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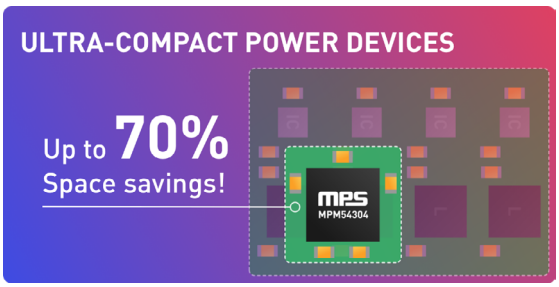

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SWITCHING REGULATORS | DC/DC POWER CONVERSION

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)	NVIDIA OpenVReg
MP2884A	3	3.6	30	0.15	0.2 to 5	1	4	QFN-40 (5x5)	NVIDIA OpenVReg
MP2886A	3	3.6	30	0.15	0.2 to 5	1	6	QFN-40 (5x5)	NVIDIA OpenVReg
MP2853	3	3.6	34	0.11	0.2 to 3	2	5	QFN-40 (5x5)	AMD SVI2
MP2855	3.15	3.45	40	0.17	0.2 to 3	2	9	TQFN-40 (5x5)	AMD 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)	NVIDIA OpenVReg, CPU/GPU, ASIC

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	0.08	0.1 to 2	3.3	QFN-23 (4x4)	-
MP86945A	4.5	16	60	90	0.01	0.1 to 2	3.3	TQFN-25 (4x5)	-
MP86934	4.5	16	25	60	0.03	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	0.09	0.1 to 3	3.3	LGA-41 (5x6)	-
MP86972	3	12	60	90	0.09	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	0.09	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	0.09	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	0.09	0.1 to 3	3.3	LGA-41 (5x6)	Radiation tolerant
MP86956	3	16	70	110	0.09	0.1 to 3	3.3	LGA-41 (5x6)	-
MP86992	3	16	50	75	0.09	0.1 to 3	3.3	LGA-41 (5x6)	-
MP86962	3	16	80	110	0.09	0.1 to 3	3.3	TLGA-41(5x6)	Radiation tolerant
MP86935-A	3	12	60	90	0.09	0.1 to 3	3.3	TLGA-35 (3x6)	-
(N) **MP87180**	3	16	80	120	0.05	0.1 to 1.5	3.3 and 5	TLGA-41 (5x6)	Quiet Switcher™ technology
MP87190	3	16	90	120	0.05	0.1 to 1.5	3.3 and 5	TLGA-41 (5x6)	Quiet Switcher™ technology

(N) - New Product

Step-Down Converters (Buck) — Maximum Operating Input Voltage 1.5V ≤ V_{IN} ≤ 6V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	Light-Load Efficiency	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_Q
MP28310	2	5.5	0.3	0.5	-	1.5	✓	✓	✓	✓	-	CSP-12 (1.2x1.6)	100mA LDO with 300nA I_Q, 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_Q
MP28301	2	5.5	0.7	0.5	0.6	1.5	✓	✓	✓	✓	-	QFN-12 (2x2)	100mA LDO with 300nA I_Q, 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	0.608	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	2.38	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	0.608	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
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
(N) **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

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Operating Input Voltage 1.5V ≤ V_{IN} ≤ 6V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Industrial	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
N 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
S MP1604	2.4	5.5	4	5	0.4	1.2	✓	-	✓	✓	-	-	SOT583 (1.6x2.1)	High performance, low I_Q, supports V_{OUT} from 0.4V, 1% output accuracy, output discharge
S MP2194	2.4	5.5	4	5	0.4	1.2	✓	-	✓	✓	-	-	SOT583 (1.6x2.1)	High performance, low I_Q, supports V_{OUT} from 0.4V, 1% output accuracy, output discharge
S MP1604C	2.4	5.5	4	450	0.4	1.2	✓	-	-	✓	-	-	SOT583 (1.6x2.1)	High performance, -C for FCCM verison, low I_Q, supports V_{OUT} from 0.4V, 1% output accuracy, output discharge
S MP1608	2.4	5.5	6	5	0.4	1.2	✓	-	✓	✓	-	-	SOT583 (1.6x2.1)	High performance, low I_Q, supports V_{OUT} from 0.4V, 1% output accuracy, output discharge
S MP2196	2.4	5.5	6	5	0.4	1.2	✓	-	✓	✓	-	-	SOT583 (1.6x2.1)	High performance, low I_Q, supports V_{OUT} from 0.4V, 1% output accuracy, output discharge
S MP1608C	2.4	5.5	6	450	0.4	1.2	✓	-	-	✓	-	-	SOT583 (1.6x2.1)	High performance, -C for FCCM verison, low I_Q, supports V_{OUT} from 0.4V, 1% output accuracy, output discharge
MP8847	2.7	6	6	300	0.6	0.85 to 2.2	✓	-	✓	-	-	-	QFN-14 (2x3)	I^2C, prog. V_{OUT}, power-save mode
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
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

N - New Product S - Sampling Product

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

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
MP1479	4.2	18	1	0.19	0.805	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	0.798	2	-	-	✓	-	QFN-8 (1.5x2.5)	Small package, ultra-thin profile option
MP2317	7.5	26	1	0.15	0.791	0.6	-	-	✓	-	TSOT23-6	Low current limit version of the MP2314, optimized EMI
MP2322	3	22	1	0.005	0.6	1.25	✓	-	✓	✓	QFN-8 (1.5x2)	Ultra-low I_Q, small package, output discharge
MP1476	4.2	18	2	0.19	0.805	0.8	-	-	✓	✓	SOT563 (1.6x1.6)	P2P with the MP1479/MP1477
MP2318	4.5	24	2	0.2	0.798	2	-	-	✓	-	TSOT23-8	High frequency, light-load mode (AAM pin), P2P with the MP2313
MPQ2314	4.5	24	2	0.18	0.791	0.5	-	-	✓	✓	TSOT23-8	AAM power-save mode, industrial grade
MP2332H	4.2	18	2	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2333H
MP2321	4	19	2	0.04	0.6	Prog	✓	✓	✓	-	QFN-14 (2x3)	Forced PWM or auto-PFM/PWM mode selectable, 100% duty cycle
MP2392	4.2	24	2	0.2	0.805	0.65	✓	✓	✓	✓	SOT583 (1.6x2.1)	P2P with the MP2393
MP2331H	4.2	24	2	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2330H
MP2344	7.5	26	2	0.17	0.791	0.6	-	-	✓	-	TSOT23-6	P2P with the MP2317/MP2345, optimized EMI
MP2345	7.5	26	2.5	0.17	0.791	0.6	-	-	✓	-	TSOT23-6	P2P with the MP2317/MP2344, optimized EMI
MP2393	4.2	24	3	0.2	0.805	0.65	✓	✓	✓	✓	SOT583 (1.6x2.1)	P2P with the MP2392
MP2333H	4.2	18	3	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2332H
MP2330H	4.2	24	3	0.2	0.805	1.2	✓	✓	-	✓	SOT583 (1.6x2.1)	High frequency, FCCM, P2P with the MP2331H
MP1477	4.2	17	3	0.2	0.805	0.8	-	-	✓	✓	SOT-563 (1.6x1.6)	P2P with the MP1479/MP1476
MP1477H	4.2	17	3	0.2	0.805	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	0.19	0.6	0.6	-	-	✓	✓	SOT-563 (1.6x1.6)	600mV V_{REF}
MP2223	4.5	18	3/2	1	0.8	0.54	-	-	✓	-	TSOT23-8	Dual 3A/2A buck, 180° out-of-phase operation
MP2348	4.2	24	4	0.2	0.802	0.65	-	✓	✓	✓	SOT583 (1.6x2.1)	Forced PWM, auto-PFM mode, ultrasonic mode
MP8854	2.85	18	4	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	QFN-14 (3x4)	I^2C prog. FB range, int. telemetry, accurate V_{OUT}/I_{OUT} readback via I^2C, P2P with the MP8861/69S
N **MP8853**	2.85	18	4	0.42	0.6 to 1.108 (Adj in 4mV Steps)	0.5 to 1.25	✓	-	✓	✓	QFN-14 (3x3)	I^2C prog. FB range and f_{SW}, accurate V_{OUT}/I_{OUT} readback via I^2C

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

	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
	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^2C interface, prog. V_{OUT}, power-save mode
N	**MP8870**	3	18	15	0.06	0.3V to 1.536V (in 1.5mV Steps)	0.55 to 0.75	✓	✓	✓	✓	QFN-21 (3x4)	Frequency and current limit adj. via I^2C, differential V_{OUT} remote sense, adaptive COT for ultra-fast transient response
	MPQ8623	4	16	6	0.65	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	0.65	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	0.105	0.6	0.7	-	-	✓	✓	QFN-11 (2x2)	Forced PWM, auto-PFM mode, ultrasonic mode
N	**MPQ8861**	2.85	18	12	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	QFN-14 (3x4)	Wettable flank package, output adj. in 4mV steps, I^2C
	MPQ8633A	4	16	16	0.65	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	0.65	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	0.65	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	0.65	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.
	MPQ8655	4	16	30	2.5	0.6	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.

N - New Product

Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
MP2328	4.5	28	2	0.16	0.5	0.45	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	P2P with the MP233x family
MP2328C	4.5	28	2	0.56	0.5	0.45	✓	✓	-	✓	-	SOT583 (1.6x2.1)	FCCM
MP2338	4.5	28	3	0.16	0.45	0.45	✓	✓	✓	✓	-	SOT583 (1.6x2.1)	P2P with MP2328
MP2316	4	19	3	0.04	0.6	Prog	✓	✓	✓	✓	-	QFN-14 (2x3)	High efficiency, 100% duty cycle
MP2326	3.9	19	4	0.04	0.6	Prog	✓	✓	✓	✓	-	QFN-14 (2x3)	Selectable PFM/PWM mode, 100% duty cycle
MP8715	4.5	21	4	0.66	0.805	0.5	✓	✓	-	-	-	QFN-14 (3x4), SOIC-8E	100% duty cycle, ext. freq. sync
MP1499	4.5	16	5	0.6	0.807	0.5	-	✓	✓	-	-	QFN-10 (2x3)	Ext. freq. sync range 200kHz to 2MHz, current mode
MP2384	4.5	24	4	0.105	0.6	0.7	✓	-	✓	✓	-	QFN-11 (2x2)	Output discharge, thermal shutdown with auto-retry, P2P with the MP2329/MP2386
MP2384C	4.5	24	4	0.105	0.6	0.7	✓	-	-	✓	-	QFN-11 (2x2)	FCCM
MPQ8636-4	4.5	18	4	0.86	0.611	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	0.32	0.6	0.5	-	-	✓	-	-	TSOT23-8	External freq. sync, P2P with the MP2236
MPQ8623	4	16	6	0.65	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	2.85	18	6	0.42	0.6 to 1.108 (Adj)	0.5 to 1.25	✓	✓	✓	✓	-	QFN-14 (3x4)	I²C prog. FB range, integrated telemetry, accurate V_{OUT}/I_{OUT} readback via I²C, P2P with the MP8854/69S
MP2236	3	18	6	0.15	0.6	0.6	-	-	✓	✓	-	TSOT23-8	P2P with the MP2225
MP2236C	3	18	6	0.15	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)	I²C interface, prog. V_{OUT}, power-save mode
MP2329	4.5	24	6.5	0.105	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	0.105	0.6	0.7	✓	-	-	✓	-	QFN-11 (2x2)	FCCM version of the MP2329
MP2386C	4.5	24	8	0.105	0.6	0.7	✓	-	✓	✓	-	QFN-11 (2x2)	FCCM, P2P with the MP2384/MP2329
MP2386	4.5	24	8	0.105	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

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Step-Down Converters (Buck) — Maximum Operating Input Voltage ≤ 28V

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
MP8867	4.5	17	8	0.56	0.6 to 1.87 (Adj in 10mV Steps)	0.5 to 1.5 (Selectable)	✓	✓	✓	-	-	QFN-14 (3x4)	I²C, prog. V_{OUT}, power-save mode
MP8759	4.5	26	8	0.117	0.6	0.7	✓	-	✓	✓	-	QFN-12 (2x3)	USM, PFM/PWM selection, hiccup mode OCP and UVP, output discharge
MP2238	4.2	18	8	0.15	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	0.86	0.611	Prog	✓	✓	-	✓	✓	QFN-16 (3x4)	CCM, latch-off OVP/OCP
MP8758H	4.5	22	10	0.19	0.604	0.5	✓	-	✓	✓	-	QFN-21 (3x4)	Thermal auto-retry, hiccup mode OCP and UVP, PFM/PWM mode
MP8714	4.5	17	10	0.56	0.6	Ext clock	✓	✓	✓	-	-	QFN-14 (3x4)	Ext. freq. sync 200kHz to 2MHz, current mode
MP8868	4.5	17	10	0.56	0.6 to 1.87 (Adj in 10mV Steps)	0.5 to 1.5 (Selectable)	✓	✓	✓	-	-	QFN-14 (3x4)	I²C, prog. V_{OUT}, power-save mode
MP8720	4.5	26	10	0.14	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
S **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	2.85	18	12	0.42	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 I²C, P2P with the MP8861/54
MP8719	4.5	26	12	0.135	0.6	0.5 / 0.7	✓	-	✓	✓	-	QFN-16 (3x3)	Output discharge, USM, buck converter with ±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 **MP2422**	3.6	24	25	0.2	0.4	0.65/0.8/1	✓	✓	✓	✓	-	TLGA-36 (5x5)	25A, selectable freq., differential remote sense for high output accuracy, 1% reference voltage accuracy
S **MP2423**	3.6	24	30	0.2	0.4	0.65/0.8/1	✓	✓	✓	✓	-	TLGA-36 (5x5)	30A, selectable freq., differential remote sense for high output accuracy, 1% reference voltage accuracy
MPQ8636H-20	4.5	18	20	1	0.611	Prog	✓	✓	-	✓	✓	QFN-29 (5x4)	CCM, hiccup OVP
MP8792	2.7	16	12	0.65	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	0.65	0.6	0.6/0.8/1 (Selectable)	✓	✓	✓	✓	-	QFN-21 (3x4)	Adj. current limit, prog. frequency, differential V_{OUT} sense

N - New Product S - Sampling Product

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Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	I_Q (Typ) (µA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
MP8795H	2.7	16	20	0.65	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	✓	✓	✓	✓	-	TQFN25 (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
MPQ8633A-H	4	16	12	0.65	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	0.65	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	0.62	0.7 to 1	✓	-	✓	✓	-	QFN-16 (3x3)	Prog. current limit and frequency, low I_Q, output discharge
N **MP8639**	4.5	16	6	0.105	0.62	0.75	✓	-	✓	✓	-	QFN-11 (2x2)	Low I_Q, proprietary switching loss red., output discharge
N **MPQ8643**	4	16	20	0.65	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_Q (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	34	2	0.055	0.6	800	-	-	✓	✓	-	TSOT23-6	Adj. output from 0.6V, ±1% FB accuracy, low quiescent current, output discharge, low-dropout mode
MP4410	4.5	36	0.1	0.02	1	Prog	✓	-	-	✓	-	QFN-10 (3x3)	Low I_Q
MP4568	4.5	45	0.1	0.02	1	Prog	-	✓	-	✓	✓	QFN-10 (3x3)	Prog. peak-current limit
MP4569	4.5	75	0.3	0.02	1	1000	✓	✓	-	✓	✓	QFN-10 (3x3), SOIC-8E	Integrated high-side/low-side
MP2420	4.5	75	0.3	0.02	1	Prog	✓	✓	-	✓	✓	TSSOP-16	Watchdog, step-down
MPQ2459	4.5	55	0.5	0.73	0.812	480	-	-	-	-	✓	TSOT23-6	Built-in power MOSFET
MPQ2456	4.5	50	0.5	0.73	0.85	1200	-	-	✓	-	✓	TSOT23-6	OCP
MP4566	4.5	36	0.6	0.035	1	1000	-	-	✓	-	-	QFN-8 (2x3)	-
MPQ2451	3.3	36	0.6	0.13	0.794	2000	-	-	✓	-	✓	TSOT23-6L QFN-6L	-
MP2454	3.3	36	0.6	0.06	0.8	2300	✓	✓	-	-	✓	QFN-10 (3x3)	External frequency sync

