitoring, fault signal output
	MP5026	2.7	16	20	50	FLTBL Fault Flag, OCP, SCP, OVP, OTP, Damaged MOSFET Drives FLTBL Low	-	LGA-26 (4x4)	2.8m Ω $R_{DS(ON)}$ hot-swap Intelli-Fuse solution
N	MP5028A	2.7	24	20	Fixed 46/ 2.1 x I_{LIM}	No Fault Pin, PG Pin Indicates V_{OUT} Status	-	LGA-26 (4x4)	2.5m Ω $R_{DS(ON)}$ hot-swap Intelli-Fuse solution
N	MP5028B	2.7	24	20	Fixed 46/ 2.1 x I_{LIM}	No Fault Pin, PG Pin Indicates V_{OUT} Status	-	LGA-26 (4x4)	2.5m Ω $R_{DS(ON)}$ hot-swap Intelli-Fuse solution

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Continuous Current (Max) (A)	Short-Circuit Current (Max) (A)	Fault Flag	Output Discharge	Package	Notes
N	MP5325A	8	16	12	36	FLT_B Fault Flag, OCP, SCP, OTP, Damaged MOSFET Drives FLT_B Low	✓	QFN-22 (3x5)	$3m\Omega R_{DS(ON)}$, hot-swap Intelli-Fuse solution
N	MP5325C	4.5	16	15	36	FLT_B Fault Flag, OCP, SCP, OTP, Damaged MOSFET Drives FLT_B Low	-	QFN-22 (3x5)	$3m\Omega R_{DS(ON)}$, hot-swap Intelli-Fuse solution
N	MP5992A	4	16	50	100	GOK Fault Flag, OCP, SCP, OTP, OVP, Damaged MOSFET Drives GOK Low, FLT_TYPE Indicates Fault Type	-	LGA-32 (5x5)	$1m\Omega R_{DS(ON)}$, hot-swap protection device
S	MP5998	2.9	16	60	40/60/80/100/120/140 (Prog)	FLT_B Fault Flag, OCP, SCP, OVP, OTP, Damaged MOSFET Drives FLT_B Low, PG Pin Indicates V_{OUT} Status	✓	QFN-26 (5x4.5)	$0.79m\Omega R_{DS(ON)}$, hot-swap solution with PMBus
S	MP591P2	2.9	16	60	120	FLT_B Fault Flag, OCP, SCP, OVP, OTP, Damaged MOSFET Drives FLT_B Low, FLT_TYPE Indicates Fault Type, PG Pin Indicates V_{OUT} Status	✓	LGA-33 (5x5)	$0.79m\Omega R_{DS(ON)}$, fully Integrated hot-swap solution

48V Modules & Components

48V Modules

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	V_{OUT} (Min) (V)	V_{OUT} (Max) (V)	Output Power (Max) (W)	Isolated/Non-Isolated	Notes
	MPC1100C-54-0002	40	60	60	4	6	300	Non-Isolated	Config. soft-start time, config. UVLO, OVP, UVP, OCP, OTP; parallel operation, protection mode
	MPC12106-54-0750-0220	40	60	60	10	15	800	Non-Isolated	Config. soft-start time, config. UVLO, OVP, UVP, OCP, OTP; parallel operation, protection mode
S	MPC10106-B-54-0500-0580	40	60	89	5	7.5	600	Non-Isolated	Config. MCU settings, config. UVLO, OVP, UVP, OCP, OTP; parallel operation, protection mode
S	MPC10206-54-1000-0540	40	60	150	5	7.5	1000	Non-Isolated	Config. soft-start time, config. UVLO, OVP, UVP, OCP, OTP; parallel operation, protection mode
S	MPC42013-A-54-1600-0400	40	60	136	11.6	12.4	1600	Non-Isolated	Regulated 12V output, supports parallel load-line current-sharing
S	MPC42013-B-54-1600-0420	40	60	136	11.6	12.4	1600	Non-Isolated	Regulated 12V output, supports differential remote sense

