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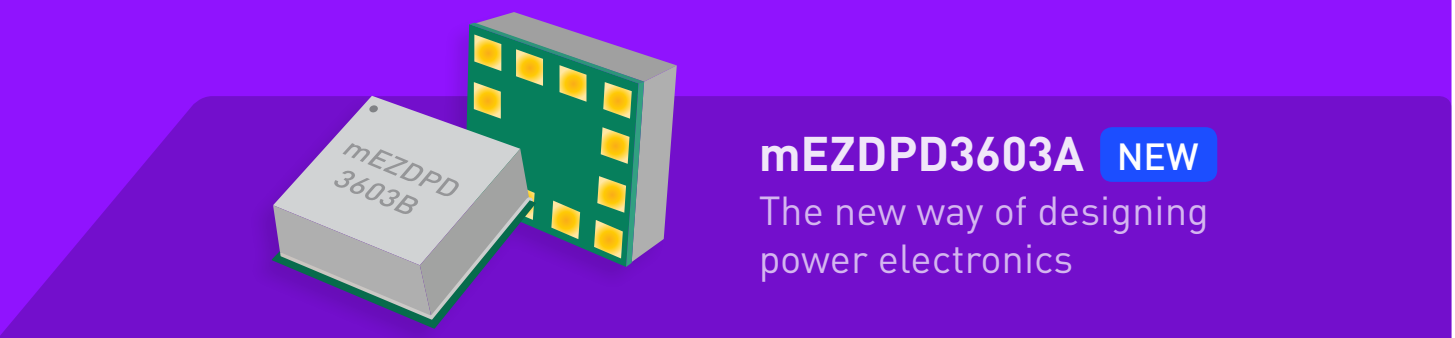

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SWITCHING REGULATORS | DC/DC POWER CONVERTERS

CPU Core (Controllers)

Maximum Operating Input Voltage < 55V

	Part Number	V_{CC} (Min) (V)	V_{CC} (Max) (V)	I_Q (Typ) (mA)	Shut. Current (Typ) (mA)	F_{SW} (MHz)	Soft Start	Regulated Output Phase	Package	Notes
	MP2953B	4.75	5.25	18	1	0.2 to 1	Int	6	QFN-40 (5x5)	PMBus interface, VR12.5
	MP2935	4.5	5.25	8	0.05	0.2 to 2	Int	4	QFN-40 (6x6)	VR12.5
	MP2939	3.2	3.4	8	0.05	0.3 to 3	Int	4	QFN-48 (6x6)	1+2+1 phase, IMVP8
NEW	MP2949A	3.15	3.4	13	0.07	0.01 to 2	Int	6	TQFN-48 (6x6)	3+2+1 phase for VccGT, Vcore, and VccSA, IMVP8/9

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
	MP86901A	4.5	22	12	25	0.03	0.1 to 2	3.5	TQFN-13 (3x3)
	MP86901B	4.5	22	20	42	0.03	0.1 to 2	3.5	TQFN-21 (3x4)
	MP86901C	4.5	22	30	60	0.03	0.1 to 2	3.5	TQFN-21 (3x4)
NEW	MP86903C	4.5	22	30	60	0.03	0.1 to 1.2	3.5	TQFN-21 (3x4)
NEW	MP86902B	3.3	12	35	75	0.03	0.1 to 2	3.5	TQFN-21 (3x4)
	MP86905	4.5	16	50	75	0.08	0.1 to 2	3.3	QFN-23 (4x4)

SWITCHING REGULATORS | DC/DC POWER CONVERTERS

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	Package	Notes
	MP28200	2	5.5	0.2	0.5		1.5	✓	✓	✓	✓	QFN-12 (2x2)	Ultra-low I_Q
Sampling	MP28310	2	5.5	0.3	0.5		1.5	✓	✓	✓	✓	CSP-12 (1.2x1.6)	Ultra-low I_Q, ultra-small package, 300mA buck + 100mA LDO, prog V_{OUT} by CTRL, COT, PG. Functionally equivalent to TPS62743
	MP21600	2.3	5.5	0.6	11	0.6	2.4		✓	✓	✓	QFN-6 (1x1.5)	High switching frequency, ultra-small package
	MP28301	2	5.5	0.7	0.5	0.6	1.5	✓	✓	✓	✓	QFN-12 (2x2)	Ultra-low I_Q, 700mA buck + 100mA LDO, prog V_{OUT} by CTRL, COT, PG
	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