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

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
MP2457	5	36	0.6	0.065	0.8	2000	-	-	✓	✓	✓	TSOT23-6	-
MP2460	4.5	45	0.6	0.15	0.8	1600	-	-	✓	✓	-	TSOT23-6	LDO mode, 98% max duty
(N) **MP4562**	4.5	60	2	0.03	0.8	2500	-	✓	✓	-	✓	TSOT23-8	Configurable frequency
MP9572	4.5	60	2	0.04	0.8	2200	✓	✓	-	✓	✓	QFN-12 (2.5x3)	-
MP4541	10	80	0.8	0.015	1	Prog	-	-	✓	✓	✓	SOIC-8EP	High efficiency at light loads
MP4581	10	100	0.8	0.015	1	Prog	-	-	✓	✓	✓	SOIC-8EP	High efficiency at light loads
MPQ4458	3.8	36	1	0.12	0.8	Prog	-	-	-	-	-	TQFN-10 (3x3)	Integrated HS-FET
MPQ4558	3.8	55	1	0.14	0.8	Prog	-	-	✓	-	✓	QFN-10 (3x3), SOIC-8E	Current mode control
MP4431 MPQ4431	3.3	36	1	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
MP2269	3.3	30	1	0.012	0.8	Prog	✓	✓	✓	✓	-	QFN-15 (2x3)	Current mode control, low I_Q, forced PWM or auto-PFM/PWM, low-dropout mode
MPQ4459	3.8	36	1.5	0.12	0.8	Prog	-	-	✓	-	✓	TQFN-10 (3x3)	Current mode control
MPQ2490	4.5	36	1.5	0.5	0.805	700	✓	✓	-	-	✓	SOIC-8	Prog. output current limit
MPQ4561	3.8	55	1.5	0.14	0.795	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	0.792	410	✓	-	✓	✓	-	TSOT23-8	Consumer grade, ext. freq. sync
MP4420H MPQ4420H	4	36	2	0.5	0.792	410	✓	-	-	✓	✓	TSOT23-8	Ext. frequency sync
MPQ4560	3.8	55	2	0.14	0.797	Prog	-	-	✓	-	✓	QFN-10 (3x3), SOIC-8E	AEC-Q100 qualified
MP4432 MPQ4432	3.3	36	2.2	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
MPQ4460	3.8	36	2.5	0.12	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3)	Prog. output current
MP2560	4.5	42	2.5	0.12	0.8	Prog	-	-	✓	-	-	QFN-10 (3x3), SOIC-8E	Current mode control
MP2565	4.5	50	2.5	0.12	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	0.792	Prog	-	-	✓	✓	-	QFN-13 (2.5x3)	Current mode control, ext. freq. sync, output line drop compensation
MP4423H MPQ4423H	4	36	3	0.5	0.79	410	✓	-	-	✓	✓	QFN-8 (3x3)	External frequency sync
MP9943/ MP9943A	4	36	3	0.5	0.79	410	✓	-	✓	✓	-	QFN-8 (3x3)	Consumer grade, ext. freq. sync
MP4433 MPQ4433	3.3	36	3	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
MP4570 MPQ4570	4.5	55	3	0.45	1	Prog	✓	✓	✓	✓	✓	TSSOP-20EP	External frequency sync
MP2263	3.3	30	3	0.012	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) - New Product (S) - Sampling Product

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	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
N	**MP8883 MPQ8883**	3.5	45	3	0.6	-	Prog	✓	-	✓	✓	✓	QFN-16 (3x3)	Current mode, I²C, OTP, ext. freq. sync
	MP4462 MPQ4462	3.8	36	3.5	0.12	0.792	Prog	-	-	-	✓	✓	QFN-10 (3x3), SOIC-8E	AEC-Q100 qualified
	MP4473	4.5	36	3.5	0.5	0.815	Prog	✓	✓	✓	✓	✓	QFN-20 (3x4)	High frequency
	MP4430 MPQ4430	3.3	36	3.5	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable FCCM or AAM, prog. soft-start time, good EMI, low-dropout mode
N	**MP4423C MPQ4423C**	4	36	6	0.75	0.792	420/2200	-	-	✓	✓	✓	QFN-16 (3x4)	Spread spectrum, PFM/PWM mode, ext. sync, output discharge
S	**MP4275 MPQ4275**	4	36	6	0.75	0.792	420/2200	✓	-	✓	✓	✓	QFN-16 (3x4)	Spread spectrum, PFM/PWM mode, ext. sync, output discharge, adj. I_{LIMIT}
N	**MP4255 (Dual)**	4	36	6 2x (3A)	0.3	0.4	250/420/ 1100/2100	-	-	✓	✓	✓	QFN-21(4x5)	Dual-channel, spread spectrum, I²C
	MP2491C	4	32	6	0.45	0.5	490	✓	-	✓	✓	-	QFN-13 (2.5x3)	Adjustable current limit, V_{OUT} scaling control
N	**MP2491N**	4	32	6	0.185	0.5	540	✓	✓	✓	✓	-	QFN-13 (2.5x3)	High light-load efficiency
S	**MP8880 MPQ8880**	3.5	60	4	-	-	200 to 2500	✓	-	-	✓	-	QFN- (4x5)	Digital prog. sync, AEC-Q100 qualified
	MP8675	4.5	42	6	0.9	0.808	420	-	-	-	✓	-	SOIC-8E	Synchronizable gate driver, ext. freq. sync

Step-Down Controllers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (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	0.75	0.8	Adj via Ext R_{FREQ}	Ext	TSSOP-20EP, QFN-20 (3x4)	Current mode, duty cycle up to 99.5%, prog. freq.
N	**MP9929**	7	100	0.55	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
	MP2908A	4	60	0.75	0.8	100 to 1000 (Adj)	Ext	TSSOP-20EP, QFN-20 (3x4)	Industrial grade, PG, prog. CCM, AAM, pulse-skip mode

Step-Up Charge Pumps

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	Industrial	Package	Notes
MP9361	2.8	5	0.11	2	1350	✓	TSOT23-6	Fixed 5V_{OUT}, high performance, regulated, int. soft start, OCP, SCP, inrush current limit
MP9218	2.8	5	0.11	2	1350	-	QFN-6 (2x2)	Fixed 5V_{OUT}, high performance, regulated

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Step-Up Contollers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	f_{SW} (kHz)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	Soft Start	Package	Notes
MP3910	5	35	1	30 to 400 (Adj)	0.288	1.237	Ext	MSOP-10	Peak current mode boost PWM controller with prog. frequency, ext. SS, and light load
MP3910A	9	14	1	30 to 400 (Adj)	0.4	1.237	Ext	SOIC-8E	Peak current mode boost PWM controller with prog. frequency, ext. SS, and 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_Q (Typ) (mA)	V_{OUT} Range (V)	f_{SW} (kHz)	Package	Notes
(S) **MP3439**	2.7	5	3.5	0.023	5 to 5.5	2000	WLCSP-20 (1.75x2.1)	Dual-phase, ultra-small
(S) **MP28600**	0.4	5.5	1	0.0004	2.5 to 5.5	1000	SOT563	Ultra-low I_Q
MP3209	2.5	6	0.35	0.64	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	0.46	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	0.22	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	0.0085	1.8 to 5.5	1500	TSOT23-8, QFN-8 (1.5x2.2)	Output disconnect, down mode, sync
MP3120	0.8	5	1.2	0.47	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	0.36	2.5 to 6	550	TSOT23-5	Output disconnect, sync
MP3414	0.6	4	1.8	0.035	1.8 to 4	1000	TSOT23-8	Output disconnect, sync
MP1541	2.5	6	1.9	0.64	3 to 22	1300	TSOT23-5	Internal current limit
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	0.022	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	0.022	1.98 to 5.5	1000	QFN-12 (2x2)	Output disconnect, sync
MP3425	3.1	22	5	0.65	3.1 to 55	300 to 2000 (Prog)	QFN-14 (3x4)	Prog. UVLO and EN hysteresis, industrial grade

(N) - New Product (S) - Sampling Product

Step-Up Converters (Boost)

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
MP3421	1.9	5.5	5.5	0.043	2.5 to 5.5	600	QFN-14 (2x2)	Output disconnect, sync
MP3422	1.9	5.5	6.5	0.043	2.5 to 5.5	600	QFN-14 (3x4)	Output disconnect, sync
MP3426	3.2	22	8.5	0.65	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	0.043	2.5 to 5.5	600	QFN-14 (2x2)	Output disconnect, sync
MP3424A	2	5.5	9.5	0.32	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	0.51	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	0.45	1 to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. UVLO and hysteresis, sync
MP3431	2.7	13	21.5	0.45	1 to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog. input current limit, UVLO, and hysteresis, sync
MP3428A	3	20	25	0.65	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	0.54	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)	0.79	QFN-20 (3x4)	For USB Type-C HDMI comm. interface reference design
MP5507E	2.7	7	30	0.5	5	2 (Max)	0.79	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	0.96	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 **MP5516**	2.65	16	36	0.6 to 2.35	6	1.6	0.6/1.2	QFN-25 (4x4)	E-fuse
N **MP5520**	2.7/2.7	16/5.7	36	0.05 to 0.7	6/6	-	0.6	QFN-37 (5x6)	Dual e-fuses and power-sharing function

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Up LNBs

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)	I^2C, 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_Q (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^2C, 1V to 20.47V V_{OUT} range
	MP8862	2.8	22	2	1	-	500	✓	QFN-16 (3x3)	2A I_{OUT}, 4-switch converter, I^2C, 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^2C
N	**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^2C
	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^2C, 1V to 20.47V V_{OUT} range
N	**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
N	**MP4245**	4	36	5	0.18	0.1/0.4/0.72/1.6	250/350/420 (Selectable)	✓	QFN-21 (4x5)	4-switch USB PD solution converter, spread spec. sel., I^2C and 2-time prog. memory
N	**MP2980**	4	24	Prog	0.07/0.055	Prog	200/300/400/600 (Selectable)	✓	QFN-32 (4x4)	4-switch controller, I^2C, 3V to 20V V_{OUT} range
N	**MP2984**	5	36	Prog	0.07/0.055	Prog	200/300/400/600 (Selectable)	✓	QFN-32 (4x4)	USB Type-C PD controller, I^2C, <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^2C
N	**MP4248 (Hybrid)**	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/600	✓	QFN-20 (3x5)	36V, 140W, int. low-side memory MOSFETs, I^2C
N	**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

N - New Product

LDOs | DC/DC POWER CONVERSION

LDOs

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (mA)	Load Regulation (%/mA)	PSRR at 1kHz (dB)	V_{FB} (Typ) (V)	Dropout Voltage (mV)	Package	Notes
MP2000	1.35	6	150	65	0.001	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	0.001	70	1.22	150 (I_O: 150mA)	TSOT23-5	Low noise, excellent for RF applications, low cost
MP8802	2.7	6.5	250	125	0.001	70	1.22	230 (I_O: 250mA)	TSOT23-5	Excellent for RF applications, low cost
MP20056	2.5	5.5	250	150	0.003	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	0.003	65	-	75 (I_O: 100mA) 220 (I_O: 300mA)	QFN-8 (2x2)	Dual fixed output, P2P with the RT9012
MP2002A	1.35	6.5	500	100	0.001	26	0.5	290 (I_O: 500mA)	QFN-8 (2x3)	Adj. V_{OUT}, PG and EN pins
MP8904	2.5	6.5	500	100	0.001	26	0.496	300 (I_O: 500mA)	QFN-8 (2x3)	Power good output, industrial grade
MP20045	2.5	5.5	1000	110	0.0003	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	0.0003	63	0.8	140 (I_O: 1000mA)	QFN-8 (3x3), SOIC-8E (4.9x6)	-
MP20046	2.7	5.5	2000	75	0.0003	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	DDR2/3/3L/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_Q (Typ) (mA)	Load Regulation (%/mA)	PSRR at 1kHz (dB)	V_{FB} (Typ) (V)	Dropout Voltage (mV)	Package	Notes
MP2016	4	42	30	12	0.003	50	1.23	700 (I_O: 30mA)	QFN-8 (2x3), TSOT23-5	Ideal for automotive applications
MP2015A	2.5	24	150	3.3	0.005	41	1.215	700 (I_O: 150mA)	TSOT23-4, QFN-6 (2x2), QFN-8 (3x3)	EN pin
MP2019	3	40	300	10	0.04	45	1.25	420 (I_O: 300mA)	SOIC-8EP	Industrial grade
MP2014	3	40	500	10	0.03	45	-	750 (I_O: 500mA)	TO252-5	Low I_Q
MP2018	3	16	500	10	0.03	45	-	750 (I_O: 500mA)	TO252-5	Low I_Q, fixed V_{OUT}, power good
MP2005	1	5.5	800	100	0.0005	65	0.5	70 (I_O: 800mA)	QFN-8 (2x3)	Fast transient, 48dB PSRR at 1MHz

SUPERVISORY | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_Q (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 | DC/DC POWER CONVERSION

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	0.35	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
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
N **MPQ1918**	3.6	5.5	100	1.6	5	5	3	20	20	FCQFN-14 (3x3)	GaN/MOSFET driver

N - New Product

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
N **MP5470B**	4	16	0.55 to 7 or V_{IN} x 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
N **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 OR_{OUT}, fast reverse block within 2µs on OR_{OUT}, output OVP for buck-boost
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)

PMICS & MULTIPLE OUTPUTS | DC/DC POWER CONVERSION

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 **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 I²C/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, I²C two-time prog. MTP
N **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 I²C 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 I²C	QFN-22 (3x4)	I²C, 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 I²C	QFN-22 (3x4)	I²C, parallel mode for higher current, one GPIO pin
N **MP5493**	5	36	0.8 to 0.9 x V_{IN}	V_{FB1}: 0.8 V_{FB2}: 1.2	Dual: 2A	550	TSOT23-8	Dual step-down conventer 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: 2A Buck 2: 2A Buck 3: 2A Buck 4: 2A	Prog	QFN-28 (4x4)	I²C, memory, prog. V_{OUT}/f_{SW}/I_{SW} via I²C/memory, config. mini PMIC, four 300mA LDOs, one 10mA RTC LDO
N **MPQ5476**	5.75	15	Buck 1/2/3/4: 0.5 to 2.75	0.5 to 1.3	Prog Buck 1: 6A Buck 2: 6A Buck 3: 6A Buck 4: 6A	500, 750, 1000, 1250 (Prog)	QFN-35 (5x5)	Fully integrated, 12V, I²C telemetry, flexible system configurations
N **MP5431**	2.8	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: 5A Buck 2: 5A Buck 3: 2A	750 to 2000 (Prog)	TQFN-28 (3x4)	DDR5 client DIMM PMIC with digital interface
N **MP5431C**	2.8	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: 6A Buck 2: 6A Buck 3: 2A	750 to 2000 (Prog)	TQFN-28 (3x4)	DDR5 client over-clocking DIMM PMIC with I²C/I³C interface

N - New Product S - Sampling Product

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: 6A Buck 2: 6A	500, 750, 1000, 1250 (Prog)	QFN-26 (4x4)	Fully integrated 12V, I²C, flexible system configurations
S **MP5473**	2.85	16	Prog		Buck 1: 10A Buck 2: 10A Buck-Boost: 1A	500, 750, 1000, 2000 (Prog)	QFN-38 (5x6)	Config. 2.9V to 16V, 3-channel PMIC, dual 10A buck, 4-switch buck-boost converters
S **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: 6A Buck 2: 2A Buck 3: 2A Buck 4: 3A Buck 5: 3A	Prog	QFN-41 (5x5)	One LDO, flexible system setting via I²C
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)	-	Buck 1: 4A Buck 2: 4A Buck 3: 4A Buck 4: 4A LDO_1V: 0.05 LDO_1.8V: 0.05	500 to 1250 (Prog)	FCQFN-35L (5x5)	12V, I²C/I³C interface for DDR5
N **MPQ8895**	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)	-	Buck 1: 6A Buck 2: 6A Buck 3: 6A Buck 4: 6A LDO_1V: 0.05 LDO_1.8V: 0.05	500 to 1250 (Prog)	FCQFN-35L (5x5)	12V, I²C/I³C interface for DDR5
N **MPQ8895F**	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)	-	Buck 1: 6A Buck 2: 6A Buck 3: 6A Buck 4: 6A LDO_1V: 0.05 LDO_1.8V: 0.05	500 to 1250 (Prog)	FCQFN-35L (5x5)	12V, I²C/I³C interface for DDR5

FLYBACK | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	f_{SW} (MHz)	Package	Notes
MP6004	14	80	2.05	0.38	1.99	10 to 200	QFN-14 (3x3)	13W, integrated 180V power switch
MP6005	8	80	0.8V x 160mV / R_{SENSE}	0.45	2	250	MSOP-10	Flyback/forward controller with PSR or SSR, 2A gate, 0.8A sync drivers
MP6001	10	100	2	1	1.21	-	SOIC-8E	15W, integrated 150V power switch
MP6002	10	100	4	1	1.21	-	SOIC-8E	30W, integrated 150V power switch

FULLY INTEGRATED PoE PD SOLUTIONS | DC/DC POWER CONVERSION

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

DC/DC CONTROLLERS FOR PoE | DC/DC POWER CONVERSION

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Package	Notes
MP3900	8.6	12	0.2V / R_{SENSE}	0.18	0.816	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	1.21	55 to 550	SOIC-8E	30W, integrated 150V power switch
MP6004	14	80	2.05	0.38	1.99	10 to 200	QFN-14 (3x3)	13W, integrated 180V power switch
MP6005	8	80	0.8V x 160mV / R_{SENSE}	0.45	2	250	MSOP-10	Flyback/forward controller with PSR or SSR, 2A gate, 0.8A sync drivers
MP3910	5	35	0.185V / R_{SENSE}	0.288	1.237	-	MSOP-10	Peak current mode boost PWM controller with prog. frequency, external SS, and light load
MP3910A	9	14	0.185V / R_{SENSE}	0.4	1.237	-	SOIC-8	Peak current mode boost PWM controller with prog. frequency, external SS and light load

PoE PSE CONTROLLERS | DC/DC POWER CONVERSION

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	Notes
MP3924	44	57	Prog	Prog	802.3af/at	-	DC Disconnect	-	-40 to +125	4	QFN-32 (5x5)	-