Synchronous Rectifiers

	Part Number	V_{DS} (Max) (V)	I_{DS} (A)	$R_{DS(ON)}$ (m Ω)	V_{PWM} (V)	V_{CC} (Min) (V)	V_{CC} (Max) (V)	Package	Notes
N	MP8500	18	5	0.9	3.3	3	3.6	FCLGA-39L (5x5)	Dual-channel, Accu-Sense™ current sense, ZCD, junction temp sense

GaN/MOSFET Drivers

	Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	V_{PWM} (V)	Driver Channels	t_{RISE} (ns)	t_{FALL} (ns)	Pull-Down/Pull-Up Resistance (Ω)	Package	Notes
	MP8699B	4.5	5.5	3.3/5	2	10	10	0.2/1.3	WLCSP-12L (2x2)	Half-bridge, bootstrap technique for high-side driver voltages up to 100V
N	MP8697	3.3	5.5	5.5	2	10	3	0.2/1	WLCSP-12 (2x2)	Half-bridge, bootstrap technique for high-side driver, operating voltage up to 100V

Buck Converters

	Part Number	V_{IN} (Max) (V)	V_{IN} (Min) (V)	I_{OUT} (Max) (A)	f_{SW} (Max) (kHz)	I_O (Typ) (mA)	V_{FB} (V)	PG	SS	Max Duty Cycle (%)	Package	Notes
S	MP4588	8	100	0.8	380	0.015	1.025	-	External	-	QFN-14L (3x3)	High-efficiency, synchronous, integrated power MOSFETS

Intelli-Modules™

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Min) (V)	V_{OUT} (Max) (V)	I_{OUT} (Max) (A)	f_{SW} (Min) (kHz)	f_{SW} (Max) (kHz)	Dimensions WxL (mm)	Dimensions (H) (mm)	Mounting Type	Notes
MPC22163-130	4	16	0.5	2	130	600	1500	9x10	8	Surface Mount	Current sense, OCP, OTP, parallel operation, temp sense
MPC22161-120	4	16	0.5	2	120	600	1500	9x10	8	Surface Mount	Current sense, OCP, OTP, parallel operation, temp sense
MPC22164-130	4	16	0.5	2	130	400	1500	9x10	10	Surface Mount	Current sense, OCP, OTP, parallel operation, temp sense
MPC22167-130	4	16	0.5	2	130	500	1500	9x10	8	Surface Mount	Current sense, OCP, OTP, parallel operation, temp sense
MPC22165-170	4	16	0.5	2	170	500	1500	9x10	10	Surface Mount	Current sense, OCP, OTP, parallel operation, temp sense
MPC22168-170	4	16	0.5	2	170	500	1500	9x10	8	Surface Mount	Current sense, OCP, OTP, parallel operation, temp sense

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Min) (V)	V_{OUT} (Max) (V)	I_{OUT} (Max) (A)	f_{SW} (Min) (kHz)	f_{SW} (Max) (kHz)	Dimensions WxL (mm)	Dimensions H (mm)	Mounting Type	Notes
S	MPC22166-A-130	4	16	0.5	2	130	600	1500	9x10	4	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
S	MPC22166-B-130	4	16	0.4	2	130	500	1500	9x10	4	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
	MPC22157-130	4	16	0.5	2	130	500	1500	9x10	8	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
S	MPC24380-260	3	8	0.5	2	260	500	1500	9x10	5	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
N	MPC22164-A-130	4	16	0.5	2	130	600	1500	9x10	10	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
N	MPC22165-A-170	4	16	0.5	2	170	600	1500	9x10	10	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
S	MPC22158-130	3	16	0.5	2	130	600	1500	8x8	4	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
S	MPC22175-130	4	16	0.2	2	130	400	2000	9x10	5	Surface Mount	Quiet Switcher™ technology, TLVR current sense, OCP, OTP, parallel operation, temp sense
S	MPC22166-D-130	4	16	0.2	2	130	400	2000	9x10	5	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
S	MPC22157-A-130	4	16	0.5	2	130	400	2000	9x10	8	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense
S	MPC24180-260	4	16	0.5	2	260	600	2000	9x10	5	Surface Mount	Quiet Switcher™ technology, current sense, OCP, OTP, parallel operation, temp sense