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SWITCHING REGULATORS | DC/DC POWER CONVERTERS

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	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
	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)	Forced CCM, low ripple across entire load range
	MP2149	2.7	6	1 (2x)	45	0.608	1			✓				TSOT23-8	Dual-channel
	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
Sampling	MP2181	2.5	5.5	1	21	0.6	1.2	✓		✓	✓	✓		SOT583 (1.6x2.1)	1% V_{FB} accuracy, output discharge, ext soft start
	MP2160	2.7	6	1.2	20	0.6	3.5	✓		✓	✓	✓		QFN-8 (2x1.5)	3.5MHz switching frequency
	MP2141Q	2.3	5.5	1.5	20		2.2			✓	✓	✓		SOT563 (1.6x1.6)	Fixed 1.8V V_{OUT}, 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 & fixed V_{OUT} versions
Sampling	MP2182	2.5	5.5	2	21	0.6	1.2	✓		✓	✓	✓		SOT583 (1.6x2.1)	1% V_{FB} accuracy, output discharge, ext soft start
	MP2122	2.7	6	2 (2x)	45	0.608	1			✓		✓	✓	TSOT23-8	Dual-channel
	MP2166 MPQ2166	2.7	6	2 (2x)	60	0.6	3	✓		✓		✓	✓	QFN-18 (2x3) QFN-18 (2.5x3.5)	Dual-channel, ext 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 & fixed V_{OUT} versions
Sampling	MP2183	2.5	5.5	3	21	0.6	1.2	✓	✓	✓	✓	✓		SOT583 (1.6x2.1)	1% V_{FB} accuracy, output discharge
	MP2187	2.5	5.5	3 (2x)	80	0.6	1.2	✓		✓	✓	✓		QFN-16 (2.2x2.6)	Input voltage failure indicator, dual-output, out. dis.
	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
Sampling	MP2184	2.5	5.5	4	21	0.6	1.2	✓	✓	✓	✓	✓		SOT583 (1.6x2.1)	1% V_{FB} accuracy, output discharge
	MP2145	2.8	5.5	6	40	0.6	1.2	✓		✓	✓			QFN-12 (2x3)	Output discharge, PWM / PFM mode, dynamic voltage scaling
	MPQ8616-6	1.5	6	6	1050	0.61	Prog	✓	✓		✓		✓	QFN-14 (3x4)	CCM, non-latch OVP, and OCP
Sampling	MP8770C	3	17	8	100	0.6	0.7	✓	✓	✓	✓			QFN-16 (3x3)	Forced CCM, wide V_{IN} range, fast load transient response
	MPQ8616-12	1.5	6	12	1050	0.61	Prog	✓	✓		✓		✓	QFN-14 (3x4)	CCM, non-latch OVP, and OCP
NEW	MP8774	3	18	12	100	0.6	0.7	✓	✓	✓	✓			QFN-16 (3x3)	Wide V_{IN} range, fast load transient response, SCP, UVP, OCP & hiccup
	MPQ8612-16	1.5	6	16	1000	0.61	Prog	✓	✓	✓	✓		✓	QFN-17 (4x4)	DCM, non-latch OVP, and OCP
	MPQ8612-20	1.5	6	20	1000	0.61	Prog	✓	✓	✓	✓		✓	QFN-17 (4x4)	DCM, non-latch OVP, and OCP

SWITCHING REGULATORS | DC/DC POWER CONVERTERS

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
NEW	MP1479	4.2	18	1	0.19	0.805	0.8			✓	✓	SOT563 (1.6x1.6)	Low UVLO
	MP2313	4.5	24	1	0.2	0.8	2			✓		TSOT23-8	High frequency, light-load mode (AAM pin)
	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			✓		TSOT23-8	Low current limit version of MP2314, optimized EMI
NEW	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)	Fast load transient response, OCP, and hiccup
	MP2318	4.5	24	2	0.2	0.8	2			✓		TSOT23-8	High frequency, light-load mode (AAM pin)
	MPQ2314	4.5	24	2	0.18	0.791	0.5			✓	✓	TSOT23-8	AAM power-save mode, industrial grade
	MP2321	4	19	2	0.04	0.6	Prog	✓	✓	✓		QFN-14 (2x3)	Forced PWM or auto-PFM / PWM mode selectable, 100% duty cycle
NEW	MP2392	4.2	24	2	0.2	0.805	0.65	✓	✓	✓	✓	SOT583 (1.6x2.1)	Good regulation, SCP/OVP/UVP function
NEW	MP2331H	4.2	24	2	0.2	0.802	1.2	✓	✓	✓	✓	SOT583 (1.6x2.1)	High frequency, good regulation, SCP/OVP/UVP function
Sampling	MP2344	7.5	26	2	0.17	0.791	0.6			✓		TSOT23-6	P2P with MP2317/MP2345, optimized EMI
Sampling	MP2345	7.5	26	2.5	0.17	0.791	0.6			✓		TSOT23-6	P2P with MP2317/MP2344, optimized EMI
NEW	MP2393	4.2	24	3	0.2	0.802	0.65	✓	✓	✓	✓	SOT583 (1.6x2.1)	Good regulation, SCP/OVP/UVP function
NEW	MP2330H	4.2	24	3	0.2	0.802	1.2	✓	✓	✓	✓	SOT583 (1.6x2.1)	High frequency, good regulation, SCP/OVP/UVP function
	MP2319	4.5	18	3	0.27	0.8	0.65	✓		✓	✓	TSOT23-8	Output discharge, auto-retry OVP
	MP1477	4.2	17	3	0.2	0.805	0.8			✓	✓	SOT563 (1.6x1.6)	Fast load transient response, OCP, and hiccup
NEW	MP1477H	4.2	17	3	0.2	0.805	1.2			✓	✓	SOT563 (1.6x1.6)	High frequency
	MP2223	4.5	18	3/2	1	0.8	0.54			✓		TSOT23-8	Dual 3A/2A Buck, 180° out-of-phase operation