PoE PD IDENTITY | DC/DC POWER CONVERSION

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

N - New Product S - Sampling Product

DIGITAL REGULATORS | DC/DC POWER CONVERSION

Synchronous Step-Down Converters with I²C/Digital Interface

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	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)	I²C, TEC current monitor, external sync function
N	**MP8853**	2.85	18	4	0.42	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x3)	I²C prog. FB range, int. telemetry, accurate output voltage/current, readback via I²C
	MP8861	2.85	18	6	0.42	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I²C prog. FB range, int. telemetry, accurate output voltage/current, readback via I²C
	MP8864	4.5	21	4	0.5	0.6 to 1.87V	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 1.87V	600 to 1600	✓	✓	✓	✓	-	QFN-15 (3x3)	Prog. V_{OUT}, power-save mode
	MP8867	4.5	17	8	0.56	0.6	500 to 1500	✓	✓	✓	✓	-	QFN-14 (3x4)	Prog. V_{OUT}, power-save mode
	MP8868	4.5	17	10	0.56	0.6	500 to 1500	✓	✓	✓	✓	-	QFN-14 (3x4)	Prog. V_{OUT}, power-save mode
	MP8869S	2.85	18	12	0.42	0.6 to 1.108 (Adj)	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	V_{OUT} adj. up to 5.5V with FB pin, int. telemetry, accurate output voltage/current, readback via I²C
	MP8796B	4	16	30	2.5	0.6	Prog	✓	-	-	✓	✓	TQFN-25 (4x5)	Digital interface
N	**MP8869N**	2.85	18	12	0.42	0.6 to 1.108 (Adj)	500	✓	✓	✓	✓	✓	QFN-14 (3x4)	I²C interface; high-efficiency, wide-input, synchronous buck converter with integrated telemetry
N	**MP8870**	3	18	15	0.06	Option 1: 0.3 to 1.536 Option 2: 0.6 to 3.072	Prog	✓	✓	✓	✓	✓	QFN-21 (3x4)	I²C, high performance, fast transient response; adjustable frequency, mode, current limit, and I²C address; differential V_{OUT} remote sense
S	**MP2422B**	3.6	24	25	0.2	Option 1: 0.3 to 1.536 Option 2: 0.6 to 3.072	Prog	✓	✓	✓	✓	✓	TLGA-36 (5x5)	I²C version of the MP2422

Synchronous Buck-Boost Converters with I²C/Digital Interface

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	f_{SW} (MHz)	Sync	Package	Notes
	MP8859	2.8	22	3	1	-	500	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch, I²C, 1V to 20.47V V_{OUT} range
	MP8860	2.8	22	1	1	-	500	✓	QFN-16 (3x3)	1A I_{OUT}, 4-switch, I²C, 1V to 20.47V V_{OUT} range
	MP8862	2.8	22	2	1	-	500	✓	QFN-16 (3x3)	2A I_{OUT}, 4-switch, I²C, 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, I²C
	MP4247 (hybrid)	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/600	✓	QFN-20 (3x5)	36V, 100W, low-side, int. memory MOSFETs, I²C
N	**MP4248 (hybrid)**	3.6	36	5	0.775/0.13	0.33/0.5/2	280/420/600	✓	QFN-20 (3x5)	36V, 140W, low-side, int. memory MOSFETs, I²C
N	**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, I²C

ISOLATED PRODUCTS/HIGH POWER | DC/DC POWER CONVERSION

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 VDDI (V)	Driver Output (Max) (V)	Package	Notes
	MP18831	2.5/3/5	Dual-Input Half-Bridge	2	100	GaNFET, IGBT, MOSFET, SiCFET	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	GaNFET, IGBT, MOSFET, SiCFET	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, Inpendent Dual-Channel	2	100	GaNFET, IGBT, MOSFET, SiCFET	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	**MPQ18851**	2.5/3/5	Dual Input, Inpendent Dual-Channel	2	150	GaNFET, IGBT, MOSFET, SiCFET	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	GaNFET, IGBT, MOSFET, SiCFET	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	GaNFET, IGBT, MOSFET, SiCFET	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
N	**MP18811**	3/5	Single-Channel Gate Driver	1	100	GaNFET, IGBT, MOSFET, SiCFET	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
S	**MPQ18811**	3/5	Single-Channel Gate Driver	1	100	GaNFET, IGBT, MOSFET, SiCFET	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

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	**MPQ18913**	Converter	6	5	35	20	No	2x2.5	5	1, Multiple Possible	QFN-10	AEC-Q100, 5MHz high-frequency SiC/IGBT bias supply, automatic resonant frequency detection
S	**MID3W2424**	Isolated Module	3	5	35	24	Yes	10x10	3	1	LGA-6	$24V_{IN}$
S	**MID6W2424**	Isolated Module	6	5	35	24	Yes	10x10	3	1	LGA-6	$24V_{IN}$
S	**MID1W2424AGYE**	Isolated Module	1.5	5	35	24	Yes	10.3x10.3	5	1	SOICW-16	$24V_{IN}$, AEC-Q100
S	**MIE1W0505BGY**	Isolated Module	1	2.6	5.5	5/3.3	Yes	10.3x10.3	3/5	1	SOICW-16	$5V_{IN}$ isolated power module, AEC-Q100
S	**MIE1W0505BGLVH -3R**	Isolated Module	1	2.6	5.5	5/3.3	Yes	4x5	3	1	LGA-12	$5V_{IN}$, tiny package
	MID1W0505AGY	Isolated Module	1	4.5	5.5	5	Yes	10.3x10.3	1.5/3	1	SOICW-16	$5V_{IN}/5V_{OUT}$

N - New Product S - Sampling Product

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
	MID06W0505AGY	Isolated Module	0.6	4.5	5.5	5	Yes	10.3x10.3	1.5/3	1	SOICW-16	$5V_{IN}/5V_{OUT}$
N	**MID06W0503AGY**	Isolated Module	0.6	4.5	5.5	3.3	Yes	10.3x10.3	1.5/3	1	SOICW-16	$5V_{IN}/3.3V_{OUT}$
N	**MID04W0503AGY**	Isolated Module	0.4	4.5	5.5	3.3	Yes	10.3x10.3	1.5/3	1	SOICW-16	$5V_{IN}/3.3V_{OUT}$
N	**MID02W0303AGY**	Isolated Module	0.2	3	3.6	3.3	Yes	10.3x10.3	1.5/3	1	SOICW-16	$3.3V_{IN}/3.3V_{OUT}$

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} (Min) (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
S	**MPQ27911**	2	1/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-8 WB, SOIC-8 NB	AEC-Q100
S	**MPQ27920**	2	2/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-8 WB, SOIC-8 NB	AEC-Q100
S	**MPQ27922**	4	2/2	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
S	**MPQ27931**	4	3/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
S	**MPQ27940**	4	4/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
S	**MPQ27933**	6	3/3	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
S	**MPQ27942**	6	4/2	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
S	**MPQ27951**	6	5/1	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
S	**MPQ27960**	6	6/0	3.75/5	150	13	100	5300/8000	2.5	5.5	SOIC-16 WB, SOIC-16 NB	AEC-Q100
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
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
N	**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)	3.75	2	16	100	5000	3	5.5	SOIC-8 NB	For general consumer and power meter markets

SINGLE-OUTPUT STEP-DOWN MODULES WITH INTEGRATED INDUCTOR
| POWER MODULES

Synchronous (V_{IN} Max ≤ 7V)

Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	I²C/Digital 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	✓	LGA-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	✓	LGA-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	✓	LGA-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

N - New Product P - Preview

Synchronous (V_{IN} Max ≤ 7V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	I²C/Digital Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
	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	✓	EC LGA-19 (3x3)	Adjustable output from 0.6V, FCCM
P	**MPM3816C**	1	2.7 to 5.5	-	✓	-	Internal	✓	EC LGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM
P	**MPM3826C**	2	2.7 to 5.5	-	✓	-	Internal	✓	EC LGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM
P	**MPM3836C**	3	2.7 to 5.5	-	✓	-	Internal	✓	EC LGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM
P	**MPM3846C**	4	2.7 to 5.5	-	✓	-	Internal	✓	EC LGA-10 (2x2.2x1.2)	Adjustable output from 0.4V, FCCM
P	**MPM3812C**	1	2.3 to 5.5	-	-	-	Internal	✓	EC LGA-6 (1.5x2x1)	Adjustable output from 0.6V, ultra-small
P	**MPM3895-25**	25	3 to 7	-	✓	✓	Internal	✓	EC LGA-29 (5x6x2.9)	Adjustable output from 0.5V to 4V, ultra-fast transient response

Synchronous (7V < V_{IN} Max ≤ 24V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	I²C/Digital 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 5μA I_Q
N	**MPM3612-33**	1	3 to 22	✓	✓	-	Internal	✓	LGA (3x3x2)	Ultra-low 5μA I_Q
	MPM3610	1.2	4.5 to 21	✓	-	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, low I_Q
	MPM3610A	1.2	4.5 to 21	✓	✓	-	Internal	✓	QFN-20 (3x5x1.6)	Adjustable output from 0.8V, low I_Q, 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	✓	EC LGA-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
	MPM3695-100	100	3.2 to 16	-	✓	✓	Internal	✓	BGA (15x30x5.18)	Ultra-fast transient response, low ripple, parallelable up to 800A

SINGLE-OUTPUT BUCK MODULES WITH INTEGRATED INDUCTOR
| POWER MODULES

Synchronous (7V < V_{IN} Max ≤ 24V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	I²C/Digital Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
N	**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
P	**MPM3695-20**	25	3 to 16	-	✓	✓	Internal	✓	EC LGA-32 (5x5x2.9)	0.5V to 5.5V V_{OUT} range, ultra-fast transient response

Synchronous (24V_{IN} Max ≤ 36V)

Part Number	I_{OUT} (A)	V_{IN} (V)	Light-Load Efficiency	Power Good	I²C/Digital 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	I²C/Digital Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
N	**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
P	**MPM3519**	10	3.3 to 36	-	✓	✓	Internal	✓	EC LGA-29 (7x7x4.4)	Low EMI

N - New Product S - Sampling Product P - Preview

MULTIPLE-OUTPUT BUCK MODULES WITH INTEGRATED INDUCTOR | POWER MODULES

Synchronous

Part Number	I_{OUT} (A)	# of Outputs	V_{IN} (V)	Light-Load Efficiency	Power Good	I²C/Digital 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
S **MPM54322**	Dual 3A	2	3 to 16	✓	✓	✓	Int/Ext	✓	EC LGA (5x5.5x1.85)	Ultra-fast transient response, ultra-low noise output
S **MPM54522**	Dual 6A	2	3 to 16	✓	✓	✓	Int/Ext	✓	EC LGA (5x6.5x2.76)	Ultra-fast transient response, ultra-low noise output
S **MPM54524**	Quad 5A	4	4 to 16	-	✓	✓	Int/Ext	✓	EC LGA (8x8x2.9)	Ultra-fast transient response
P **MPM54532**	Dual 6A	2	3.3 to 16	✓	✓	✓	Int/Ext	✓	EC LGA (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
N **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 | POWER MODULES

Boost — Boost (V_{IN} Max < 6V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/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 — Boost (V_{IN} Max ≥ 6V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
mEZD41501A-B	1	2.7 to 10	12	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency
mEZD41501A-C	1	2.7 to 13	15	-	-	-	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
mEZD41503A-B	3	2.7 to 10	12	-	-	-	Int	OTP	SiP-6 (27x20)	600kHz, high efficiency

mEZ POWER MODULES | POWER MODULES

Buck | Buck (V_{IN} Max ≤ 24V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (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}
mEZD71202A-A	2	4.5 to 24	1	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{sw}
mEZD71202A-B	2	4.5 to 24	1.2	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{sw}
mEZD71202A-C	2	4.5 to 24	1.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{sw}
mEZD71202A-D	2	4.5 to 24	1.8	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{sw}
mEZD71202A-E	2	4.5 to 24	2.5	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{sw}
mEZD71202A-F	2	4.5 to 24	3.3	-	-	-	Int	OCP, OTP, OVP/UVP, SCP with Hiccup	SiP-3 (10x20)	400kHz f_{sw}
mEZD71202A-G	2	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 | Buck (24V < V_{IN} Max ≤ 36V)

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

mEZ POWER MODULES | POWER MODULES

Buck

Buck (V_{IN} Max > 36V)

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	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
N **mEZD74003L-ADJ**	3	5 to 40	1.23 to 15	-	-	-	Int	UVLO, OCP, OTP, OVP	LGA (11x15)	Synchronous, adjustable V_{OUT}, integrated inductor
N **mEZD94003A-ADJ**	3	5 to 40	1.23 to 15	-	-	-	Int	UVLO, OCP, OTP, OVP	LGA (11x15)	Synchronous, adjustable V_{OUT}, power supply

PoE

Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	I_Q (µA)	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
S **mEZS84802A-A**	2	42 to 57	12	-	✓	✓	Int	OCP, OTP, OVP	Small SIL (56x25)	48V, 25W, PoE
S **mEZS84802A-B**	2	42 to 57	12	-	✓	✓	Int	OCP, OTP, OVP	Small SIL (56x25)	48V, 25W, PoE
S **mEZS84802A-C**	2	37 to 57	5	-	✓	✓	Int	OCP, OTP, OVP	Small SIL (56x25)	48V, 25W, PoE

BOOST & BUCK-BOOST MODULES WITH INTEGRATED INDUCTOR | POWER MODULES

Part Number	Converter Type	I_{OUT} (A)	V_{IN} (V)	I_Q (mA)	Power Good	I^2C Interface	Soft Start	Protection Features (OCP/SCP/UVLO/OTP)	Package	Notes
S **MPM4710**	Buck-Boost	0.6	1.8 to 5.5	0.029	-	-	Int	✓	QFN-13 (2.2x2.6x1.6)	High efficiency, 1MHz f_{SW}, internal compensation
S **MPM4730**	Buck-Boost	5	3.0 to 22	4	✓	✓	Int	✓	LGA-51 (8x14)	High efficiency

N - New Product S - Sampling Product

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators | 5V Synchronous Buck

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	External Sync	FCCM	AAM	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
MPQ2171-AEC1	2.5	5.5	1	4	520	2600	90/50	-	Int	-	✓	-	✓	✓	-	-	TSOT23-8	Output discharge
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
MPQ2172-AEC1	2.5	5.5	2	4.5	520	2600	80/45	-	Int	-	✓	-	✓	✓	-	-	TSOT23-8	Output discharge
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

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators | 5V Synchronous Buck

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (uA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	COT Control	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
MPQ2143-AEC1	2.5	5.5	3	4.8	40	1200	65/40	-	Int	-	-	✓	✓	✓	-	-	TSOT23-8	Output discharge
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
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
(S) **MPQ2176-4000-AEC1**	2.4	6	4	6	8	2200	12/8	-	Int	-	-	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
(S) **MPQ2176-4001-AEC1**	2.4	6	4	6	8	2200	12/8	-	Int	-	✓	-	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
(S) **MPQ2176-5000-AEC1**	2.4	6	5	7	8	2200	12/8	-	Int	-	-	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
(S) **MPQ2176-5001-AEC1**	2.4	6	5	7	8	2200	12/8	-	Int	-	✓	-	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
(S) **MPQ2176-6000-AEC1**	2.4	6	6	8	8	2200	12/8	-	Int	-	-	✓	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
(S) **MPQ2176-6001-AEC1**	2.4	6	6	8	8	2200	12/8	-	Int	-	✓	-	✓	✓	✓	✓	QFN-7 (1.5x2.5)	-
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, CCM only

(N) - New Product (S) - Sampling Product (P) - Preview

Buck Regulators — 5V Synchronous Buck

	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	External Sync	FCCM	AAM	COT Control	100% Duty Cycle	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
	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, CCM only
N	**MPQ2283-AEC1**	2.7	6	6	7	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable f_{SW} and V_{OUT}
S	**MPQ2284-AEC1**	2.7	6	8	9.3	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable f_{SW} and V_{OUT}
S	**MPQ2285-AEC1**	2.7	6	10	12	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable f_{SW} and V_{OUT}
N	**MPQ2286-AEC1**	2.7	6	12	15	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable f_{SW} and V_{OUT}
S	**MPQ2287-AEC1**	2.7	6	14	17	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable f_{SW} and V_{OUT}
S	**MPQ2288-AEC1**	2.7	6	16	19	-	Adj	6/4	-	Int	✓	✓	✓	-	-	✓	✓	QFN-18 (3x4)	Multi-page memory, selectable f_{SW} and V_{OUT}

Buck Regulators — 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_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	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)	-
S	**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)	-
S	**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)	-
S	**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)	-

BUCK REGULATORS | AUTOMOTIVE

Buck Regulators — 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_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	COT Control	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
S	**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)	-
S	**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)	-
S	**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)	-
S	**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)	-
S	**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)	-
S	**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)	-
S	**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)	-
S	**MPQ3520-AEC1**	3	22	1	2.9	463	0.6	2200	260/120	-	Int	-	✓	-	-	✓	✓	QFN-8 (2x2)	-
N	**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

Buck Regulators — 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	External Sync	Spread Spectrum	FCCM	AAM	Zero-Delay PWM (ZDP™)	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

N - New Product P - Preview S - Sampling Product

Buck Regulators — 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	External Sync	Spread Spectrum	FCCM	AAM	Zero-Delay PWM (ZDP™)	Wettable Flank QFN Option	Package	Notes
	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	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
N	**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)	-
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_Q

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Buck Regulators — 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	External Sync	Spread Spectrum	FCCM	AAM	Zero-Delay PWM (ZDP™)	Wettable Flank QFN Option	Package	Notes
	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_Q
	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_Q
	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_Q
	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_Q
	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_Q
N	**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
N	**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
N	**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
N	**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
N	**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
N	**MPQ4275-AEC1**	4	40	6	10	750	0.792	200 to 2400	50/30	-	Int	✓	✓	✓	✓	-	✓	QFN-16 (3x4)	36V, 6A, buck with PG indication
	MPQ4480-AEC1	4.2	40	6	17/22	1000	1	235 to 2200	20/15	-	Int	✓	✓	-	-	-	✓	QFN-25 (4x5)	Adjustable line drop compensation

N - New Product S - Sampling Product

Buck Regulators — 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	External Sync	Spread Spectrum	FCCM	AAM	Zero-Delay PWM (ZDP™)	Wettable Flank QFN Option	Package	Notes
N	MPM3551-AEC1	3.3	42	3	5.8	20	0.8	2200	70/50	-	Int	-	✓	-	✓	-	✓	QFN-20 (4x6)	Module with integrated inductor
N	MPM3551C-AEC1	3.3	42	3	5.8	1200	0.8	2200	70/50	-	Int	-	✓	✓	-	-	✓	QFN-20 (4x6)	Module with integrated inductor
N	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
N	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
N	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
S	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)	-
S	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)	-
S	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)	-
S	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)	-
S	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)	-
N	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, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
N	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, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
N	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, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
N	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, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	-
N	MPQ4371-1001-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, 3.8, 5	Int	✓	✓	✓	✓	✓	✓	QFN-23 (4x5)	Multi-phase, ultra-low I_Q