Hot-Swap Controllers

	Part Number	# of Channels	Interface	Package	Notes
	MP5920	1	Digital Interface	TQFN-32 (4x4)	Parallel config., prog. via digital interface; built-in ADC for current, voltage, or temp reading, reports power and energy consumption
S	MP5930	1	Digital Interface	LGA-42 (4x7)	12-bit ADC to monitor V_{IN} , V_{OUT} , I_{OUT} , V_{AUX} , and temp via PMBus, reverse-current protection

High-Voltage Analog Switches

Serial Shift Register Control

	Part Number	# of Channels	V _{DD} Bias (V)	V _{sig} (Max) (V)	R _{switch} (Ω)	Output Bleed Resistor	Switch Configuration	Bandwidth (MHz)	Package	Notes
	MP4816A	16	9.5	±90	12.5	✓	SPST, 1:1	80	TQFP-48 (7x7)	16-bit
	MP4816	16	9.5	±90	12.5	-	SPST, 1:1	80	TQFP-48 (7x7)	16-bit
N	MP4832A	32	12	±90	14	✓	SPST, 1:1	80	QFN-72 (10x10)	32-bit with bank switching
	MP4833A	32	9.5	±90	12.5	✓	SPST, 1:1	80	BGA-80 (7x7)	32-bit
	MP4835A	32	5	±100	14	✓	SPST, 1:1	80	QFN-72 (10x10)	32-bit with bank switching
	MP4864A	64	12	±90	14	✓	SPST, 1:1	80	BGA-144 (10x10)	64-bit
	MP4865A	64	5	±90	14	✓	SPST, 1:1	80	BGA-144 (10x10)	64-bit
N	MP4895A	96	5	±90	14	✓	SPST, 1:3	80	BGA-144 (10x10)	96-bit
S	MP4898A	128	5	±90	14	✓	SPST, 1:2	80	BGA-215 (10x20)	128-bit

Inductors

Semi-Shielded

Part Number	L (μH)	R _{DC} (Typ) (mΩ)	I _h (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-SE2512-R47	0.47	20	4.5	6.5	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-R68	0.68	28	3.9	5	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-1R0	1	35	3.4	4.2	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-1R5	1.5	50	2.9	3.2	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-2R2	2.2	72	2.5	2.7	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-3R3	3.3	90	2.1	2.4	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-4R7	4.7	165	1.6	1.9	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-6R8	6.8	305	1.2	1.6	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-100	10	410	1.1	1.3	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-150	15	620	0.85	0.9	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE2512-220	22	885	0.7	0.8	125	2512	2.5	2	1.2	SMD	Low profile, external epoxy resin for better magnetic characteristics
MPL-SE4030-R68	0.68	10	6	7.5	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics

Part Number	L (µH)	R _{DC} (Typ) (mΩ)	I _R (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-SE4030-1R0	1	14	5.5	7	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-2R2	2.2	30	3.7	5.5	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-3R3	3.3	40	3.3	4.1	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-4R7	4.7	62	2.6	3.4	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-6R8	6.8	90	2.2	2.9	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-100	10	100	2	2.2	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-150	15	185	1.4	1.8	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-220	22	220	1.3	1.5	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-330	33	330	1.1	1.2	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE4030-470	47	480	0.9	1	125	4030	4	4	3	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-R47	0.47	7.3	8	16	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-1R0	1	9.4	7.6	10.5	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-1R5	1.5	14	6.2	9.3	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-2R2	2.2	16	5.4	7.9	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-3R3	3.3	22	5.2	6.4	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-4R7	4.7	33	4.3	5	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-6R8	6.8	45	3.5	4.6	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-100	10	56	3.2	3.6	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-150	15	83	2.5	2.9	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE5040-220	22	124	2.1	2.4	125	5040	4.9	4.9	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-1R5	1.5	11.5	6.8	8.9	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-2R2	2.2	14.5	6.3	7.2	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-3R3	3.3	19.5	5.6	5.6	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-4R7	4.7	23	5.2	5	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-6R8	6.8	33	4.4	4.1	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-8R2	8.2	39	4	3.6	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics