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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) (mA)	V_{FB} (Typ) (V)	F_{SW} (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
	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	4	0.6	0.807	0.5		✓	✓			QFN-10 (2x3)	Ext freq sync
NEW	MP2384	4.5	24	4	0.105	0.6	0.7	✓		✓	✓		QFN-11 (2x2)	Output discharge, OCP, OVP, UVP, ther. shut. with auto-retry. P2P with MP2329/MP2386
NEW	MPQ8636-4	4.5	18	4	0.86	0.611	Prog	✓	✓		✓	✓	QFN-16 (3x4)	CCM, non-latch OVP, prop. switching loss red, pre-bias start-up, stable w/ zero ESR out cap
	MP2225	4.5	18	5	0.32	0.6	0.5			✓			TSOT23-8	High-efficiency, 5A peak, ext freq sync
NEW	MPQ8623	4	16	6	0.65	0.9	0.6/1.1/2.2	✓	✓	✓	✓		QFN-14 (2x3)	Prog cur limit, prop switching loss red, pre-bias start-up, stable w/ zero ESR out cap, excel load reg
	MP2229	4.5	21	6	0.4	0.6	Prog		✓	✓	✓		QFN-14 (3x3)	Current mode, external frequency sync
Sampling	MP2236	3	18	6	0.15	0.6	0.6			✓	✓		TSOT23-8	Pin-to-pin with MP2225
NEW	MP2329	4.5	24	6.5	0.105	0.6	0.7	✓		✓	✓		QFN-11 (2x2)	Out. dis., OCP, OVP, UVP, thermal shutdown with Auto-Retry. P2P with MP2384/MP2386
NEW	MP2329C	4.5	24	6.5	0.105	0.6	0.7	✓			✓		QFN-11 (2x2)	Forced CCM version of MP2329
NEW	MP2386	4.5	24	8	0.105	0.6	0.7	✓		✓	✓		QFN-11 (2x2)	Out. dis, OCP, OVP, UVP, & thermal shut. with auto-retry. P2P with MP2384/MP2329
	MP2276	2.7	16	8	0.6	0.8	0.6/1.1/2	✓	✓	✓	✓		QFN-14 (2x3)	Prog current limit, selectable mode of op. forced CCM or pulse-skip op. at light load
NEW	MP8770	4.5	17	8	0.1	0.6	0.7	✓	✓	✓	✓		QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
Sampling	MP8770C	3	17	8	0.1	0.6	0.7	✓	✓	✓	✓		QFN-16 (3x3)	Forced CCM, wide V_{IN} range, fast load transient response
	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
Sampling	MP2238	3	18	8	0.15	0.6	0.6			✓	✓		QFN-12 (2x3)	1% V_{FB} accuracy, hiccup OCP
NEW	MP8771	4.5	17	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	Prog	✓	✓	✓	✓		QFN-14 (3x4)	External frequency sync, current mode
	MP8720	4.5	26	10	0.14	0.6	0.7	✓		✓	✓		QFN-16 (3x3)	Output discharge, adj current limit, forced CCM or PSM selection over-current limit, latch-off reset
NEW	MP8772	4.5	17	12	0.1	0.6	0.7	✓	✓	✓	✓		QFN-16 (3x3)	Fast load transient response, SCP, UVP, OCP, and hiccup
NEW	MP8774	3	18	12	0.1	0.6	0.7	✓	✓	✓			QFN-16 (3x3)	Wide V_{IN} range, fast load transient response, SCP, UVP, OCP, and hiccup
	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
	MP38876	4.5	28	15	1	0.81	0.4	✓	✓				QFN-20 (3x4)	Synchronous gate driver, OCP latch-off, external frequency sync
	MPQ8636H-20	4.5	18	20	1	0.611	Prog	✓	✓			✓	QFN-29 (5x4)	CCM, hiccup OVP

SWITCHING REGULATORS | DC/DC POWER CONVERTERS

Step-Down Converters (Buck)

Maximum Operating Input Voltage < 55V

	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 Eff.	Sync Rect.	Industrial	Package	Notes
	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)	Programmable 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
	MPQ4458	3.8	36	1	0.12	0.8	Prog			✓			TQFN-10 (3x3)	Integrated high-side MOSFET
	MPQ4558	3.8	55	1	0.14	0.8	Prog			✓		✓	QFN-10 (3x3) SOIC-8E	Current-mode control
NEW	MP4431 MPQ4431	3.3	36	1	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable forced CCM or AAM, prog soft-start time, good EMI, and low-dropout mode
	MP2269	3.3	30	1	0.012	0.8	Prog	✓	✓	✓	✓		QFN-15 (2x3)	Current-mode control, low I_Q, forced PWM and auto-PFM/PWM sel., 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	Programmable output-current limit
	MPQ4561	3.8	55	1.5	0.14	0.795	Prog		✓	✓			QFN-10 (3x3)	Internal high-side MOSFET
NEW	MP4425M MPQ4425M	4	36	1.5	0.5	0.2	2200					✓	QFN-13 (2.5x3)	PWM dimming and OCP/SCP, external frequency sync
	MP9942 MP9942A	4	30	2	0.5	0.792	410	✓		✓	✓		TSOT23-8	Forced CCM, consumer grade, external frequency sync
	MP4420H MPQ4420H	4	36	2	0.5	0.792	410	✓			✓	✓	TSOT23-8	External frequency sync
	MPQ4560	3.8	55	2	0.14	0.797	Prog			✓		✓	QFN-10 (3x3) SOIC-8E	AEC-Q
	MP2499	4.5	55	2	0.5	0.8	100		✓				SOIC-16	Programmable output current
NEW	MP4432 MPQ4432	3.3	36	2.2	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Select. forced CCM or AAM, prog soft-start time, good EMI, and low-dropout mode
	MPQ4460	3.8	36	2.5	0.12	0.8	Prog			✓			QFN-10 (3x3)	Programmable 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 internal high-side
	MP2496	7	36	2.5	1.6		350/250/150						QFN-26 (4x4)	Integrated smart USB charging port, auto-detect, cable compensation
	MP2499A	5	36	3	0.7	0.792	270			✓	✓		QFN-13 (2.5x3)	Current-mode control, ext frequency sync, output line drop compensation
	MP4423H MPQ4423H	4	36	3	0.5	0.79	410	✓			✓	✓	QFN-8 (3x3)	External frequency sync
	MP9943/A	4	30	3	0.5	0.79	410	✓		✓	✓		QFN-8 (3x3)	Consumer grade, 36V max, ext frequency sync

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Step-Down Converters (Buck)