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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	External Sync	Spread Spectrum	FCCM	AAM	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_Q
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_Q, 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_Q, low-dropout mode
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_Q, 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_Q, 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_Q, 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_Q, 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_Q, 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_Q, 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

N - New Product S - Sampling Product

Buck Regulators — 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_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	Spread Spectrum	FCCM	AAM	Fixed Frequency	Wettable Flank QFN Option	Package	Notes
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_Q
MPQ4436B-AEC1	3.3	50	6	13	18	0.815	2200	48/20	3.3, 5	Ext	✓	-	✓	✓	✓	✓	QFN-20 (4x4)	Multi-phase, low I_Q

Buck Regulators — 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) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	External Sync	FCCM	AAM	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
N	**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
S	**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	**MPQ8880-AEC1**	4	60	4	5.5	8	0.15	150 to 2200	60/43	-	Int	✓	✓	✓	✓	✓	QFN-20 (4x5)	Prog. soft-start time, PG

Buck Regulators — >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) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Soft Start	External Sync	FCCM	AAM	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 REGULATORS | AUTOMOTIVE

Buck Regulators | Buck Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_Q (Typ) (µA)	I_{SD} Limit (Typ) (A)	V_{FB} (V)	f_{SW} (kHz)	Fixed Output Versions	Soft Start	External Sync	FCCM	AAM	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)	Spread spectrum, multi-phase

Buck Regulators | Non-Synchronous Buck

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_{SD} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions	Soft Start	External 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	4.75	25	Dual 2	3.4	2000	1.222	380	180	-	Int	✓	✓	✓	TSSOP-20	Dual output

N - New Product S - Sampling Product P - Preview

BUCK-BOOST REGULATORS | AUTOMOTIVE

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	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	I²C	✓	✓	✓	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	I²C	✓	✓	✓	QFN-34 (4x5)	30W prog. 4-switch converter with advanced protections
P	**MPQ8874-xxxx-AEC1**	2.2	42	1 to 30	4	20	250 to 2200	Buck 10/14, Boost 6/6	I²C	✓	✓	✓	QFN-22 (4x5)	20W prog. 4-switch converter with advanced protections
S	**MPQ8835-xxxx-AEC1**	4.3	22, 36V Transient	1 to 22	5	130	280/420/ 600/1000	2x 20/40	I²C	✓	✓	✓	QFN-22 (4x5)	-
P	**MPQ8834-xxxx-AEC1**	4.3	22, 36V Transient	1 to 22	4	130	280/420/ 600/1000	2x 20/40	I²C	✓	✓	✓	QFN-22 (4x5)	-
P	**MPQ8832-xxxx-AEC1**	4.3	22, 36V Transient	1 to 22	3	130	280/420/ 600/1000	2x 20/40	I²C	✓	✓	✓	QFN-22 (4x5)	-
P	**MPQ8831-xxxx-AEC1**	4.3	22, 36V Transient	1 to 22	2	130	280/420/ 600/1000	2x 20/40	I²C	✓	✓	✓	QFN-22 (4x5)	-
N	**MPQ4262-AEC1 (Hybrid)**	3.6	40	1 to 36	5	130	280/420/600	20/14	I²C	✓	✓	✓	QFN-20 (3x5)	100W, two int. FETs, 98% peak efficiency
N	**MPQ4263-AEC1**	3.6	40	1 to 36	5	135	280/420/ 600	20/14	I²C	✓	✓	✓	QFN-20 (3x5)	100W, two int. FETs, 98% peak efficiency, high-side current sense
S	**MPQ4232-AEC1**	4.3	40	1 to 22	5	130	280/420/ 600/1000	10/14/ 6/6	I²C	✓	✓	✓	QFN-19 (4x5)	4-switch converter with advanced protections

BOOST REGULATORS | AUTOMOTIVE

Boost Regulators | Synchronous Boost

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	I_{SD} 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
S **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

BOOST REGULATORS | AUTOMOTIVE

Boost Regulators — Synchronous Boost

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	I_{SD} 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
N	**MPQ3433-AEC1**	0.8	13	16	15	450	25	1	450	15	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
S	**MPQ3438-xxxx-AEC1**	0.8	10	16	2	150	2	1	2600	2	6/9.5	Adj	✓	✓	QFN-8 (1.5x2)	-

Boost Regulators — 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
S	**MPQ3445-AEC1**	3	42	40	15	Adj	250 to 2500	2	Adj	✓	✓	✓	QFN-21 (5x5)	Multi-phase capable, spread spectrum, digitally prog. I^2C/SPI
S	**MPQ3446-AEC1**	6.5	55	40	15	Adj	250 to 2500	2	Adj	✓	✓	✓	QFN-21 (5x5)	Multi-phase capable, spread spectrum, digitally prog. I^2C/SPI

Boost Regulators — Non-Synchronous Boost

Part Number	V_{IN} (Min) (V)	V_{SW} (Max) (V)	V_{OUT} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	f_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Soft Start	OVP	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

N - New Product S - Sampling Product

PMICS | AUTOMOTIVE

PMICs | 40V PMICs

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	f_{SW} (Max) (MHz)	ADC	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
S	**MPQ70430FS-AEC1**	4.5	65	3	2 Bucks, 1 Boost	Buck: 2/1.5 Boost: 0.25	2.5	-	✓	✓	SPI	✓	QFN-34 (6x6)	ASIL-D, independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning
N	**MPQ70331FS-AEC1**	4.5	42	3	2 Bucks, 1 Boost	Buck: 2/1.5 Boost: 0.25	2.5	-	✓	✓	SPI	✓	QFN-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: 2/1.5 Boost: 0.25	2.5	-	✓	✓	SPI	✓	QFN-34 (6x6)	ASIL-B, independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning
N	**MPQ7902-AEC1**	4.5	42	3	2 Bucks, 1 Boost	Buck: 2/1.5 Boost: 0.25	2.5	-	✓	✓	SPI	✓	QFN-34 (6x6)	Independent voltage supervisor, power FET leakage monitoring, extensive protections, battery failure pre-warning
S	**MPQ70340FS-AEC1**	3.5	40	3	3 Bucks	Buck: 0.6/0.6/1	2.2	✓	✓	✓	Digital Interface /I²C	✓	QFN-15 (2.5x3.5)	ASIL-B PMIC for camera modules powered off-battery
	MPQ2026A-AEC1	3	40	3	2 LDOs, 1 Pre-Boost	LDO: 0.3/0.3 Pre-Boost: 2.5	2.2	✓	✓	-	I²C	✓	QFN-16 (4x4)	Powers phantom active antenna supplies and ADAS modules, pre-boost enables cold/warm crank operation, digitally prog. V_{OUT}
N	**MPQ2022A-AEC1**	3	40	2	2 LDOs	LDO: 0.3/0.3	2.2	✓	✓	-	I²C	✓	QFN-16 (4x4)	Digitally programmable V_{OUT}
N	**MPQ2024A-AEC1**	3	40	2	1 LDO, 1 Pre-Boost	LDO: 0.3 Pre-Boost: 2.5	2.2	✓	✓		I²C	✓	QFN-16 (4x4)	Powers phantom active antenna supplies and ADAS modules, pre-boost enables cold/warm crank operation, digitally prog. V_{OUT}

PMICs | 18V PMICs

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	f_{SW} (Max) (MHz)	Adj Power Sequencing	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
N	**MPQ70240FS-AEC1**	3.5	18	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	✓	✓	✓	Digital Interface/ 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: 1/0.6/1.2 LDO: 0.2	2.2	✓	✓	✓	Digital Interface/ I²C	✓	QFN-15 (2.5x3.5)	ASIL-B, for camera modules, uprated current, powered over coaxial cable
N	**MPQ7929-AEC1**	3.5	18	4	3 Bucks, 1 LDO	Buck: 1/0.6/1.2 LDO: 0.2	2.2	✓	✓	✓	Digital Interface/ I²C	✓	QFN-15 (2.5x3.5)	For camera modules, uprated current, powered over coaxial cable
N	**MPQ7928-AEC1**	3.5	18	4	3 Bucks, 1 LDO	Buck: 0.6/0.6/1 LDO: 0.2	2.2	✓	✓	-	Digital Interface/ I²C	✓	QFN-15 (2.5x3.5)	For camera modules powered over coaxial cable

PMICS | AUTOMOTIVE

PMICs | 5V PMICs

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	Configuration	Current Ratings (A)	f_{SW} (Max) (MHz)	Multi-Phase Outputs	Frequency Spread Spectrum	MPSafe™ (Functional Safety)	Interface	Wettable Flank QFN Option	Package	Notes
S	**MPQ70160FS-AEC1**	2.7	5.5	6	6 Bucks	Buck: 3/3/4/4/1/1	2	✓	✓	✓	Digital Interface /I²C	✓	QFN-32 (5x5)	ASIL-D, Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
S	**MPQ70161FS-AEC1**	2.7	5.5	6	6 Bucks	Buck: 1/1/2/2/1/1	2	✓	✓	✓	Digital Interface /I²C	✓	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	✓	✓	✓	Digital Interface /I²C	✓	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	✓	✓	✓	Digital Interface /I²C	✓	QFN-32 (5x5)	ASIL-B, Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/OVP and OCP, thermal shutdown
S	**MPQ70700FS-AEC1**	2.8	5.5	5	5 LDOs	LDO: 0.35/0.35/ 0.35/0.35/ 0.35	-	-	-	✓	Digital Interface /I²C	✓	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
S	**MPQ70701FS-AEC1**	2.8	5.5	5	5 LDOs	LDO: 0.35/0.35/ 0.35/0.35/ 0.35	-	-	-	✓	Digital Interface /I²C	✓	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
S	**MPQ7970-AEC1**	2.8	5.5	5	5 LDOs	LDO: 0.35/0.35/ 0.35/0.35/ 0.35	-	-	-	✓	Digital Interface /I²C	✓	TQFN-24 (5x5)	Q&A watchdog timer, 2x ext. voltage monitoring, 4x GPIOs, prog. sequencing, adj. V_{OUT}, UVP/OVP and OCP, thermal shutdown
	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	-	-	-	I²C	✓	QFN-16 (4x4)	MTP prog., selectable time slot sequencing, extensive adj. and protections for bucks, dedicated RTC for LDOs, COT
	MPQ7930-AEC1	2.7	5.5	6	6 Bucks	Buck: 3/3/4/4/1/1	2	✓	✓	-	Digital Interface/ I²C	✓	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	✓	✓	-	Digital Interface/ I²C	✓	QFN-32 (5x5)	Prog. sequencing, integrated adj. compensation network, hiccup UVP/OVP and OCP, thermal shutdown
S	**MPQ7932-AEC1**	2.7	5.5	6	6 Bucks	Buck: 3/3/4/4/1/1	2	✓	✓	-	Digital Interface/ I²C	✓	QFN-32 (5x5)	Q&A watchdog timer, prog. sequencing, ext. voltage monitoring, hiccup UVP/ OVP and OCP, thermal shutdown

N - New Product S - Sampling Product

AUTOMOTIVE COMPUTE POWER | AUTOMOTIVE

Automotive Compute Core Power | Multi-Phase Digital Controllers

Part Number	Control Method	System Interface	Memory Type	# of Rails	# of Phases	V_{CC} (Typ) (V)	I_Q (Typ) (mA)	f_{SW} (Max) (kHz)	Wettable Flank QFN Option	Package	Notes
MPQ2977-AEC1	Digital Control	Digital Interface/I²C	MTP	2	6	5	15	1250	✓	TQFN-40 (6x6)	-
MPQ2967-AEC1	Digital Control	Digital Interface/I²C	MTP	2	4	5	20	2000	✓	TQFN-40 (6x6)	MPSafe™, ASIL-D
N **MPQ2946-AEC1**	Digital Control	Digital Interface/I²C	MTP	3	8	5	20	2000	✓	TQFN-48 (7x7)	-

Automotive Compute Core Power | Intelli-Phase™ DrMOS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Load Current (A)	V_{CC} (Typ) (V)	I_Q (Typ) (mA)	Integrated Current Sense	Integrated Temp Sense	Fault Indicator	Wettable Flank QFN Option	Package	Notes
MPQ86940-AEC1	3	22	40	3.3	25	✓	✓	✓	✓	QFN-21 (4x5)	-
MPQ86960-AEC1	3	22	50	5	25	✓	✓	✓	-	LGA-38 (5x6)	-
N **MPQ86760-AEC1**	3	6	45	3.3	25	✓	✓	✓	✓	QFN-21 (4x5)	-

LINEAR REGULATORS | AUTOMOTIVE

5V LDOs

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	Power Good	Package	Notes
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	-
MPQ8904-AEC1	2.5	6.5	500	0.005	26	0.5	140	✓	0.5 to 5	-	✓	QFN-8 (2x3)	-
MPQ20051-AEC1	2.5	5.5	1000	0.0003	63	0.8	130	✓	0.8 to 5	-	-	QFN-8 (3x3)	-

LINEAR REGULATORS | AUTOMOTIVE

40V LDOs

	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	Power Good	Package	Notes
	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)	-
N	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	-
N	MPQ2019A-AEC1	3	40	300	0.04	45	1.25	10	✓	1.2 to 36	-	✓	SOIC-8EP	-
N	MPQ2022A-AEC1	3	40	300	0.3	53	1	35	✓	1 to 13.6	-	✓	QFN-16 (4x4)	-
S	MPQ2023-AEC1	4.5	40	300	0.3	80	1	20	✓	1 to 13.6	-	✓	QFN-16 (4x4), QFN-14 (3x3)	-
N	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)	-
S	MPQ71000FS-AEC1	4.5	40	300	0.3	80	1	20	✓	1 to 13.6	-	✓	QFN-16 (4x4), QFN-14 (3x3)	-
P	MPQ20082-AEC1	3	40	500	0.04	45	1.25	10	✓	1.2 to 15	3.3, 5	✓	MSOP-8EP	-
	MPQ2029-AEC1	3	40	450	0.04	45	1.25	10	✓	1.2 to 15	-	✓	SOIC-8EP	-

DDR MEMORY POWER | AUTOMOTIVE

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

LED LIGHTING | AUTOMOTIVE

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
MPQ3364-AEC1	3.5	42	Boost	4	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I²C	-	QFN-24 (4x4)	Three selectable IC addresses
MPQ3367-AEC1	3.5	42	Boost	6	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I²C	-	QFN-24 (4x4), TSSOP-28EP	Spread spectrum, thermal derating, fault pin, rich protection features
MPQ3367A-AEC1	3.5	42	Boost	6	150	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I²C	-	QFN-24 (4x4)	MPQ3367-AEC1 features, three prog. addresses
MPQ3369-AEC1	3.5	42	Boost	6	100	200 to 2200	PWM, Analog, Mixed	Open, Short	2.5%	I²C	-	QFN-24 (4x4), TSSOP-28EP	Spread spectrum, thermal derating, fault pin, rich protection features

N - New Product S - Sampling Product

Tell-Tale

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	Channel Current Matching (%)	Interface	Wettable Flank QFN Option	Package	Notes
MPQ3324-AEC1	4	18	Linear	8	100	-	PWM, Analog	Open, Short	2%	I²C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital config.
MPQ3326-AEC1	4	18	Linear	16	50	-	PWM, Analog	Open, Short	2%	I²C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital config.
N **MPQ3326A-AEC1**	4	18	Linear	16	80	-	PWM, Analog	Open, Short	2%	I²C	✓	QFN-24 (4x4)	Independent channel control, daisy-chainable, digital config.