Part Number	L (µH)	R _{DC} (Typ) (mΩ)	I _r (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-SE6040-100	10	41	3.8	3.4	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-150	15	70	2.8	2.7	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics
MPL-SE6040-220	22	97	2.35	2.25	125	6040	6	6	4	SMD	External epoxy resin for better magnetic characteristics

Molded

Part Number	L (µH)	R _{DC} (Typ) (mΩ)	I _r (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AT2010-R47	0.47	27	4.5	5.7	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-R68	0.68	41	3.6	4.9	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-1R0	1	50	3.3	4.2	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-1R5	1.5	85	2.4	3.2	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-2R2	2.2	125	2	2.6	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2010-4R7	4.7	200	1.5	2	125	2010	2	1.6	1	SMD	Low profile
MPL-AT2512-R33	0.33	13	6.4	7.8	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-R47	0.47	14	5.8	6.4	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-R68	0.68	23	4.8	6	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-1R0	1	33	4.1	5.2	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-1R5	1.5	43	3.4	4.2	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-2R2	2.2	68	2.8	3.4	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-3R3	3.3	116	2.2	3	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-4R7	4.7	170	1.8	2.4	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-6R8	6.8	260	1.4	2.2	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AT2512-100	10	355	1.2	1.7	125	2512	2.5	2	1.2	SMD	Low profile
N MPL-AT2512-100C	10	335	1.2	1.7	125	2512	2.5	2	1.2	SMD	Low profile
MPL-AY3020-R47	0.47	19.5	6.3	9	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-R68	0.68	26	5.15	8.6	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-R82	0.82	28	4.7	8	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-1R0	1	30	4.3	6.2	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-1R5	1.5	35	3.4	5.9	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-2R2	2.2	64	3	5.3	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-3R3	3.3	121	2.5	3.7	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-4R7	4.7	173	2	3.1	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-5R6	5.6	209	1.8	2.8	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-6R8	6.8	250	1.65	2.6	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-8R2	8.2	345	1.4	1.95	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY3020-100	10	370	1.3	1.75	125	3020	3.5	3.2	1.8	SMD	-
MPL-AY4020-5R6	5.6	97	2.45	2.6	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities

Part Number	L (µH)	R _{DC} (Typ) (mΩ)	I _R (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AY4020-6R8	6.8	129	2.2	2.4	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities
MPL-AY4020-8R2	8.2	136	2.1	2.1	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities
MPL-AY4020-100	10	163	1.9	2	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities
MPL-AY1050-R47	0.47	1.25	25	41	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-R68	0.68	1.75	23	36	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-1R0	1	2.6	19	33	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-1R5	1.5	3.4	17	26.5	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-2R2	2.2	4.9	15	19.5	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-3R3	3.3	8	12.5	17	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-4R7	4.7	9.5	11.5	15	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-5R6	5.6	13	9.8	14	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-6R8	6.8	15	9	13	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1050-100	10	19	7.8	12	155	1050	11	10	4.8	SMD	High-temperature capabilities
MPL-AY1265-R47	0.47	0.89	33	64	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-R56	0.56	1.1	31	58	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-R68	0.68	1.25	29	51	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-R82	0.82	1.3	27	46	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R0	1	1.5	25.5	43	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R2	1.2	1.8	24	37	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R5	1.5	2.3	22	34	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-1R8	1.8	3.3	20	29	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-2R2	2.2	3.7	17	26.5	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-3R3	3.3	5.5	16	25	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-4R7	4.7	7	14	23	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-5R6	5.6	8.6	13	20	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-6R8	6.8	9.9	12	19.5	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities

Part Number	L (µH)	R _{DC} (Typ) (mΩ)	I _r (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AY1265-8R2	8.2	12.5	11.5	18	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-100	10	13.3	10.7	16	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-150	15	21.8	8.5	12	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AY1265-220	22	31.4	7	9	155	1265	13.5	12.6	6.2	SMD	High-temperature capabilities
MPL-AL4020-R47	0.47	6.2	9.2	12.5	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-R68	0.68	7.5	8.7	11	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-R82	0.82	9	8.4	9.5	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-1R0	1	10.1	7.9	8.6	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-1R2	1.2	12.2	7.4	7.5	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-1R5	1.5	14.5	6.4	7.1	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-2R2	2.2	21.5	5.5	6.2	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-3R3	3.3	34.5	4.4	5.2	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL4020-4R7	4.7	52.2	3.65	4.2	155	4020	4.1	4.1	1.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-R47	0.47	3.78	13.6	26.5	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-R56	0.56	3.92	13.2	22	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-R82	0.82	5	12.8	18	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-1R0	1	6.5	11.2	16	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-1R2	1.2	8	10	14	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-1R5	1.5	9.7	9	12.5	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance

Part Number	L (µH)	R _{DC} (Typ) (mΩ)	I _R (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AL5030-1R8	1.8	10.5	8.8	12	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-2R2	2.2	12.3	8.2	11	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-3R3	3.3	21	6	10	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5030-4R7	4.7	33	5.3	8	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
MPL-AL5050-5R6	5.6	20	6.8	8	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL5050-6R8	6.8	25	6.1	7.6	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL5050-8R2	8.2	28	5.8	7.2	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL5050-100	10	37	4.8	5.5	155	5050	5.5	5.3	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-R82	0.82	3.9	16.9	24	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-1R0	1	4.3	16.2	21	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-1R2	1.2	5.3	14.6	20	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-1R5	1.5	6	13.3	18	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-2R2	2.2	8.3	12	15	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-3R3	3.3	11.7	10.1	12	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-4R7	4.7	16.5	7.5	11	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6050-5R6	5.6	19	7	10	155	6050	6.6	6.4	4.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-4R7	4.7	12	10	9	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-5R6	5.6	13	9.4	8.6	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance

Part Number	L (µH)	R _{DC} (Typ) (mΩ)	I _R (40K Rise) (A)	I _{SAT} (30% Drop) (A)	Operating Temp (Max) (°C)	Size	A Dimension (L) (mm)	B Dimension (W) (mm)	C Dimension (H) (mm)	Construction	Notes
MPL-AL6060-6R8	6.8	16	8.5	8	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-8R2	8.2	19	8	7	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-100	10	24	6.9	6.6	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance
MPL-AL6060-150	15	35	5.8	5.5	155	6060	6.6	6.4	5.8	SMD	High-temperature capabilities, low resistance

Analog-to-Digital Converters

Precision ADCs

	Part Number	Resolution (Bits)	Sample Rate (Max) (MSPs)	# of Channels	SNR (dBFS)	INL (LSB)	V _{DD} (V)	Architecture	Input Type	Data Interface	Operating Temperature (°C)	Package
	MDC97476	12	1	1	72.2	0.5	3 to 3.6	SAR	Single-Ended	SPI	-40 to +85	SOT-23
	MDC97477	10	1	1	61.7	0.15	3 to 3.6	SAR	Single-Ended	SPI	-40 to +85	SOT-23
	MDC97478	8	1	1	50	0.04	3 to 3.6	SAR	Single-Ended	SPI	-40 to +85	SOT-23
N	MDC97476A	12	1	1	72.6	0.5	3 to 5.5	SAR	Single-Ended	SPI	-40 to +125	SOT-23
N	MDC97477A	10	1	1	61.7	0.3	3 to 5.5	SAR	Single-Ended	SPI	-40 to +125	SOT-23
N	MDC97478A	8	1	1	49.7	0.15	3 to 5.5	SAR	Single-Ended	SPI	-40 to +125	SOT-23

Current-Input Delta-Sigma AFEs

	Part Number	Resolution (Bits)		Sample Rate (Max) (ksps)	# of Channels	Input Range (pC)	Noise (ppm of FS, RMS)	AV _{DD} (V)	V _{DD} (V)	Interface	Operating Temperature (°C)	Package	Notes
N	MDC91127	16	6	128	4 to 25	44	5	1.8	Dual Serial	-40 to +85	BGA-440 (10x10)	32 x 128 sample data buffer	
N	MDC91128	20	6	128	4 to 25	20	5	1.8	Dual Serial	-40 to +85	BGA-440 (10x10)	32 x 128 sample data buffer	
S	MDC91256	20	6	256	4 to 25	20	5	1.8	Quad Serial	-40 to +85	BGA-783 (10x10)	32 x 256 sample data buffer	

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