Maximum Operating Input Voltage < 55V

	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	Ext Soft Start	Light-Load Eff	Sync Rect.	Industrial	Package	Notes
NEW	MP4433 MPQ4433	3.3	36	3	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Sel. forced CCM or AAM, prog soft-start time, good EMI, and low-dropout mode
	MP4570 MPQ4570	4.5	55	3	0.45	1	Prog	✓	✓	✓	✓	✓	TSSOP20 EP	External frequency sync
	MP2263	3.3	30	3	0.012	0.8	Prog	✓	✓	✓	✓		QFN-15 (2x3)	Current-mode control, low I_Q, forced PWM & auto PFM/PWM selection, low dropout mode
	MP4462 MPQ4462	3.8	36	3.5	0.12	0.792	Prog				✓	✓	QFN-10 (3x3) SOIC-8E	AEC-Q
	MP4473	4.5	36	3.5	0.5	0.815	Prog	✓	✓	✓	✓	✓	QFN-20 (3x4)	High frequency
NEW	MP4430 MPQ4430	3.3	36	3.5	0.01	0.8	Prog	✓	✓	✓	✓	✓	QFN-16 (3x4)	Selectable forced CCM or AAM, programmable soft-start time, good EMI, and low-dropout mode
Sampling	MP2491C	4	32	6	0.45	0.5	480	✓		✓	✓		QFN-13 (2.5x3)	Adjustable current limit, V_{OUT} scaling control
Sampling	MPQ4480 -AEC1	4.2	36	6	1	1	Prog			✓	✓	✓	QFN-25 (4x5)	CC output-current limit adj: 2.75A/3.75A/7.5A, ext sync, AEC-Q100 qualified
	MP8675	4.5	42	6	0.9	0.808	420				✓		SOIC-8E	Synchronizable gate driver, ext frequency 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	0.6	0.8	300	Int	SOIC-14 SOIC-8E	Synchronous PWM DC/DC linear, specific power good Indicator for Intel, Grantsdale FSB_VTT power sequence
MP2905	3	28	0.6	0.6	Adj 200 to 500	Ext	MSOP-10	Ideal for applications greater than 15A
MP2908A	4	60	0.75	0.8	Adj 100 to 1000	Ext	TSSOP20 EP QFN-20 (3x4)	Industrial grade, power good, programmable CCM, AAM, pulse-skipping mode

Step-Up Charge Pump

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, internal soft start, OCP, SCP, inrush current limit
MP9218	2.8	5	0.11	2	1350		QFN-6 (2x2)	Fixed 5V_{OUT}, high-performance, regulated

Step-Up Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	F_{SW} (kHz)	I_Q (Typ) (mA)	V_{FB} (Typ) (V)	Soft Start	Package	Notes
MP3910	5	35	1	Adj 30 to 400	0.288	1.237	Ext	MSOP-10	Supports pulse-skipping mode at light load, 0.95 max duty cycle
MP3910A	9	14	1	Adj 30 to 400	0.288	1.237	Ext	SOIC-8E	Supports pulse-skipping mode at light load, 0.95 max duty cycle
MP6002	10	100	3	550	1	1.21	Int	SOIC-8E	Flyback / forward DC/DC converter, 30W, integrated 150V power switch
MP6001	10	100	2	550	1	1.21	Int	SOIC-8E	Flyback / forward DC/DC Converter, 15W, integrated 150V power switch
MP6003	10	100		550	1	1.21	Int	SOIC-8E	Monolithic flyback / sepic DC/DC converter

SWITCHING REGULATORS | DC/DC POWER CONVERTERS

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
	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 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
	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 & 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	Int current limit
	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 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) TSSOP-16	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, indust. 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	Prog 300 to 2000	QFN-14 (3x4)	Prog UVLO and EN hysteresis, industrial grade
	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	Prog 300 to 2000	QFN-14 (3x4)	Output disconnect, sync
	MP3426	3.2	22	8.5	0.65	3.2 to 35	Prog 300 to 2000	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
NEW	MP3424	2	5.5	9.5	0.32	3 to 5.5	580	QFN-14 (2x2)	Current prog, output disconnect, 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, prog UVLO and hysteresis, sync
Sampling	MP3432	2.7	13	21.5	0.45	V_{IN} to 16	600	QFN-13 (3x4)	Selectable PSM/USM/FCCM, prog switch peak current limit, auto pass-through mode in PSM when $V_{IN} > V_{OUT}$, sync
	MP3428A	3	20	25	0.65	3 to 22	600	QFN-22 (3x4)	Input disconnect function, ext soft start, prog UVLO and hysteresis, sync

SWITCHING REGULATORS | DC/DC POWER CONVERTERS

Step-Up Energy Storage (Dying GASP) / Power Back-Up Manager 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
	MP5505A	2.7	7	30	0.5	5	2 (Max)	0.79	QFN-20 (3x4)	Prog storage, release voltage, hot-swap management unit, for SATA/M.2 PICe
	MP5455	2.7	7	30	0.5	5	2 (Max)	0.79	QFN-20 (3x4)	For USB Type-C HDMI dongle reference design
	MP5507E	2.7	7	30	0.5	5	2 (Max)	0.79	QFN-16 (2.5x3.2)	Bus power good indicator, adj dV/dt slew rate for VB start-up, 1.2MHz buck release mode switching frequency, smaller package version of 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
NEW	MP5515	2.7	18	32	0.5 to 2	6.5	3 (Max)	0.8	QFN-30 (5x5)	Prog, high-efficiency, lossless energy storage and power back-up management unit for solid-state and hard-disk drive applications