LED Drivers for Illumination & Signaling

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	Spread Spectrum	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
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

LED LIGHTING | AUTOMOTIVE

LED Drivers for Illumination & Signaling

	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	Spread Spectrum	Fault Pin	Wettable Flank QFN Option	Package	Notes
	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	**MPQ7210-AEC1**	4.5	65	Dual Buck	2	Adj	235/235	PWM, Analog	220, 420, 1000	Short	✓	✓	✓	QFN-26 (5x5)	Dual buck outputs, UVP, OCP, failsafe (FS) pin, SPI interface

Multi-Channel LED Drivers & Matrix Managers for Dynamic Lighting

	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	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^2C	✓	QFN-24 (4x4)	6-bit analog dimming per channel, 12-bit PWM dimming per channel, refresh signal output
S	**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
	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
N	**MPQ7240-AEC1**	4.5	65	Matrix Manager	12	1500	-	PWM, Analog	Open, Short	-	-	SPI	✓	QFN-40 (6x6)	12 independently controlled LED dimming switches, 10-bit or 8-bit PWM dimming, LED open/short protection, thermal shutdown
N	**MPQ7241-AEC1**	4.5	65	Matrix Manager	12	1500	-	PWM, Analog	Open, Short	-	-	Differential Interface	✓	QFN-40 (6x6)	12 independently controlled LED dimming switches, 10-bit or 8-bit PWM dimming, LED open/short protection, thermal shutdown

N - New Product S - Sampling Product

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	Spread Spectrum	Fault Pin	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
N	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
S	MPQ7232-AEC1	4.2	40	Buck	6	5	45/30	PWM	2400	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

MONITORING & SUPERVISION | AUTOMOTIVE

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
N	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	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	MPQ79530FS-AEC1	3	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ 3-channel 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™ 3-channel ASIL-B voltage monitor with prog. features via I²C
S	MPQ79540FS-AEC1	1	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	MPSafe™ 1-channel 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™ 1-channel ASIL-B voltage monitor with prog. features via I²C
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	MPQ7942-AEC1	5	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	QM voltage monitor with prog. features via I²C
S	MPQ7943-AEC1	3	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	QM 3-channel voltage monitor with prog. features via I²C
S	MPQ7944-AEC1	1	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	QM 1-channel voltage monitor with prog. features via I²C
S	MPQ7944W-AEC1	1	2.7	5.5	Adj	±0.5	560	Adj	QFN-16 (3x3)	1-channel voltage monitor with prog. features via I²C, watchdog timer

MONITORING & SUPERVISION | AUTOMOTIVE

Watchdog Timers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Reset Threshold (V)	Short Window Mode	Long Window Mode	Disable Input	I_Q (Typ) (µA)	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
N	**MPQ79700FS-AEC1**	12	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I²C
S	**MPQ79701FS-AEC1**	12	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I²C
S	**MPQ79710FS-AEC1**	10	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I²C
S	**MPQ79711FS-AEC1**	10	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I²C
S	**MPQ79720FS-AEC1**	8	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I²C
S	**MPQ79721FS-AEC1**	8	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I²C
S	**MPQ79730FS-AEC1**	6	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-D, prog. features via I²C
S	**MPQ79731FS-AEC1**	6	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	MPSafe™, ASIL-B, prog. features via I²C
S	**MPQ7960-AEC1**	12	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I²C
S	**MPQ7961-AEC1**	10	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I²C
S	**MPQ7962-AEC1**	8	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I²C
S	**MPQ7963-AEC1**	6	2.7	5.5	✓	✓	✓	✓	QFN-24 (4x4)	QM, prog. features via I²C

Current-Sense Monitors

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Output Mode	Gain	I_Q (Typ) (µA)	PSRR (dB)	Bandwidth (kHz)	Package	Notes
MPQ8112-AEC1	2.7	60	Voltage	Fixed 50V/V	300	90	700	TSOT-23	-
MPQ8112A-AEC1	2.7	60	Current	Adj	300	90	700	TSOT-23	-
MPQ8113-AEC1	2.7	60	Voltage	Fixed 50V/V	300	90	700	TSOT-23	Feature to limit max V_{OUT}
MPQ8113A-AEC1	2.7	60	Current	Adj	300	90	700	TSOT-23	Feature to limit max V_{OUT}

N - New Product S - Sampling Product

USB & WIRELESS CHARGING | AUTOMOTIVE

USB PD Solutions — Buck-Boost for USB PD

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

USB PD Solutions — Buck for USB PD

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	USB PD	Battery Short Protection	Frequency Spread Spectrum	Int USB Switch	Line Drop Compensation	I^2C	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

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_Q (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
	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 MPQ5031, meets PowerShare specs
N	**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 & WIRELESS CHARGING | AUTOMOTIVE

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, Huawei FCP Mode	Type-C DFP (w/o PD)	Type-A Mode	Load-Shedding	Battery Short Protection	Int USB Switch	Line Drop Compensation	USB Discharge	Package	Notes
N	MPQ4242-AEC1	4	40	Single	3	0.1	Selectable	✓	✓	✓	✓	✓	-	✓	✓	-	✓	✓	QFN-22 (4x5)	Buck-boost int., supports PD3.0/ QC4+ BC1.2/QC3+FCP protocols
N	MPQ4242B-AEC1	4	40	Single	3	0.1	Selectable	✓	✓	✓	✓	✓	-	✓	✓	-	✓	✓	QFN-22 (4x5)	Buck-boost int., supports PD3.1/ QC4+ BC1.2/QC3+FCP protocols
N	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	USB Discharge	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	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_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 (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	Fault Indication	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	6	36	Single	3	0.3	420	✓	✓	✓	-	-	✓	✓	✓	✓	-	✓	✓	✓	-	✓	-	✓	QFN-19 (3x5)	Smaller size, cost-effective

N - New Product S - Sampling Product

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_Q (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	Int USB Switch	Line Drop Compensation	USB Discharge	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_Q (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
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
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

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_Q (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	Notes
MPQ4480-AEC1	4.2	40	6	1	Selectable	✓	✓	✓ (Adj CC Limit)	✓	✓	✓	QFN-25 (4x5)	-
(N) **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_Q (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)	-

USB & WIRELESS CHARGING | AUTOMOTIVE

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

	Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	I_{OUT} (A)	I_Q (Typ) (mA)	f_{SW} (kHz)	Battery Short Protection	Frequency Spread Spectrum	Line Drop Compensation	I^2C	EN Shutdown Discharge	Load-Shedding Send Alert	Package	Notes
N	**MPQ4262-AEC1 (Hybrid)**	3.6	40	5	0.13	Selectable	✓	✓	✓	✓	✓	✓	QFN-20 (3x5)	36V, 100W, two int. FETs, 98% peak efficiency
N	**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
S	**MPQ4232**	4.3	40	5	0.13	Selectable	✓	✓	✓	✓	✓	✓	QFN-19 (4x5)	5A, 4-switch converter with advanced protections

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_Q (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 | AUTOMOTIVE

Half-Bridge Pre-Drivers

Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	V_{SW} (Max) (V)	HS Gate Drive (Max) (V)	# of Channels	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn-Off/On Delay (ns)	Wettable Flank Option	Package	Notes
MPQ1922-AEC1	4	15	100	15	1	3	4	-	-	100	✓	SOIC-8E, QFN-10 (4x4)	Gate driver, int. current-sense amplifier
MPQ1923-AEC1	5	17	100	17	1	7	8	7.2	5.5	0.02	✓	QFN-10 (4x4), QFN-8 (4x4), SOIC-8	High-frequency gate driver
MPQ6528-AEC1	5	60	60	13	2	0.8	1	-	-	-	✓	QFN-28 (4x5)	H-bridge gate driver

N - New Product S - Sampling Product

Three-Phase Pre-Drivers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{SW} (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 (ns)	Wettable Flank Option	Package	Notes
MPQ6531-AEC1	5	60	60	14	3	0.8	1	-	-	-	✓	QFN-28 (4x5)	For BLDC motors
MPQ6532-AEC1	5	60	60	14	3	0.8	1	-	-	-	✓	QFN-28 (4x5)	Hall inputs, for BLDC
MPQ6533-AEC1	6	40	40	13	3	0.8	1	-	-	-	✓	QFN-32 (5x5)	Three-channel, automotive, LDO regulator, current-sense amp

Half-Bridge Drivers (Integrated MOSFET)

Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	# of Channels	$R_{DS(ON)}$ (mΩ)	Standby I_Q (µA)	Peak Output Current (A)	Rise Time (µs)	Fall Time (µs)	Turn-Off/On Delay (µs)	Open-Load Detection	Serial Interface	Wettable Flank Option	Package	Notes
MPQ8039-AEC1	7.5	28	1	100	2.5	9	0.02	0.02	0.07	-	-	✓	SOIC-8E	General-purpose, high frequency, for audio amps wireless charging, etc.
MPQ6519-AEC1	3	28	2	130	370	5	0.2	0.2	-	✓	-	-	QFN-19 (4x4)	H-bridge current regulator
MPQ6523-AEC1	7	28	3	1100	1.5	0.9	20	20	60	✓	✓	✓	QFN-24 (4x4)	Independent half-bridge control, comprehensive protections, daisy-chainable, serial data interface up to 3MHz
MPQ6524-AEC1	7	28	4	1100	1.5	0.9	20	20	60	✓	✓	✓	QFN-24 (4x4)	Independent half-bridge control, comprehensive protections, daisy-chainable
MPQ6526-AEC1	7	28	6	1100	1.8	0.9	20	20	60	✓	✓	✓	QFN-24 (4x4), QFN-24 (5x5)	Independent half-bridge control, comprehensive protections, daisy-chainable
MPQ6527-AEC1	5.5	40	10	1300	1	0.8	27	20	75	✓	✓	-	TSSOP-28EP	Independent half-bridge control, comprehensive protections, daisy-chainable, SPI interface up to 5MHz
MPQ6610-AEC1	4	55	1	220	1300	3	-	-	-	✓	-	-	TSOT23-8, SOIC-8	Power driver
N **MPQ6612A-AEC1**	4	40	2	103	30	5	0.04	0.02	0.42	-	-	✓	QFN-18 (3x4)	H-bridge with current sense, IN1 and IN2 inputs
MPQ6615-AEC1	4.75	40	2	22	1	8	-	-	-	-	-	✓	TQFN-26 (6x6)	H-bridge motor driver, int. current sense
MPQ6626-AEC1	5.5	40	6	1300	1	0.8	27	20	75	✓	✓	-	TSSOP-28EP	Independent half-bridge control, comprehensive protections, daisy-chainable, SPI interface up to 5MHz
MPQ6628-AEC1	5.5	40	8	1300	1	0.8	27	20	75	✓	✓	-	TSSOP-28EP	Independent half-bridge control, comprehensive protections, daisy-chainable, SPI interface up to 5MHz

MOTOR DRIVERS | AUTOMOTIVE

Stepper Motor Drivers

Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	# of Channels	$R_{DS(ON)}$ (mΩ)	Standby I_Q (µA)	Peak Output Current (A)	Step Mode	Control Interface	Wettable Flank Option	Package	Notes
S **MPQ6600L-AEC1**	4.5	35	2	365	2.5	1.5	1, ½, ¼, ⅛	Indexer	✓	QFN-24 (4x4)	Bipolar, microstepping, int. current sense and latch-off

Integrated BLDC Motor Drivers

Part Number	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	# of Channels	$R_{DS(ON)}$ (mΩ)	Standby I_Q (µA)	Peak Output Current (A)	Control Interface	Wettable Flank Option	Package	Notes
MPQ6541-AEC1	4.75	40	3	30	1	8	PWM/ ENBL	✓	TQFN-26 (6x6)	Three-phase power stage, PWM/ENBL inputs, int. current sense
MPQ6541A-AEC1	4.75	450	3	30	1	8	HS/LS	✓	TQFN-26 (6x6)	Three-phase power stage, HS/LS inputs, int. current sense

LOAD SWITCHES | AUTOMOTIVE

Load Switches | 5V Load Switches

Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	Load Current (A)	$R_{DS(ON)}$ (mΩ)	I_Q (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)
N **MPQ5074-AEC1**	3	5.5	3	10	0.22	✓	✓	✓	QFN-13 (2.5x3)
N **MPQ5075A-AEC1**	3	5.5	5	10	0.22	✓	✓	✓	QFN-13 (2.5x3)
N **MPQ5077A-AEC1**	3	5.5	7	10	0.22	✓	✓	✓	QFN-13 (2.5x3)

Load Switches | 40V 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
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
N **MPQ5871-AEC1**	5	42	1	60	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-channel, smart HSS, ±4% high-accuracy current-sensing
N **MPQ5872-AEC1**	5	42	2	60	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-channel, smart HSS, ±4% high-accuracy current-sensing
N **MPQ5873-AEC1**	5	42	3	60	0.5	✓	✓	✓	QFN-8 (2x2.5)	1-channel, smart HSS, ±4% high-accuracy current-sensing

N - New Product S - Sampling Product P - Preview

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) (µA)	Power Good	Int Boost Converter	Package	Notes
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
S **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
S **MPQ5857-AEC1**	3.3	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**	3	80	-80	800/1300	20	8	✓	✓	QFN-16 (3x4)	Back-to-back FET control, AC rectification up to 100kHz, OCP/OVP and monitoring, ISO 7637/ISO 16750 compliant

Analog Switches

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Switch Current (A)	$R_{DS(ON)}$ (mΩ)	I_Q (Typ) (mA)	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, 0.45Ω dual SPDT analog switches, separate control inputs

CLASS-D AUDIO AMPLIFIERS | AUTOMOTIVE

Class-D Audio Amplifiers

Part Number	V_{IN} (Min) (V)	V_{IN} (Abs Max) (V)	P_{OUT} (W)	$R_{DS(ON)}$ (mΩ)	Idle Current (Typ) (mA)	f_{SW} (kHz)	Efficiency (%)	THD+N at 1kHz Input (%)	PSRR (dB)	SNR (dB)	Output Noise (µV)	Type	Load Diagnostic	Selectable Gain	Power Limiter	Digital Interface	Wettable Flank QFN Option	Package	Notes
N **MPQ7795-AEC1**	3.9	42	24.5 @ 14.4V, 4Ω Load	150	6.5	330kHz to 2.2MHz	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

POSITION & CURRENT SENSORS | AUTOMOTIVE

Integrated Current Sensors

Part Number	Current Range (A)	V_{CC} (V)	Over-Temperature Accuracy	Temp Range (°C)	Isolation Voltage (V_{RMS})	Working Voltage(V_{DC})	Reinforced Isolation (V_{RMS})	Bandwidth (kHz)	Over-Current Detection (OCD)	Voltage Reference	Primary Conductor Resistance (mΩ)	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
N **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, ratiomentric analog output
S **MCQ1810**	±5, ±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, low primary conductor resistance, bi- or unidirectional sensing, ratiometric or absolute analog output, OCD with 1µs response time
S **MCQ1812**	±5, ±10, ±20, ±30, ±40, ±50, ±60, ±70, ±80	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	1.0	Planned	SOIC-16W	AEC-Q100, coreless, bi- or unidirectional sensing, ratiomentric or absolute analog output, prog. OCD with 1µs response time
N **MCQ1823**	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	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 **MCQ2803**	±50, ±100, ±150, ±200, ±250, ±300, ±400	3.3, 5	3.5%	-40 to +150	5000	1000	475	150/ 300	-	-	0.1	Planned	5-Pin THM, 5-Pin SMT	AEC-Q100, bi- or unidirectional sensing, ratiometric or absolute analog output
S **MCQ2804**	±50, ±100, ±150, ±200, ±250, ±300, ±400	3.3, 5	3.5%	-40 to +150	5000	1000	475	150/ 300	✓	-	0.1	Planned	6-Pin THM, 6-Pin SMT	AEC-Q100, bi- or unidirectional sensing, ratiometric or absolute analog output, OCD with 1µs response time

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)	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
N **MAQ600**	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 & BW, 0.6° INL (<0.1° INL thru user calibration with 32-word lookup table), no speed error
N **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
N **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
N **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 - New Product S - Sampling Product P - Preview

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	**MAQ79010**	10-Bit to 14.5-Bit	SPI, SSI, I²C, 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, I²C, 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 polatity protection, robust against parasitic stray fields >4kA/m DC, or 5mT
S	**MAQ900**	10-Bit to 14.5-Bit	SPI, SSI, I²C, 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

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	**MVQ310**	12-Bit	I²C, 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

ELECTRIFICATION | AUTOMOTIVE

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 VDDI (V)	Driver Output (Max) (V)	Package	Notes
N	**MPQ18831-AEC1**	2.5/3/5	Dual-Input Half-Bridge	2	100	GaN FET, IGBT, MOSFET, SiC 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, Inpendent Dual-Channel	2	100	GaN FET, IGBT, MOSFET, SiC 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	GaN FET, IGBT, MOSFET, SiC 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	GaN FET, IGBT, MOSFET, SiC 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

ELECTRIFICATION | AUTOMOTIVE

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
N	**MPQ18913-AEC1**	LLC Resonant	Converter	6	5	35	20	-	QFN-10	5	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	✓	SOICW-16	5	1	10.3x10.3	$24V_{IN}$, AEC-Q100
N	**MIE1W0505BGY-AEC1**	LLC Resonant	Isolated Module	1	2.6	5.5	5/3.3	✓	LGA-12	3	1	4x5	$4V_{IN}$, AEC-Q100

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	**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
S	**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
S	**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
S	**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
S	**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
S	**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
S	**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
S	**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
S	**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)	V_{SW} (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
N	**MPQ1918-AEC1**	3.6	5.5	100	8	1	1.6	5	0.005	0.003	0.020	✓	FCQFN-14 (3x3)	100V half-bridge GaN/MOSFET driver
	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 time (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	-

N - New Product S - Sampling Product P - Preview

EASYPOWER™ AC BUCK CONVERTERS | AC/DC POWER CONVERSION

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
P **MP161C**	4	30	265	Non-Isolated	13.5	700	10	SOIC-16	Integrated 660mA 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
N **MP183**	3.5	30	265	Non-Isolated	17.5	700	3	TSOT23-5, SOIC-8	Zero standby buck regulator

FLYBACK | AC/DC POWER CONVERSION

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	Prog. fixed frequency

FLYBACK | AC/DC POWER CONVERSION

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
	HFC0500	Ext FET	85	305	Controller	65	Fixed Frequency	700	-	SOIC8-7A	HV start-up, X-capacitor discharge, brown-in/brownout
N	**HFC0502**	Ext FET	85	305	Controller	65	Fixed Frequency	700	-	SOIC8-7A	Supports DC input, HV start-up, X-capacitor discharge, brown-in/brownout
	HFC0511	Ext FET	85	305	Controller	130	Fixed Frequency	700	-	SOIC8-7A	Ultra-low no-load power consumption
P	**HFC0580**	Ext FET	85	305	Controller	130	Fixed Frequency	700	-	SOIC-14	Interleaved flyback controller, valley-locked QR function
S	**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
P	**HFC0652**	Ext FET	85	305	Controller	500	Variable Frequency	700	-	SSOP10	High f_{SW} QR ZVS flyback controller for high-efficiency, high-density adapters, GaN driver
N	**HF300**	Ext FET	85	305	Controller	200	Variable Frequency	200		SOT23-6	Ideal clamper controller for high-frequency flybacks
	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
	HF920B	10	85	440	Regulator	150	Peak Current	900	15	SOIC14-11, SOIC8-7A	Improved EMI performance from the HF920
	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
N	**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
	HF500-40-C05T	40	85	305	Regulator	65	Fixed Frequency	700	0.9	PDIP8-7B	Integrated 700V MOSFET
S	**HFG610-35**	35	85	305	Regulator	300	Variable Frequency	700	0.36	QFN-21 (5x6)	Integrated 700V GaN HEMT
S	**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
S	**HFG610A-45**	45	85	305	Regulator	300	Variable Frequency	700	0.27	QFN (7x7)	Integrated 700V GaN HEMT, line compensation and external OTP
S	**HFG610A-65**	65	85	305	Regulator	300	Variable Frequency	700	0.16	QFN (7x7)	Integrated 700V GaN HEMT, line compensation and external OTP

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

N - New Product S - Sampling Product P - Preview

All-In-One Flyback with Primary-Side & Secondary-Side Controllers

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	Varible/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
N **MPX2003**	Ext FET	85	305	Controller	140	CCM/QR	650	-	SOICW-16	Higher-frequency version of the MPX2002
P **MPX2005**	Ext FET	$9V_{DC}$	$600V_{DC}$	Controller	250	CCM/QR	650	-	SOICW-16	All-in-one solution, supports low DC input applications
S **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

LLC 600V HALF-BRIDGE DRIVERS | AC/DC POWER CONVERSION

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 freq. shift and latch, other features same as the HR1001B
HR1002	85	305	Voltage Mode	Ext FET	LLC Resonant	✓	✓	SOIC-16	Higher switching freq. 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
P **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 | AC/DC POWER CONVERSION

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^2C/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^2C/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

PFC + LLC COMBO CONTROLLERS | AC/DC POWER CONVERSION

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

PFC | AC/DC POWER CONVERSION

	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 Scheme	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 size 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, adj. 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
P	**MP44020**	85	305	0.18/2.1	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	Enhanced PF and THD
N	**MP44060**	85	305	0.25/5	-600/+1000	CrM/DCM Multi-Mode	Boost	SOIC-8	High frequency, based on the MP44018-A
	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

N - New Product S - Sampling Product P - Preview

SYNCHRONOUS RECTIFIERS | AC/DC POWER CONVERSION

Flyback Topology (Fast Turn-Off, Intelligent)

Part Number	Type	V_{DD} (Min) (V)	V_{DD} (Max) (V)	f_{SW} (Max) (kHz)	Drain Rating (V)	Regulation Voltage (mV)	Typical $R_{DS(ON)}$ (mΩ)	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	V_{CC} 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	V_{CC} 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
MP6960	Controller	8	24	400	180	70	Ext FET	SOIC-8	Integrated CC/CV controller
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
N **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, ideal diode
MP6954	Ideal diode	8	24	250	100	70	14	SOIC-8	12V, 3A, ideal diode
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
N **MP6980**	Controller	4	13	150	180	40	Ext FET	TSOT23-6	Thermally improved version based on the MP6908A
N **MP6982**	Controller	4.5	13	600	180	40	Ext FET	TSOT23-6	SR driver voltage opmized for GaN FET, based on the MP6908A

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
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

SYNCHRONOUS RECTIFIERS | AC/DC POWER CONVERSION

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
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
MP6928A	Controller	500	200	35	Ext FET	Dual	SOIC-8	LL mode configuration to avoid ripple at light-load steady state
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
P **MP6933**	Ideal diode	500	40	45	3.5	Dual	SOIC-16E	Dual-channel ideal diode
P **MP6941**	Ideal diode	500	60	45	9	Single	QFN-12 (5x6)	Single-channel ideal diode
S **MP6943**	Ideal diode	500	60	45	5.5	Single	QFN-12 (5x6)	Single-channel ideal diode

N - New Product S - Sampling Product P - Preview

AC/DC ISOLATED | LED LIGHTING

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
N **MP4057A**	85	305	Ext FET	Buck-Boost	MSOP-10, SOIC-14	Single-chip/single-stage solution for smart LED/wireless modules
N **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 (15µA)
MP44011	85	305	Ext FET	PFC Boost/Buck-Boost	SOIC-8	Offline PFC, boundary conduction, harmonic injection function (reduced capacitance and inductor size 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

AC/DC NON-ISOLATED | LED LIGHTING

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	Offline LED controller, integrated high-voltage LDO, analog and PWM dimming
MP4054	85	305	Ext FET	Buck-Boost	SOT23-8	Offline LED controller, active PFC
MP4054A	85	305	Ext FET	Buck-Boost	SOT23-8	Offline LED controller, active PFC, NTC, PWM dimming
MP4056	85	305	Ext FET	Buck-Boost	SOIC-8, MSOP-10, SOIC-14	TRIAC dimming, offline LED controller, 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 | LED 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
N **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
N **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

N - New Product

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Configuration	I_{OUT} (A)	Max Efficiency (%)	Typ Frequency	Package	Notes
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 | LED LIGHTING

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 | BATTERY MANAGEMENT

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
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, 25mΩ R_{SNS}
S **MP2615D**	3.95	18	23	2.1	4.05/4.13	-	1000	Standalone	-	Li-Ion, Li-Polymer	QFN-16 (3x3)	Batt. NTC monitor, 47mΩ 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	4.055/4.2	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

S - Sampling Product

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
MP2696A	4	11	16	3.6	3.6 to 4.45	3.6	700/1200	I²C	-	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}
MP2696B	4	11	16	3.6	3.6 to 4.45	3.6	700/1200	I²C	-	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	I²C	-	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	I²C	✓	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	I²C	✓	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	I²C/ 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	I²C/ 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	I²C/ 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	I²C/ 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
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	I²C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	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
MP2720A	3.9	6.3	26	2.2	3.6 to 4.6	3	750 to 1500	I²C	✓	Li-Ion, Li-Polymer	QFN-22 (2.5x3.5)	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

SINGLE-CELL SWITCHING CHARGERS | BATTERY MANAGEMENT

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	I²C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	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
MP2722	3.9	16	26	5	3.6 to 4.6	3	750 to 1500	I²C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	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, integrated USB Type-C DRP CC controller
S **MP2724**	3.9	6.3	26	2.2	3.6 to 4.6	3	750 to 1500	I²C	✓	Li-Ion, Li-Polymer, LiFePO4	QFN-22 (2.5x3.5)	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, integrated USB Type-C sink mode
MP2770	4	16	20	6	3.6 to 4.45	3.65	500 to 1000	I²C	✓	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}
S **MP2772**	4	13.5/ 6.5	26	2	3.6 to 4.6	1.5	1500/2000	I²C	✓	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

LINEAR CHARGERS | BATTERY MANAGEMENT

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
MPQ5480	4	6	7	7.8 to 127	4.10	✓	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	4.20	-	Standalone	Li-Ion, Li-Polymer	TSOT23-5	Charging indication
MP2660	4	5.85	13	8 to 500	3.6 to 4.5	✓	I²C	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	✓	I²C	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	✓	I²C	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	✓	I²C	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	✓	I²C	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

N - New Product S - Sampling Product

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
MP2602	3.2	5.8	28	85 to 1000	4.20	-	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	4.20	-	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	4.20	-	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	4.20	-	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	4.20	-	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	4.20	-	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	4.20	-	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	4.20	-	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
MP2607	4.51	6.27	13	300 to 1500	4.20	✓	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	4.20	-	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	4.20	-	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	4.20	✓	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	✓	I²C	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
MP2665A	3.8	6.1	21	16 to 896	3.6 to 4.545	✓	I²C	Li-Ion, Li-Polymer, LiFePO4	QFN-12 (2.5x3)	Batt. OCP/UVP, batt. NTC monitor, V_{IN} reg., NVDC power path, OTP memory, shipping mode, thermal reg., USB compatible
N **MP2700**	4.375	13.5	26	20 to 1000	2.4 to 4.5	-	Standalone	NiMH, Li-Ion, Li-Polymer, LiFePO4	WLCSP-8 (1.05x1.6)	Adapter present, charging indication, charge OCP, JEITA batt. NTC monitor, V_{IN} reg., input current reg., OTP memory, thermal reg.
N **MP2702**	4.375	13.5	26	20 to 1000	2.4 to 4.5	-	Standalone	NiMH, Li-Ion, Li-Polymer, LiFePO4	QFN-10 (2x2.5)	Adapter present, charging indication, charge OCP, JEITA batt. NTC monitor, V_{IN} reg., input current reg., OTP memory, thermal reg., EN control
N **MP2703**	4.375	13.5	26	20 to 1000	2.4 to 4.5	-	Standalone	NiMH, Li-Ion, Li-Polymer, LiFePO4	QFN-10 (2x2.5)	Adapter present, charging indication, charge OCP, JEITA batt. NTC monitor, V_{IN} reg., input current reg., OTP memory, thermal reg., battery diagnostics
N **MP2710**	3.35	5.85	21	8 to 456	3.6 to 4.545	✓	I²C	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 | BATTERY MANAGEMENT

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
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^2C/ 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, 25mΩ R_{SNS}
MP2672A	3.65	5.75	14	2	8.2 to 8.9	600/ 1200	Sync Boost	2	I^2C/ 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^2C	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
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^2C	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

N - New Product S - Sampling Product

	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
	MP2651	4	22	28	6	3.4 to 18.68	500 to 1200	Buck-Boost	1, 2, 3, 4	I²C/ 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	I²C/ 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
S	**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	I²C/ Standalone	Li-Ion, Li-FePO4, Li-Polymer	TQFN-30 (4x5)	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
N	**MP2761**	4	22	28	6	7.2 to 18.68	375 to 770	Buck-Boost	2, 3, 4	I²C/ Standalone	Li-Ion, Li-FePO4, Li-Polymer	TQFN-30 (4x5)	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

CC & CV CONTROLLERS | BATTERY MANAGEMENT

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

INPUT PROTECTION | BATTERY MANAGEMENT

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/OCP, batt. OVP, OTP, fault indication
MP2671	2.7	5.65	30	1.5	Battery Protection	QFN-12 (3x4)	Input OVP/OCP, batt. OVP, OTP, prog. current limit
MP2676	2.8	5.8	30	1.6	Battery Protection	QFN-8 (2x2)	Input OVP/OCP, batt. OVP, OTP, integrated charging FET
MP2678	2.8	9.9	30	1.7	Battery Protection	QFN-8 (2x2)	Input OVP/OCP, batt. OVP, OTP, 5V LDO mode

FUEL GAUGES | BATTERY MANAGEMENT

Part Number	# of Series Cells	Chemistry	Communication Interface	External SOC Indication	Pack SOC Accuracy [1]	Cell Impedance Monitoring	Thermal Model [2]	Features	Package
MPF42790	2 to 16	Li-Ion, Li-Polymer	I²C	LED	±3%	-	-	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	I²C	LED	±2.5%	✓	✓	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	I²C	-	±3%	-	-	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	I²C	LED	±3%	-	-	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	I²C	-	±3%	-	-	Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)
(N) **MPF42793**	2 to 16	LiFePO4	I²C	LED	±5%	✓	✓	Pack and cell SOC and SOH, max available power, charge and runtime, lifetime logging	TQFN-32 (4x4)

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.

(N) - New Product (S) - Sampling Product

BATTERY MANAGEMENT SYSTEMS: MONITORING & PROTECTION
| BATTERY MANAGEMENT

Part Number	# of Series Cells	Battery Pack Voltage (V)	CHG/DSG FET Driver	Cell Balancing	Coulomb Counting	Discharge Soft Start	Load/Charger Detection	Cell Voltage Synchronized w/ Current Measurement	OT Cell Voltage Accuracy (-20°C to +60°C)	Communication Interface	Interrupt Alert	Diagnostic Features	Package	Notes
MP2787	7 to 16	18 to 86	-	✓	✓	-	-	✓	±7.5mV	I²C/SPI + CRC	✓	Open-Wire Detection and Watchdog	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	7 to 10	18 to 75	High-Side	✓	✓	✓	✓	✓	±7.5mV	I²C/SPI + CRC	✓	Open-Wire Detection and Watchdog	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	✓	✓	✓	✓	✓	±7.5mV	I²C/SPI + CRC	✓	Open-Wire Detection and Watchdog	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	✓	✓	✓	✓	✓	±7.5mV	I²C/SPI + CRC	✓	Open-Wire Detection and Watchdog	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
N **MP2795**	7 to 16	18 to 86	High-Side	✓	✓	✓	✓	-	±10mV	I²C/SPI + CRC	✓	Open-Wire Detection and Watchdog	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	✓	-	✓	-	-	±12.5mV	I²C/SPI + CRC	✓	Open-Wire Detection and Watchdog	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	✓	✓	✓	✓	✓	±7.5mV	I²C/SPI + CRC	✓	Open-Wire Detection and Watchdog	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

ACTIVE BALANCERS | BATTERY MANAGEMENT

Part Number	Topology	Cell Chemistry	# of Series Cells	Maximum Net Balance Current (A)	Minumum V_{IN} (V)	Maximum V_{IN} (V)	CU Quiescent Current (µA)	CL Quiescent Current (µA)	Efficiency V_{CELL} = 3V	OVP/UVP	OCP/UCP	Control Interface	Special Features	Package
N **MP2640**	Bidirectional, Buck-Boost	Li-ion, Li-Po, LiFePO4	2	2.5	3.8	16	30	4	89%	✓	✓	2-Pin	Integrated FETs, temp reg. and monitoring, 5V for local isolator power and logic pull-up	QFN-26 (4x4)
N **MP2641**	Bidirectional, Buck-Boost	Li-ion, Li-Po, LiFePO4	2	2	3.8	16	25	4	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, LiFePO4	2	1	3.8	16	25	4	92.8%	✓	✓	2-Pin	Integrated FETs, temp reg. and monitoring, 5V for local isolator power and logic pull-up	QFN-26 (4x4)

WHITE LED DRIVERS | DISPLAY POWER AND CONTROL

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 nine 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^2C 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
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

S - Sampling Product

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
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 stress
MP24830 -C470	4.5	90	Ext FET	1	Ext FET	0.201	50 to 365	✓	Buck-Boost	SOIC14, 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, I²C
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, I²C
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)	-
S **MP3359**	3.5	40	45	4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-20 (3x4)	120mA/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, I²C interface (3x IC addresses)
S **MP3365**	3.5	36	45	4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I²C interface (3x IC addresses) 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
MP3385A	4.5	33	Ext FET	4	Ext FET	-	100 to 900	✓	Boost	QFN-20 (4x4)	I²C, max 80V V_{LEDx_PIN}, max 300mA/ch, replaces the MP3385
MP3385B	4.5	33	Ext FET	4	Ext FET	-	100 to 900	✓	Boost	QFN-20 (4x4)	I²C, max 80V V_{LEDx_PIN}, 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_PIN}, 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_PIN}, 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

WHITE LED DRIVERS | DISPLAY POWER AND CONTROL

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
MP4658	6	36	80	4	-	1.2	20 to 350	✓	Pre-Flyback	SOIC-16	Max 80V V_{LEDx_PIN}, 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^2C interface
(S) **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
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^2C 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)	Sync boost, max 50mA/string, I^2C interface
MP3376A	3	30	37.5	8	2.5	-	350 to 2400	✓	Sync Boost	QFN-24 (4x4)	Sync boost, max 50mA/string, I^2C interface
MP3371	2.7	30	45	8	1.8/2.5	-	350/500 /650/800 /950/1200	✓	Sync Boost	QFN-24 (4x4)	Sync boost, I^2C, 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)	Sync boost, I^2C, linear smooth dimming, multi-dimming mode, phase-shift function during PWM dimming
MP3391	9	35	Ext FET	8	Ext FET	0.45	150 to 500	✓	Boost	TSSOP-28EP, SOIC-28	Max 55V V_{LEDx_PIN}, 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_PIN}, 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
(S) **MPQ3359-AEC1**	3.5	40	45	4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-20 (3x4)	120mA/ch, separated PWM and analog dimming pin
(S) **MPQ3359A-AEC1**	3.5	40	45	1/2 /3/4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-20 (3x4)	120mA/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^2C (3x IC addresses)
(S) **MPQ3365-AEC1**	3.5	36	45	4	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I^2C (3x IC addresses) for dimming, NTC
(S) **MPQ3365A-AEC1**	3.5	36	45	5	7	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I^2C (3x IC addresses) for dimming, NTC

(N) - New Product (S) - Sampling Product

	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
	MPQ3369-AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4), TSSOP28-EP	100mA/ch, PWM/analog/mixed dimming, I²C interface
	MPQ3367-AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4), TSSOP28-EP	150mA/ch, PWM/analog/mixed dimming, I²C interface
	MPQ3367A-AEC1	3.5	36	45	6	3	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	150mA/ch, PWM/analog/mixed dimming, I²C (3x IC addresses)
S	**MPQ3366C-AEC1**	3.8	36	Ext FET	6	Ext FET	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	Max 50V V_{LEDx_PIN}, 200mA/ch, PWM/ analog/mixed dimming, I²C (4x IC addresses) for dimming, NTC
S	**MPQ3368-AEC1**	3.8	36	Ext FET	8	Ext FET	-	200 to 2200	✓	Boost/ SEPIC	QFN-24 (4x4)	Max 50V V_{LEDx_PIN}, 200mA/ch, PWM/ analog/mixed dimming, I²C (4x IC addresses) for dimming, NTC

RGB LED DRIVERS | DISPLAY POWER AND CONTROL

	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
N	**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	I²C (16 Config Addresses)	Charge Pump	QFN-14 (2x2)	Configurable phase shift
	MP3320B	2	5.5	5.4	4	102	P-Dim, A-Dim	I²C (16 Config Addresses)	Sync Boost	QFN-14 (2x2)	Configurable phase shift
	MP3324	4	16	18	8	100	P-Dim, A-Dim	I²C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MP3326	4	16	18	16	50	P-Dim, A-Dim	I²C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MP3326A	4	16	22	16	80	P-Dim, A-Dim	I²C (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	16	22	4	300	P-Dim, A-Dim	I²C (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	I²C (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	I²C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MPQ3326A-AEC1	4	16	22	16	80	P-Dim, A-Dim	I²C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
	MPQ3326B-AEC1	4	16	22	16	80	P-Dim, A-Dim	I²C (10 Config Addresses)	Current Source	QFN-24 (4x4)	LED current slew rate, phase shift
S	**MPQ3321-AEC1**	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