Step-Up LNB

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Standard	I_{OUT} (Max) (A)	22kHz Tone Signal Generated	Package	Notes
	MP8124	8	14	DiSEqC™ 1.x	0.5	Internal	QFN-14 (2x3)	Boost converter with internal switch, low-noise LDO output, line drop compensation, selectable V_{OUT} compensation, adjustable output SS
Sampling	MP8128	8	14	DiSEqC™1.x & DiSEqC™2.x	1	Selectable Int or Ext	QFN-20 (3x3)	With I^2C interface, low-noise LDO output, selectable output voltage

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
	MP2155	2	5.5	2.2	0.08	0.496	1000	✓	QFN-10 (3x3)	Power-save mode, load disconnect
Sampling	MP28160	2.7	5.5	2.5	0.2		1800	✓	CSP-12 (1.4x1.8)	0.5A I_{OUT}, buck-boost converter, 3.3V fixed output voltage
	MP28163	2	5.5	2.9	0.07	0.496	1100	✓	QFN-10 (3x3)	Power-save mode, load disconnect
	MP28164	1.2	5.5	4.2	0.025	0.5	2000	✓	QFN-11 (2x3)	Power-save mode, load disconnect
Sampling	MP28167	2.8	22	Prog	3		500	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch buck-boost converter, fixed output voltage options available
Sampling	MP8860	2.8	22	Prog	1		500	✓	QFN-16 (3x3)	1A I_{OUT}, 4-switch buck-boost converter, with I^2C interface
Sampling	MP8862	2.8	22	Prog	1		500	✓	QFN-16 (3x3)	2A I_{OUT}, 4-switch buck-boost converter, with I^2C interface
Sampling	MP8859	2.8	22	Prog	1		500	✓	QFN-16 (3x3)	3A I_{OUT}, 4-switch buck-boost converter, with I^2C interface
Sampling	MP2980	4.5	24	Prog	0.8 / 0.02	0.5 / 2.047	Selectable: 200/ 300/400/600	✓	QFN-32 (4x4)	4-switch buck-boost controller, with I^2C interface
Sampling	MP2984	4.5	24	Prog	0.8 / 0.02	0.5 / 2.047	Selectable: 200/ 300/400/600	✓	QFN-32 (4x4)	4-switch buck-boost controller, with I^2C int., <50mA steps cur. limit adj through IPWM Pin
Sampling	MP4245	4	36	17	0.18	0.1 / 0.4/ 0.72 /1.6	Selectable: 250/ 350/420	✓	QFN-21 (4x5)	4-switch buck-boost converter, spread spec. sel., I^2C interface and 2 times prog. MTP

LDO | DC/DC POWER CONVERTERS

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	I_Q (Typ) (μA)	Load Regulation (%/mA)	PSRR @ 1kHz (dB)	V_{FB} (V)	Dropout Voltage (mV)	Package	Notes
MP2000	1.35	6	150	65	0.001	50	0.5	250 (IO: 100mA) 300 (IO: 150mA)	TSOT23-5	Low-voltage input (1.35V to 6V)
MP8801	2.7	6.5	150	125	0.001	70	1.22	150 (IO: 150mA)	TSOT23-5	Low noise, excellent for RF app, lower cost
MP8802	2.7	6.5	250	125	0.001	70	1.22	230 (IO: 250mA)	TSOT23-5	Excellent for RF applications, lower cost
MP20041	2.5	6	300 (2x)	114	0.003	65		75 (IO: 100mA) 220 (IO: 300mA)	QFN-8 (2x2)	Dual fixed output, P2P with RT9012
MP2002	1.35	6.5	500	100	0.001	26	0.5	290 (IO: 500mA)	QFN-8 (2x3)	Low-voltage input, power good
MP8904	2.5	6.5	500	100	0.001	26	0.496	300 (IO: 500mA)	QFN-8 (2x3)	Power good output, industrial grade
MP20045	2.5	5.5	1000	110	0.0003	56	1.5	140 (IO: 1000mA)	QFN-8 (3x3) SOIC-8E	High input/output current with fast response, fixed and adjustable +O252 output voltages
MP20051	2.5	5.5	1000	110	0.0003	63	0.8	140 (IO: 1000mA)	QFN-8 (3x3)	Industrial grade
MP20046	2.7	5.5	2000	75	0.0003	70		210 (IO: 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, VDRV=3.3V

High-Performance Low-Dropout Linear Regulators

	MP2016	4	42	30	12	0.003	50	1.23	700 (IO:30mA)	QFN-8 (2x3) TSOT23-5	Ideal for automotive
	MP2015A	2.5	24	150	3.3	0.005	41	1.215	700 (IO:150mA)	TSOT23-4 QFN-6 (2x2) QFN-8 (3x3)	EN pin
	MP2019	3	40	300	10	0.04	45	1.25	420 (IO:300mA)	SOIC-8 EP	Industrial grade
	MP2014	3	40	500	10	0.03	45		750 (IO:500mA)	TO252-5	Low I_Q
Sampling	MP2018	3	16	500	10	0.03	45		750 (IO:500mA)	TO252-5	Low I_Q, fixed output voltage, power good
	MP2005	1	5.5	800	100	0.0005	65	0.5	70 (IO:800mA)	QFN-8 (2x3)	Fast transient, 48dB PSRR @1MHz
	MP2030	1.1	5	3000	220	0.001	32	0.5	150 (IO:3000mA)	QFN-10 (3x3) QFN-32 (5x5)	Dual supply, fast transient, bias supply, power good, current limit, int thermal prot.

SUPERVISORY | DC/DC POWER CONVERTERS

	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				N/A	QFN-10 (3x3)	Power-save mode, load disconnect
Sampling	MP6420	3.6	18	3	0.5		3000 to 4600	TSOT23-8	Battery protection IC for 2-3-series cell li-ion with integrated protective MOSFET and PTC interface
Sampling	MP6422	3.6	24	6	0.3		3000 to 4600	QFN-10 (1.5x2.0)	Battery protection IC for 2-4 series cell Li-Ion with protective MOSFET and PTC interface
Sampling	MP6412	2.2	12	1				QFN-10 (1.4x1.8)	Ultra-low I_Q load switch controller with RESET timer

MOSFET DRIVERS

Half-Bridge Gate Drivers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Bootstrap Supply (Max) (V)	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn-On Delay (ns)	Turn-Off Delay (ns)	Package	Notes
MP18024	9	16	100	3	4.5	15	9	20	20	SOIC-8E	4A, high frequency
MP1906	10	16	80	0.35	1	50	30	80	80	SOIC-8	High performance
MP1907	4.5	18	100	1.5	2.5	12	9	18	20	QFN-10 (3x3)	2.5A, high frequency
MP18021A	9	18	100	1.5	2.5	12	9	16	16	SOIC-8E QFN-8 (3x3)	2.5A, high frequency, industrial grade
MP18021	9	18	100	1.5	2.5	12	9	16	16	SOIC-8E QFN-8 (3x3)	High frequency, N-channel MOSFET with 1ns matching delay

FLYBACKS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	F_{SW} (kHz)	Package	Notes
	MP6004	14	80	2.05	0.38	1.99	10 to 200	QFN-14 (3x3)	13W, integrated 180V power switch
Sampling	MP6005	8	80	0.8V*160mV / RSENSE	0.45	2	250	MSOP-10	Flyback/forward controller with PSR or SSR, 2A gate and 0.8A sync drivers

PMIC & MULTIPLE OUTPUTS | DC/DC POWER CONVERTERS

CSP-12 (1.2x1.6)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
Sampling	MP28310	2	5.5	Buck: 1.2 / 1.5 / 1.8 / 2.5 / 2.8 / 3.0 / 3.3 LDO: 1.8 / 2.8 / 3.0	0.6	1500	Ultra-low I_Q, ultra-small package, 300mA buck + 100mA LDO, programmable V_{OUT} by CTRL, COT, PG

CSP-12 (1.4x1.8)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
Sampling	MP5461	V_{IN}1: 4V V_{IN}2: 2.4V	V_{IN}1: 22V V_{IN}2: 5.5V	3.3	2.6	2000	Dual-input O-ring switches, power path sel, input/indication, fast SCP on OR_OUT, fast reverse block within 2µs on OR_OUT, output OVP for buck-boost converter

QFN-10 (1.4x1.8)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
Sampling	MP5418	2.3	5	V_{OUT}1: -VIN V_{OUT}2: 0V to -CTL	1	30 to 550	Negative charge pump + an adjustable negative regulator

QFN-12 (2x2)

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
MP28300	2	5.5	Buck: 0.8 / 1.0 / 1.2 / 1.5 / 1.8 / 2.5 / 3.3 LDO: 1.3 / 1.8 / 3.3	0.6	1500	Ultra-low I_Q, 300mA buck + 100mA LDO, programmable V_{OUT} by CTRL, COT, PG
MP28301	2	5.5	Buck: 0.8 / 1.0 / 1.2 / 1.5 / 1.8 / 2.5 / 3.3 LDO: 1.2 / 2.5 / 3.0	1.2	1500	Ultra-low I_Q, 700mA buck + 100mA LDO, programmable V_{OUT} by CTRL, COT, PG

QFN-22 (3x4)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
Sampling	MP5470	4	16	0.55 - 7	Prog	Prog	Prog	I^2C interface, four buck converters (3A/3A/2A/2A), parallel mode for higher current, 1 GPIO pin

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PMIC & MULTIPLE OUTPUTS | DC/DC POWER CONVERTERS

QFN-26 (5x5)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
Sampling	MP5408	6	36	5.1/5.17/5.3		Converter: 13 USB SW1: 3.45 USB SW2: 2.75	Prog	Integrated, smart, dual USB charging ports, auto-detect, supports USB Type-C 5V at 3A DFP mode

QFN-28 (4x4)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
	MP5416	2.8	5.5	Prog	Prog	Prog	Prog	I²C bus and one-time programmable (OTP) function, programmable $V_{OUT}/F_{SW}/I_{SW}$ via I²C/OTP, configurable mini PMIC, four buck converters (4.5A/4A/2.5A/2A) + five LDOs (3A)
Sampling	MP5417	2.8	5.5	Prog	Prog	Prog	Prog	I²C bus and one-time programmable (OTP) function, programmable $V_{OUT}/F_{SW}/I_{SW}$ via I²C/OTP, four buck converters ((4A/2A/4A/2A) + two LDOs (300mA) + two GPIO pins

SOIC8-EP

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
Sampling	MP5423	25	100	14/5/3.3	0.65	200	One 300mA buck converter + two LDOs (100mA/40mA)

UTQFN-20 (2.5x3)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
	MP5403	2.7	6	Ch 1: 0.9V, 1.1V, 2.5V, 2.85V Ch 2: 0.9V, 1.2V, 1.8V, 2.5V	0.6	Ch 1: 5.6 Ch 2: 4.7	1500	Configurable mini PMIC, two buck converters (2.5A/3.5A) + one load switch (3A)
NEW	MP5403B	2.7	6	0.6V to 6V	0.6	Ch 1: 8.5 Ch 2: 7	1500	Mini PMIC, dual peak buck (4A/5A) + one load switch (3A)

WLCSP-38 (2.7x3.1)