LCD & OLED DISPLAY POWER AND DRIVERS | DISPLAY POWER AND CONTROL

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 VOP; 1x Neg Charge Pump for VON	V_{OP} Up to 5.8V	VOP: 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	Config 4.6V to 5.2V V_{ELVDD} (Default 4.6V), Config -1.4V to -6.4V V_{ELVSS} (Default -4V), Config 5V to 7.7V V_{AVDD} (Default 5.8V)	ELVDD: 1.5A, ELVSS: 3A, AVDD: 0.5A	One Wire	TQFN-16 (3x3)	AMOLED display power supply
S **MPQ5613A-AEC1**	2.7	12	1x Boost for VDDP, 1x 0.05A Pos Charge Pump for VGH, 1x 0.05A Neg Charge Pump for VGL, 1x 0.025A VCOM Buffer	Config 6V to 21.9V V_{DDP}, Config 5V to 35V V_{GH}, Config -15.9V to 0V V_{GL}, Config 0V to 12V V_{COM}	VDDP: 3A	I^2C	QFN-28 (4x5)	LCD bias power supply

LED PHOTO FLASH DRIVERS | DISPLAY POWER AND CONTROL

Photo Flash

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	I_{OUT} (Max) (A)	f_{SW} (kHz)	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^2C, 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^2C, synchronous rectification, output disconnect
MP3336	2.7	5.5	5.5	2	4	1/2/3/4	Boost	WLCSP-20 (1.6x2)	Flash LED driver with 2A/ch, I^2C interface
MP3336A	2.7	5.5	5.5	2	4	1/2/3/4	Boost	WLCSP-20 (1.6x2)	Flash LED driver with 2A/ch, I^2C interface, NFC application

S - Sampling Product

ANALOG INPUT | CLASS-D AUDIO

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	Exposed pad
MPQ7731	9.5	18	30	90	0.1 @ 1W	60	TSSOP-20F	Exposed pad, industrial grade
MP7741	9.5	36	10	94	0.02 @ 1W	58	QFN-10 (3x3)	Single-ended, fully integrated audio 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, fully integrated audio 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 audio amplifier, exposed pad
MP7720	9.5	24	20	93	0.04 @ 1W	60	SOIC-8, PDIP-8	20W amplifier
MP7722	9.5	24	20 (2x)	93	0.06 @ 1W	60	TSSOP-20F	Single-ended audio amplifier, exposed pad
MP7748S	9.5	36	30 (2x)	94	0.02 @ 1W	59	TSSOP-28EP	2x 30W single-ended or 1x 60W BTL amplifier
MP7751	5	26	20 (2x)	92	0.06 @ 1W	60	TSSOP-28EP	BTL amplifier
MP7752	5	18	15 (2x)	90	0.06 @ 1W	60	TSSOP-28EP	Filterless BTL amplifier
MP7758	5	18	15 (2x)	90	0.06 @ 1W	60	TSSOP-28EP	Idle channel I_Q, <10mA analog input options
MP7770	9.5	36	45 (2x)	95	0.03 @ 1W	60	TSSOP-28F	2x 45W single-ended or 1x 90W BTL amplifier, 8.5A peak, exposed pad

PWM INPUT | CLASS-D AUDIO

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 | 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
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	H-bridge driver
N MP1930	9	18	1	10	11	HS/LS	QFN-26 (7x7)	Half-bridge, 18V to 75V V_{IN} for MOSFETs
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
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
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
N MP6612	4	40	2	5	70 + 45	IN1/IN2	TSSOP-20EP	H-bridge with current sense
N MP6612D	4	40	2	5	70 + 45	ENBL/DIR	TSSOP-20EP	H-bridge with current sense
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
S 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
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
S MPQ6619-AEC1	2.7	28	2	5	65 + 65	IN1/IN2	QFN-19 (4x4)	H-bridge, AEC-Q100 qualified

N - New Product S - Sampling Product

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
N **MPQ6612A-AEC1**	4	40	2	5	63 + 40	IN1/IN2	QFN-18 (3x4)	H-bridge with current sense, AEC-Q100 qualified
N **MPQ6612A-D-AEC1**	4	40	2	5	63 + 40	ENBL/DIR	QFN-18 (3x4)	H-bridge with current sense, 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

BRUSHLESS DC PRE-DRIVERS | MOTOR DRIVERS

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
S **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

BRUSHLESS DC PRE-DRIVERS | MOTOR DRIVERS

	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
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
N	**MP6539C**	8.5	14	80	3	1/0.8	HS/LS	QFN-28 (4x5)	3-phase pre-driver
S	**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
N	**MPQ6641-AEC1**	6	40	-	2	1/0.8	EN/IN, SPI	QFN-32 (5x5)	H-bridge pre-driver with SPI, AEC-Q100 qualified
	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, AEC-Q100 qualified
S	**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	**MPQ6539C-AEC1**	8.5	14	80	3	1/0.8	HS/LS	QFN-28 (4x5)	3-phase pre-driver, AEC-Q100 qualified

STEPPER MOTOR DRIVERS | 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, ½	Parallel	QFN-16 (3x3)	Bipolar stepper
MP6507	2.7	15	0.7	500 + 500	1, ½	Parallel	TSSOP-16EP, QFN-16 (3x3), QFN-16 (4x4), TSSOP-16	Bipolar stepper
MP6508	2.7	18	1.2	250 + 250	1, ½	Parallel	TSSOP-16EP, QFN-16 (4x4)	Bipolar stepper
MP6508A	2.7	18	1.2	250 + 250	1, ½	Parallel	QFN-16 (3x3)	Bipolar stepper
MP6509	2.7	18	1.2	250 + 250	1, ½	Parallel	TSSOP-20EP	Bipolar stepper, current attenuation
MP6518	8	35	1.5	300 + 300	1, ½, ¼, ⅛,	Indexer	TSSOP-28EP	Bipolar stepper, microstepping
MP6520	8	32	1.5	300 + 300	1, ½, ¼, ⅛	Indexer	QFN-28 (4x5)	Stepper, integrated MOSFETs
MP6600	4.5	35	1.5	195 + 170	1, ½, ¼, ⅛	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense
MP6600L	4.5	35	1.5	195 + 170	1, ½, ¼, ⅛	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense, latch-off function

N - New Product S - Sampling Product

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
MP6504	8	32	2	220 + 220	1, ½, ¼, ⅛	Indexer	QFN-28 (4x5)	Bipolar stepper, microstepping
MP6501A	8	35	2.5	220 + 220	1, ½, ¼, ⅛	Indexer	TSSOP-28EP	Bipolar stepper, microstepping
MP6601	4.5	35	2.5	170 + 150	1, ½, ¼	Parallel	QFN-24 (5x5), TSSOP-28EP	Stepper, internal current sense
MP6500	4.5	35	2.5	195 + 170	1, ½, ¼, ⅛	Indexer	QFN-24 (5x5), TSSOP-28	Bipolar stepper, microstepping, internal current sense
MP6500A	4.5	35	2.5	195 + 170	1, ½, ¼, ⅛	Indexer	TSSOP-28EP, QFN-24 (5x5)	Bipolar stepper, microstepping, internal current sense, programmable voltage
MP6500L	4.5	35	2.5	195 + 170	1, ½, ¼, ⅛	Indexer	QFN-24 (5x5)	Bipolar stepper, microstepping, internal current sense, latch-off function
MP6602	4.5	35	4	60 + 30	1, ½, ¼, ⅛, 1/16, 1/32	SPI, Indexer	QFN-25 (4x5)	Stepper, stall detection
S **MP6603**	8	55	5	65 + 50	1, ½, ¼, ⅛	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	-	I²C	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
S **MPQ6600L-AEC1**	4.5	35	1.5	195 + 170	1, ½, ¼, ⅛	Indexer	QFN-24 (4x4)	Bipolar stepper, microstepping, internal current sense, latch-off function, AEC-Q100 qualified

INTEGRATED BLDC MOTOR DRIVERS | 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 amplifers
MP6543	3	12	3	2	110 + 110	ENBL/PWM	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifers
MP6543A	3	12	3	2	110 + 110	HS/LS	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifers
MP6543B	3	12	3	2	110 + 110	PWM/DIR, 3 Hall Inputs	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifers
MP6543H	3	22	3	2	110 + 110	ENBL/PWM	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifers
MP6543H-A	3	22	3	2	110 + 110	HS/LS	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifers
MP6543H-B	3	22	3	2	110 + 110	PWM/DIR, 3 Hall Inputs	QFN-24 (3x4)	3-phase power stage with 3 current-sense amplifers
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

INTEGRATED BLDC MOTOR DRIVERS | 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
MP6546	3.5	22	3	3	150 + 150	I²C Hall, Angle Sensor Inputs	QFN-20 (3x4)	3-phase power stage,1MHz I²C 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 amplifers
MP6540A	5.5	35	3	3	50 + 50	HS/LS	QFN-26 (5x5)	3-phase power stage with 3 current-sense amplifers
MP6540H	5.5	50	3	5	45 + 45	ENBL/PWM	QFN-26 (5x5)	3-phase power stage with 3 current-sense amplifers
MP6540HA	5.5	50	3	5	45 + 45	HS/LS	QFN-26 (5x5)	3-phase power stage with 3 current-sense amplifers
MP6541	4.75	40	3	8	15 + 15	ENBL/PWM	TQFN-26 (6x6)	3-phase power stage with 3 current-sense amplifers
MP6541A	4.75	40	3	8	15 + 15	HS/LS	TQFN-26 (6x6)	3-phase power stage with 3 current-sense amplifers
S **MPQ6547-AEC1**	4	30	3	1.5	60 + 50	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 | 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)	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
MP6517	3.3	18	2	1.2	850	Integrated	TSOT23-6, TSOT23-6-SL	Single-phase BLDC, prog. speed curve, open-loop control
MP6517A	3.3	16	2	2	850	Integrated	TSOT23-6, TSOT23-6-SL	Single-phase BLDC, prog. speed curve, open-loop control
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
S **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
S **MP6653**	5.5	32	2	1.2	960	Integrated	TSOT23-6-L, TSOT23-6-SL	Single-phase BLDC, prog. speed curve, open-/closed-loop control

N - New Product S - Sampling Product

	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
	MP6616	3.3	18	2	4	100	Integrated	QFN-10 (2x3)	Single-phase BLDC, prog. speed curve, open-/closed-loop control
	MP6616A	3.3	18	2	4	100	Integrated	QFN-10 (2x3)	I_{STB} ≤ 0.5mA compared to the MP6616
S	**MP6616B**	3.3	18	2	4	100	Integrated	QFN-10 (2x3)	ESD enhanced
	MP6651	3.3	18	2	4	QFN: 100, SOIC: 215	Integrated	QFN-10 (2x3), SOIC-8SL	Single-phase BLDC, prog. speed curve, open-loop control
S	**MP6617**	3.3	18	2	6	64	Integrated	QFN-10 (2.5x3)	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
	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
N	**MP6631A**	3.6	35	3	3	160	External	QFN-26 (3x4)	FG output function at the align stage, based on the MP6631H
S	**MP6631B**	3.6	35	3	3	160	External	QFN-26 (3x4)	Minimum soft-start time less than 0.5s, based on the MP6631H
S	**MP6637**	2.5	5.5	3	1	350	Sensorless	SOT583	3-phase BLDC, open-loop speed control
S	**MP6636**	3.3	18	3	4	190	Sensorless	SOIC-8EP, TQFN-10 (4x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control
N	**MP6632A**	6	50	3	External FETs	External FETs	External	QFN-32 (4x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control, trapezoid drive
N	**MP6632**	6	50	3	External FETs	External FETs	External	QFN-32 (4x4)	3-phase BLDC, prog. speed curve, open-/closed-loop control, sine drive
S	**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	3-phase BLDC, prog. speed curve, open-loop control, AEC-Q100 qualified
S	**MPQ6653-AEC1**	5.5	35	2	1.2	960	Integrated	TSOT23-6, TSOT23-6-SL	Single-phase BLDC, prog. speed curve, open-/closed-loop control, AEC-Q100 qualified
S	**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
S	**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 | MOTOR DRIVERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	f_{SW} (MHz) (KHh)	Interface	ADC (Bits)	Special Features	Grade	Package	Notes
MP6570	3	3.6	80	SPI, I²C, RS-485	10	Up to 32 Prog Slave Addresses	Catalog	QFN-32 (4x4)	3-phase BLDC controller with high-accuracy angular sensor
MP6710	3	3.6	80	RS-485, External I/O	12	Up to 127 Prog Slave Addresses	Catalog	TQFN-32 (4x4)	Servo motor controller

MAGALPHA™ MAGNETIC POSITION SENSORS | POSITION SENSORS

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
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
N **MA600**	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 & BW, 0.6° INL (<0.1° INL thru user calibration with 32-word lookup table), no speed error
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	0.5µA to 10	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	0.5µA to 10	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
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
N **MAQ600**	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 & BW, 0.6° INL (<0.1° INL thru user calibration with 32-word lookup table), no speed error
N **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
N **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
N **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 - New Product S - Sampling Product P - Preview

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, I²C, 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
P	**MA980**	9-Bit to 13-Bit	SPI	3.3, 5	25µA	8+ (No Upper Limit)	5 to 160k	0	-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, I²C, 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, I²C, 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 polatity protection, robust against parasitic stray fields >4kA/m DC, or 5mT
S	**MAQ900**	10-Bit to 14.5-Bit	SPI, SSI, I²C, 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

MAGVECTOR™ 3D MAGNETIC POSITION SENSORS | POSITION SENSORS

	Part Number	Data Length	Interface	Supply Voltage (V)	Supply Current (mA)	Sensing Range (mT)	Conversion Time (µs)	Temperature Range (°C)	Package	Notes
N	**MV300**	12-Bit	I²C, 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	I²C, 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	I²C, 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

POSITION SENSOR MAGNETS | POSITION SENSORS

Part Number	Magnetization	Geometry	Material	OD (mm)	ID (mm)	Height (mm)	Air Gap Min (mm)	Air Gap Max (mm)	Radial Tolerance (mm)	Notes
MAG10-2C-30.25	Diametrical	Cylinder	NdFeB, Grade N35SH	3	-	2.5	0	2	0.1	-
MAG10-2C-40.25	Diametrical	Cylinder	NdFeB, Grade N35SH	4	-	2.5	0	2.6	0.2	Standard size, cost-effective
MAG10-2C-50.25	Diametrical	Cylinder	NdFeB, Grade N35SH	5	-	2.5	0	3.1	0.2	Standard size, cost-effective
MAG10-2C-60.25	Diametrical	Cylinder	NdFeB, Grade N35SH	6	-	2.5	0	3.6	0.3	-
MAG10-2C-80.25	Diametrical	Cylinder	NdFeB, Grade N35SH	8	-	2.5	0	4.5	0.4	-
MAG10-2R-50.12.25	Diametrical	Ring	NdFeB, Grade N35SH	5	1.25	2.5	1	1.4	0.4	Accurate application
MAG10-2R-60.15.25	Diametrical	Ring	NdFeB, Grade N35SH	6	1.5	2.5	1.3	1.6	0.6	Accurate application
MAG10-2R-80.20.25	Diametrical	Ring	NdFeB, Grade N35SH	8	2	2.5	2	2.5	0.8	Accurate application
MAG10-2B-40.25	Axial	Half-Cylinder	NdFeB, Grade N35SH	4	-	2.5	0	2.1	<0.1	Low field emission
MAG10-2B-50.25	Axial	Half-Cylinder	NdFeB, Grade N35SH	5	-	2.5	0	2.7	<0.1	Low field emission
MAG10-2B-60.25	Axial	Half-Cylinder	NdFeB, Grade N35SH	6	-	2.5	0	3.2	<0.1	Low field emission
MAG10-2B-80.25	Axial	Half-Cylinder	NdFeB, Grade N35SH	8	-	2.5	0	4.2	0.1	Low field emission

INTEGRATED CURRENT SENSORS | CURRENT SENSORS

	Part Number	Current Range (A)	V_{CC} (V)	Over-Temp Accuracy	Temperature Range (°C)	Isolation Voltage (V_{RMS})	Working Voltage (V_{RMS})	Reinforced Isolation (V_{RMS})	Bandwidth (kHz)	Over-Current Detection	Voltage Reference	Primary Conductor Resistance (mΩ)	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
N	**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, ratiomentric analog output
S	**MCQ1810**	±5, ±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, low primary conductor resistance, bi- or unidirectional sensing, ratiometric or absolute analog output, OCD with 1µs response time
S	**MCQ1812**	±5, ±10, ±20, ±30, ±40, ±50, ±60, ±70, ±80	3.3, 5	2%	-40 to +150	5000	1100	560	350	✓	✓	1.0	Planned	SOIC-16W	AEC-Q100, coreless, bi- or unidirectional sensing, ratiomentric or absolute analog output, prog. OCD with 1µs response time
N	**MCQ1823**	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	100	N/A	-	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	**MCQ2803**	±50, ±100, ±150, ±200, ±250, ±300, ±400	3.3, 5	3.5%	-40 to +150	5000	1000	475	150/ 300	-	-	0.1	Planned	5-Pin THM, 5-Pin SMT	AEC-Q100, bi- or unidirectional sensing, ratiometric or absolute analog output
S	**MCQ2804**	±50, ±100, ±150, ±200, ±250, ±300, ±400	3.3, 5	3.5%	-40 to +150	5000	1000	475	150/ 300	✓	-	0.1	Planned	6-Pin THM, 6-Pin SMT	AEC-Q100, bi- or unidirectional sensing, ratiometric or absolute analog output, OCD with 1µs response time
	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
N	**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**	±5, ±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, low primary conductor resistance, bi- or unidirectional sensing, ratometric or absolute analog output, prog. OCD with 1µs response time
S	**MCS1812**	±5, ±10, ±20, ±30, ±40, ±50, ±60, ±70, ±80	3.3, 5	2%	-40 to +125	5000	1100	560	350	✓	✓	1.0	Planned	SOIC-16W	Coreless, bi- or unidirectional sensing, ratiomentric or absolute analog output, prog. OCD with 1µs response time
N	**MCS1823**	±5, ±10, ±20, ±30, ±40, ±50	3.3, 5	2.5%	-40 to +125	100	N/A	-	120	✓	-	0.6	✓	QFN-12 (3x3)	Coreless, bi- or unidirectional sensing, ratiometric or absolute analog output, immune to external magnetic field gradients
N	**MCS1826**	±15.5, ±31	3.3 to 5	3%	-40 to +125	100	N/A	-	120	✓	-	0.6	✓	QFN-12 (3x3)	Coreless, bidirectional sensing, ratiometric analog output, immune to external magnetic field gradients
S	**MCS2803**	±50, ±100, ±150, ±200, ±250, ±300, ±400	3.3, 5	3.5%	-40 to +150	5000	1000	475	150/ 300	-	-	0.1	Planned	5-Pin THM, 5-Pin SMT	Bi- or unidirectional sensing, ratiometric or absolute analog output
S	**MCS2804**	±50, ±100, ±150, ±200, ±250, ±300, ±400	3.3, 5	3.5%	-40 to +150	5000	1000	475	150/ 300	✓	-	0.1	Planned	6-Pin THM, 6-Pin SMT	Bi- or unidirectional sensing, ratiometric or absolute analog output, prog. OCD with 1µs response time

N - New Product S - Sampling Product P - Preview

ANALOG SWITCHES | PRECISION ANALOG

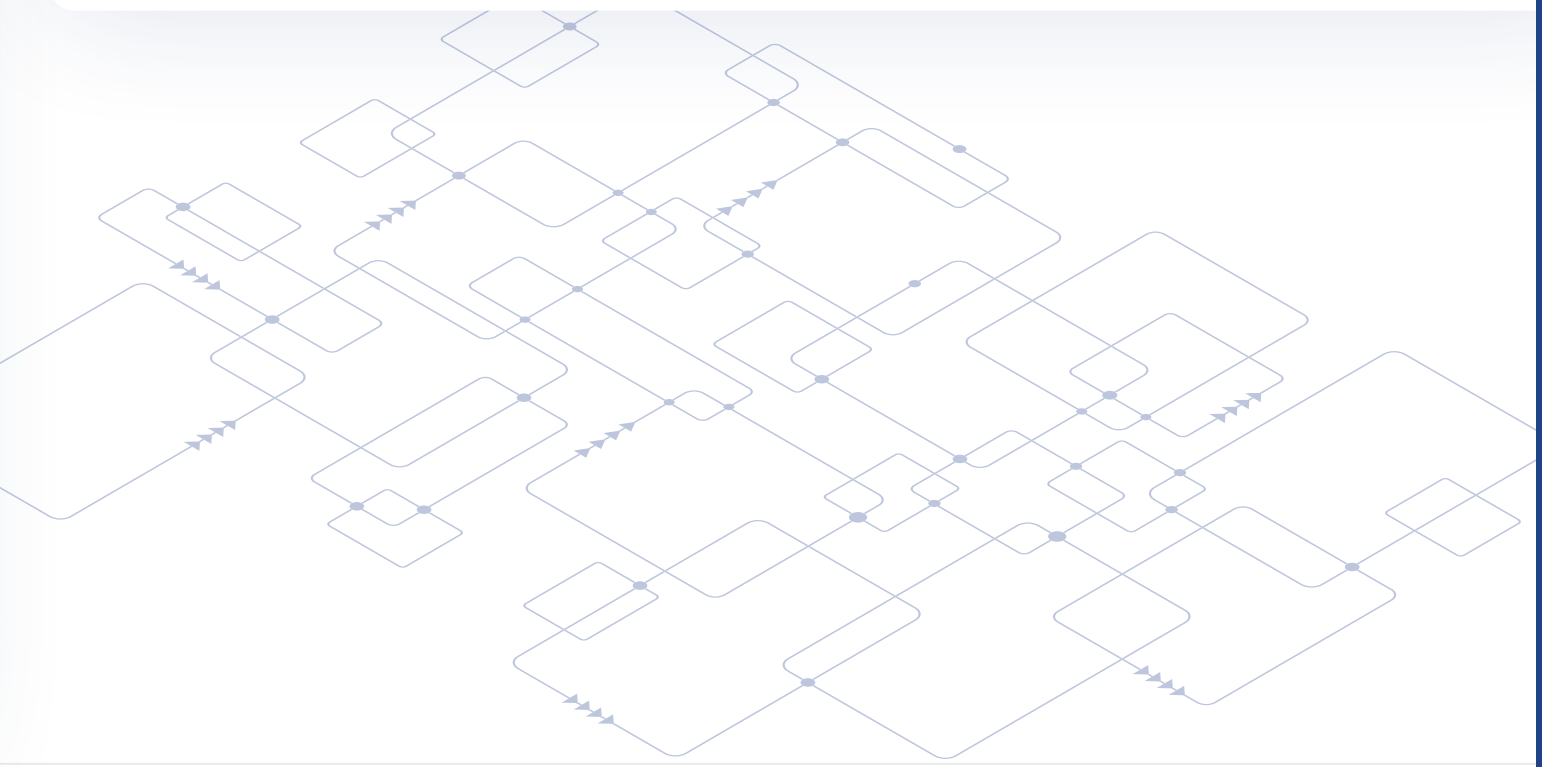
Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Channels	t_{ON} (ns)	t_{OFF} (ns)	$R_{DS(ON)}$ (Max) (Ω)	Package	Notes
MP2735	1.65	5.5	2	29	23	0.45	QFN-10 (1.4x1.8)	Low-voltage, dual SPDT
MP2736	1.65	5.5	2	29	23	0.45	QFN-10 (1.4x1.8)	Low-voltage, dual SPDT, EN function

OPERATIONAL AMPLIFIERS | PRECISION ANALOG

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	GBW (kHz)	I_Q (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 | PRECISION ANALOG

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, USB PORT & USB PD CONTROLLERS, E-FUSES

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 Flags	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	-	✓	SOT-563 (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 $I_{SHUTDOWN}$
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	-	✓	SOT-563 (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

USB/Load Switches — 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_Q, 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_Q, 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 Flags	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	22	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

S - Sampling Product

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 Flags	Output Discharge	Package	Notes
MP5031	4.5	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

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 Flags	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, 36mΩ $R_{DS(ON)}$, 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, 36mΩ $R_{DS(ON)}$, 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, 45mΩ $R_{DS(ON)}$, 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
S **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 Detection	✓	QFN-22 (3x5)	12V, 7mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring
MP5022A	8	16	15	Prog	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	✓	QFN-22 (3x5)	12V, 3mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring, controlled R_{ON} mode
MP5022C	4.5	16	15	36	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-22 (3x5)	12V, 3mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring

USB/LOAD SWITCHES, USB PORT & USB PD CONTROLLERS, E-FUSES

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 Flags	Output Discharge	Package	Notes
N **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
N **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)	1mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring
N **MP5099**	10.8/ 4.5	13.2/ 5.5	4/3	8	-	-	TQFN-10 (2x3)	Dual-channel current-limit switch with current monitoring
MP5021B	4.8	16	10	25	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	Yes	QFN-22 (3x5)	7mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring
MP5022A	8	16	12	36	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	✓	QFN-22 (3x5)	3mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring, controlled R_{ON} mode
MP5022C	4.5	16	15	36	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-22 (3x5)	3mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring
MP5921	4	16	50	120	GOK Fault Flag, Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-28 (4x5)	1mΩ $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, current monitoring, fault reporting
MP5023	4	16	50	110	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	✓	FCQFN-24 (4x5)	1.1mΩ hot-swap protection device, digital interface, current monitoring
MP5048	24	60	15	26	Current Limit, Thermal Shutdown, Damaged MOSFET Detection	-	QFN-30 (5x5)	7mΩ $R_{DS(ON)}$ 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)	1mΩ $R_{DS(ON)}$, 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)	1.1mΩ $R_{DS(ON)}$, 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)	1mΩ $R_{DS(ON)}$, 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)	9mΩ $R_{DS(ON)}$ hot-swap Intelli-Fuse solution, current monitoring, fault signal output
N **MP5026**	2.7	16	20	50	FLTB Fault Flag, OCP, SCP, OVP, OTP, Damaged MOSFET Drives FLTB Low	-	LGA-26 (4x4)	16V, 20A, 2.8mΩ $R_{DS(ON)}$, hot-swap Intelli-Fuse solution

N - New Product S - Sampling Product

USB/LOAD SWITCHES, USB PORT & USB PD CONTROLLERS, E-FUSES

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

48 MODULES & COMPONENTS | USB/LOAD SWITCHES, USB PORT & USB PD CONTROLLERS, E-FUSES

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
S	**MPC11057-54-0750-0100**	40	60	139	4	6	750	Non-Isolated	Config. soft-start time; config. UVLO, OVP, UVP, OCP, OTP; parallel operation; protection mode
N	**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

48V Modules & Components — Synchronous Rectifiers

	Part Number	V_{DS} (V)	I_{DS} (A)	$R_{DS(ON)}$ (mΩ)	V_{PWM} (V)	V_{CC} (Min) (V)	V_{CC} (Max) (V)	Package	Notes
N	**MP8500**	18	50	0.9	3.3	3	3.6	FCLGA-39L (5x5)	Dual-channel, Accu-Sense™ current sense, ZCD, junction temp sense

48V Modules & Components — GaN/MOSFET Drivers

	Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	V_{PWM} (V)	# of Driver Channels	t_{RISE} (ns)	t_{FALL} (ns)	Pull-Down/Pull-Up Resistance (Ω)	Package	Notes
N	**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

USB/LOAD SWITCHES, USB PORT & USB PD CONTROLLERS, E-FUSES

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)	Dimension WxL (mm)	Dimension (H) (mm)	Mounting Type	Notes
N	**MPC22163-130**	4	16	0.5	2	130	600	1500	9x10	7.65	Surface Mount	Current sense, OCP, OTP, parallel operation, temperature sense
N	**MPC22161-120**	4	16	0.5	2	120	700	1500	9x10	7.65	Surface Mount	Current sense, OCP, OTP, parallel operation, temperature sense
N	**MPC22164-130**	4	16	0.5	2	130	400	1500	9x10	10	Surface Mount	Current sense, OCP, OTP, parallel operation, temperature sense
N	**MPC22167-130**	4	16	0.5	2	130	400	1500	9x10	8	Surface Mount	Current sense, OCP, OTP, parallel operation, temperature sense
N	**MPC22165-170**	4	16	0.5	2	170	400	1500	9x10	10	Surface Mount	Current sense, OCP, OTP, parallel operation, temperature sense

HIGH-VOLTAGE ANALOG SWITCHES | ULTRASOUND MUX

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
S	**MP4895A**	96	5	±90	14	✓	SPST, 1:3	80	BGA-144 (10x10)	96-bit

N - New Product S - Sampling Product

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-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
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

SEMI-SHIELDED INDUCTORS | INDUCTORS

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-SE6040-6R8	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
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 INDUCTORS | INDUCTORS

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	215	1.5	1.9	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
N 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
N 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	280	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
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
MPL-AY4020-6R8	6.8	129	2.2	2.4	155	4020	4.45	4.1	1.8	SMD	High-temperature capabilities

N - New Product

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-AY4020-8R2	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
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

MOLDED INDUCTORS | INDUCTORS

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-AL5030-1R5	1.5	9.7	9	12.5	155	5030	5.5	5.3	2.9	SMD	High-temperature capabilities, low resistance
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
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

PRECISION ADCs | ANALOG-TO-DIGITAL CONVERTERS

Part Number	Resolution (Bits)	Sample Rate (Max) (Msps)	# of Channels	SNR (dB)	INL (LSB)	Architecture	Input Type	Data Interface	Operating Temperature (°C)	Package	Notes
S **MDC97476**	12	1	1	72	0.5	SAR	Single-Ended	SPI	-40 to +85	SOT-23	$V_{REF} = V_{DD}$
S **MDC97477**	10	1	1	61.5	0.5	SAR	Single-Ended	SPI	-40 to +85	SOT-23	$V_{REF} = V_{DD}$
S **MDC97478**	8	1	1	49.5	0.5	SAR	Single-Ended	SPI	-40 to +85	SOT-23	$V_{REF} = V_{DD}$

CURRENT-INPUT DELTA-SIGMA AFEs | ANALOG-TO-DIGITAL CONVERTERS

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

N - New Product S - Sampling Product

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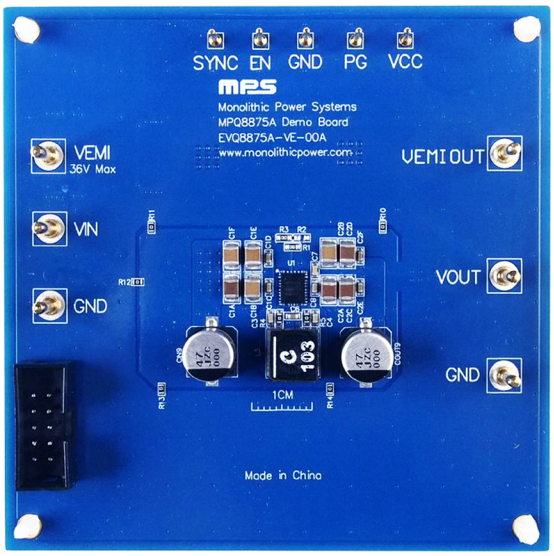

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PART NUMBERING NOMENCLATURE

EXAMPLE

MP1234GQV–Z

① ② ③ ④ ⑤

① MP — Prefix

MP###	MPQ####
MP####	HF####
MP#####	NB###

...see more at **MonolithicPower.com**

② 1234 — Part Number

③ G — Temperature Grade (T_A)

C	0°C to +70°C	**G**	-40°C to +125°C
D	-40°C to +85°C	**H**	-40°C to +125°C
E	-20°C to +85°C	**K**	-55°C to +125°C

--------> Temperature Internal to Datasheet; (T_J) Standard

④ QV — Package (mm) and Features

C	WLCSP	**QH**	QFN (1.5x2)	**W**	SOIC-WB w/ Exposed Pad
D	QFN (2x3)	**QJ**	QFN (5x6)	**X**	SOIC WB
E	SC70	**QK**	QFN (6x6)	**XN**	Unsorted Wafer
F	TSSOP w/ Exposed Pad	**QM**	QFN (6x7)	**Y**	TO220
FP	QFP	**QN**	QFN (7x7)	**ZF**	TO263
G	QFN (2x2)	**QP**	QFN (7x8)	**C**	C-Spec
H	MSOP w/ Exposed Pad	**QQ**	QFN (8x8)	**E**	Enhanced
J	TSOT23 (0.9 Height)	**QV**	QFN (3x5)	**R**	Reserve Lead Bend or Top Exposed Pad
K	MSOP	**QW**	QFN (4x6)	**S**	Customer Specific
L	QFN (3x4)	**QX**	QFN (6x10)	**T**	Thin Package
M	TSSOP	**QY**	QFN (5x8)	**U**	Ultra-Thin Package
N	SOIC w/ Exposed Pad	**R**	QFN (4x4)		
P	PDIP (300 Mil)	**S**	SOIC		
Q	QFN (3x3)	**SD**	SOD123		
QD	QFN (1x1.5)	**T**	SOT23 (1.1 Height)		
QF	QFN (1.2x1.6)	**U**	QFN (5x5)		
QG	QFN (1.4x1.8)	**V**	QFN (4x5)		

...more package and feature details can be found at **MonolithicPower.com**

⑤ –Z — Tape & Reel

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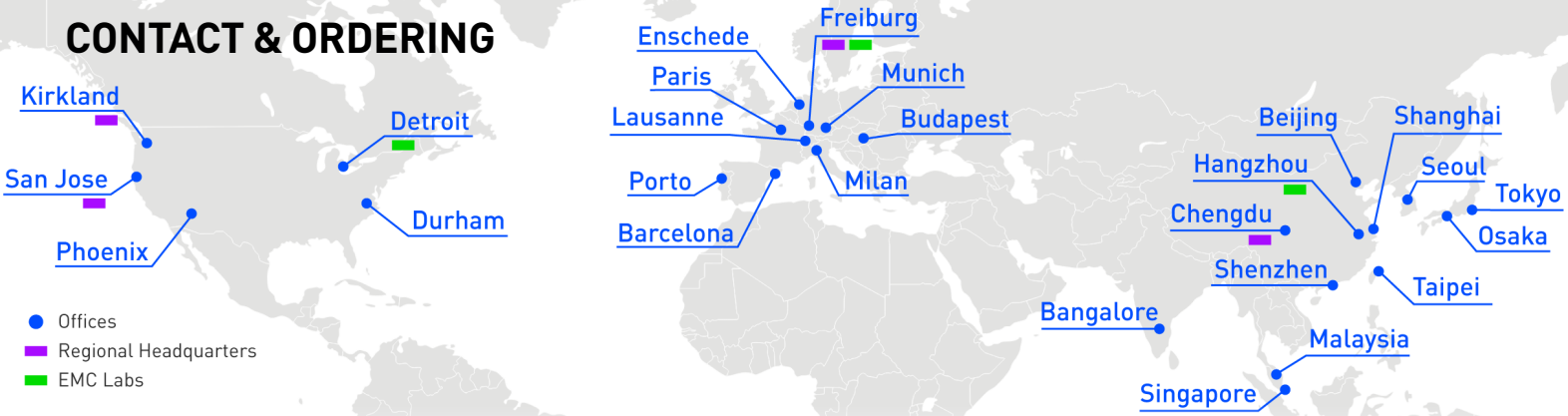

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