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	V_{FB} (V)	I_{SW} Limit (Typ) (A)	F_{SW} (kHz)	Notes
Sampling	MP5413	2.8	5.5	Prog	Prog	Prog	Prog	Ultra-small package, sleep mode control, I²C bus and one-time programmable (OTP) function, programmable $V_{OUT}/F_{SW}/I_{SW}$ via I²C/OTP, four buck converters (3A/2A/3A/2A) + two LDOs (300mA) + two GPIO pins

FULLY INTEGRATED PoE PD SOLUTIONS | DC/DC POWER CONVERTERS

	Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Package	Notes
	MP8004	100V, 1Ω DMOS	420	Yes	802.3af	QFN-20 (4x6)	13W PoE PD interface and PWM converter
	MP8007	100V, 0.48Ω DMOS	840	Yes	802.3af	QFN-28 (4x5)	13W primary-side regulated flyback without optocoupler feedback
	MP8008	100V, 0.48Ω DMOS	840	Yes	802.3af/at	QFN-28 (4x5)	25.5W PoE PD interface and peak-current mode SSR flyback controller
Sampling	MP8009	100V, 0.48Ω DMOS	840	Yes	802.3af/at	QFN-28 (4x5)	PD interface and PSR/SSR controller

PoE PD CONTROLLERS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (mA)	V_{FB} (V)	F_{SW} (kHz)	Package	Notes
	MP3900	8.6	12	0.2V/RSENSE	0.18	0.816	330	MSOP-8	Boost controller, 10V gate driver
	MP6001	4.5	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 PSR flyback, integrated 180V power switch
Sampling	MP6005	8	80	0.8V*160mV / RSENSE	0.45	2	250	MSOP-10	Flyback/forward controller with PSR or SSR, 2A gate and 0.8A sync drivers

PoE PD IDENTITY

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Package	Notes
MP8003A	100V, 0.48Ω DMOS	840	Yes	802.3af/at	QFN-10 (3x3)	25.5W PoE PD controller
MP8001	100V, 0.8Ω DMOS	420	Yes	802.3af	SOIC-8	15W PoE PD controller

DIGITAL REGULATOR | DC/DC POWER CONVERTERS

Synchronous Step-Down Converters with I²C Interface

	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 Rectification	Constant-On-Time (COT)	Package	Notes
	MP8843	2.6	6	3	0.06	0.6	1000 to 2000	✓		✓	✓	✓	QFN-12 (2x2)	Prog $V_{OUT,}$ power-save mode
	MP8864	4.5	21	4	0.5	0.6	1600	✓	✓	✓	✓		QFN-15 (3x3)	Prog V_{OUT}, power-save mode
	MP8845	2.8	6	5	18	0.6	2200			✓	✓		WLCSP (1.6x2)	Slew rate, selectable power-save mode
NEW	MP8861	2.85	18	6	0.42	0.72	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I²C prog FB range, integrated telemetry, accurate output voltage/current, readback via I²C
	MP8846	4.5	8	6	0.5	0.6	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	1600	✓	✓	✓	✓		QFN-15 (3x3)	Prog V_{OUT}, power-save mode
	MP8867	4.5	17	8	0.56	0.6	1500	✓	✓	✓	✓		QFN-14 (3x4)	Prog V_{OUT}, power-save mode
	MP8868	4.5	17	10	0.56	0.6	1500	✓	✓	✓	✓		QFN-14 (3x4)	Prog V_{OUT}, power-save mode
	MP8869S	2.85	18	12	0.42	0.72	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	V_{OUT} adj up to 5.5V with FB pin, integrated telemetry, accurate output voltage/current, readback via I²C
	MP8869W	3	18	12	0.42	0.6	500 to 1250	✓	✓	✓	✓	✓	QFN-14 (3x4)	I²C prog output range, support FB loop or I²C V_{OUT} loop, int telemetry, accurate out. volt./current, readback via I²C

STEP-DOWN CONVERTERS WITH INTEGRATED INDUCTOR | POWER MODULES

Synchronous (V_{IN} (Max) ≤ 6V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features OCP/SCP/UVLO/OTP	Package	Solution Size	Notes
NEW	MPM3804	0.6	2.3 to 5.5	11	✓	✓	Int	✓	QFN-10 (2x2x0.9)	3.6x3.6mm	5.5V/0.6A, adj V_{OUT}, excellent load and line regulation
Sampling	MPM3804-12	0.6	2.3 to 5.5	11	✓	✓	Int	✓	QFN-10 (2x2x0.9)	3.6x3.6mm	5.5V/0.6A,1.2V fixed V_{OUT}, sync, ultra-small QFN package
Sampling	MPM3804-18	0.6	2.3 to 5.5	11	✓	✓	Int	✓	QFN-10 (2x2x0.9)	3.6x3.6mm	5.5V/0.6A, 1.8V fixed V_{OUT}, sync, ultra-small QFN package
Sampling	MPM3804-25	0.6	2.3 to 5.5	11	✓	✓	Int	✓	QFN-10 (2x2x0.9)	3.6x3.6mm	5.5V/0.6A, 2.5V fixed V_{OUT}, sync, ultra-small QFN package
Sampling	MPM3804-33	0.6	2.3 to 5.5	11	✓	✓	Int	✓	QFN-10 (2x2x0.9)	3.6x3.6mm	5.5V/0.6A, 3.3V fixed V_{OUT}, sync, ultra-small QFN package
	MPM3805	0.6	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/0.6A, ultra-low I_Q, adj V_{OUT}
	MPM3805-12	0.6	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/0.6A, ultra-low I_Q, 1.2V fixed V_{OUT}
	MPM3805-18	0.6	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/0.6A, ultra-low I_Q, 1.8V fixed V_{OUT}
	MPM3805-25	0.6	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/0.6A, ultra-low I_Q, 2.5V fixed V_{OUT}
	MPM3805-33	0.6	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/0.6A, ultra-low I_Q, 3.3V fixed V_{OUT}
Sampling	MPM3811	1	2.3 to 5.5	340	✓		Int	✓	QFN-10 (2x2x1.6)	3.6x3.6mm	5.5V/1A, peak 1.2A, sync, ultra-small QFN package, excellent load & line reg.
	MPM3810	1.2	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/1.2A, ultra-low I_Q, adj V_{OUT}
	MPM3810-12	1.2	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/1.2A, ultra-low I_Q, 1.2V fixed V_{OUT}
	MPM3810-18	1.2	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/1.2A, ultra-low I_Q, 1.8V fixed V_{OUT}
	MPM3810-25	1.2	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/1.2A, ultra-low I_Q, 2.5V fixed V_{OUT}
	MPM3810-33	1.2	2.5 to 6	17	✓	✓	Int	✓	QFN-12 (3x2.5x0.9)	3.81x5.97mm	6V/1.2A, ultra-low I_Q, 3.3V fixed V_{OUT}
NEW	MPM38111	Dual 1A	2.7 to 6	45	✓		Int	✓	QFN-14 (4x4x1.6)	7x8.5mm	2.7 to 6V, dual 1A I_{OUT}, ultra-low I_Q
Sampling	MPM3822C	2	2.7 to 6	500		✓	Int	✓	QFN-18 (2.5x3.5x1.6)	3.5x5.2mm	6V/2A, sync, adj output from 0.6, ultra-small module, forced CCM
	MPM3820	2	2.7 to 6	40	✓	✓	Int	✓	QFN-20 (3x5)	8.5x4.5mm	6V/2A, adjustable output from 0.6V, ultra-low I_Q
	MPM3830	3	2.7 to 6	40	✓	✓	Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	6V/3A, high light-load efficiency
Sampling	MPM3833C	3	2.7 to 6	500		✓	Int	✓	QFN-18 (2.5x3.5x1.6)	3.5x5.2mm	6V/3A, sync, adj output from 0.6V, ultra-small module, forced CCM
NEW	MPM38222	Dual 2A	2.7 to 6	45	✓		Int	✓	QFN-14 (4x4x1.6)	7x8.5mm	2.7 to 6V, dual 2A I_{OUT}, ultra-low I_Q
	MPM3840	4	2.8 to 5.5	40	✓	✓	Int		QFN-20 (3x5x1.6)	8.5x4.5mm	5.5V/4A, light-load efficiency, 100% duty cycle, low I_Q

STEP-DOWN CONVERTERS WITH INTEGRATED INDUCTOR | POWER MODULES

Synchronous (6V < V_{IN} (Max) ≤ 24V)

	Part Number	I_{OUT} (A)	V_{IN} (V)	I_Q (µA)	Light-Load Efficiency	Power Good	I²C Interface	Soft Start	Protection Features OCP/SCP/UVLO/OTP	Package	Solution Size	Notes
	MPM3606	0.6	4.5 to 21	200	✓			Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	21V/0.6A, output adj from 0.8V
	MPM3606A	0.6	4.5 to 21	300	✓	✓		Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	21V/0.6A, power good, power-save mode at light load, output adj from 0.8V
	MPM3610	1.2	4.5 to 21	200	✓			Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	21V/1.2A, output adj from 0.8V, low I_Q
	MPM3610A	1.2	4.5 to 21	200	✓	✓		Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	21V/1.2A, output adj from 0.8V, low I_Q, power good
	MPM3620	2	4.5 to 24	200	✓			Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	24V/1.2A, output adj from 0.8V, low I_Q
	MPM3620A	2	4.5 to 24	200	✓	✓		Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	Power good, 24/2A, adj output from 0.8V
NEW	MPM3632C	3	4 to 18	1200		✓		Int	✓	QFN-20 (3x5x1.6)	7x7.9mm	18V/3A, sync, output adj from 0.8V, forced CCM
NEW	MPM3630	3	4.5 to 24	320	✓	✓		Int	✓	QFN-20 (3x5x1.6)	8.5x4.5mm	18V/3A, sync, int power save mode for light load
	MPM3680	6	2.5 to 18	860	✓	✓		Int / Ext	✓	QFN-57 (12x12x4)	16x16mm	18V/6A, prog F_{SW}, output adj from 0.65V to 5V
Sampling	MPM3683-7	7	2.7 to 16	650	✓	✓		Int	✓	QFN-28 (7x7x4)	12x11mm	16V/7A, peak 10A, with ext 3.3V bias, 4V to 16V with int bias or ext 3.3V bias
Sampling	MPM3695-10	10	3.3 to 14			✓	✓	Int	✓	QFN-45 (8x8x1.6)	14.5x15.8mm	7A cont. I_{OUT}, peak 10A, 0.5V to 3.3V output, parallel up to 60A peak, ultra-thin
Sampling	MPM3695A-10	10	3.3 to 14			✓	✓	Int	✓	QFN-45 (8x8x1.6)	14.5x15.8mm	10A, 0.5V to 1.8V V_{OUT}, parallel up to 60A
	MPM3682	10	2.5 to 18	860	✓	✓		Int / Ext	✓	QFN-57 (12x12x4)	16x16mm	18V/10A, prog F_{SW}, output adj from 0.65V to 5V
	MPM3684	15	2.5 to 18	860	✓	✓		Int / Ext	✓	QFN-65 (12x15x4)	16x17.5mm	18V/15A, prog F_{SW}
Sampling	MPM3695-25	20	3 to 16			✓	✓	Int	✓	QFN-45 (10x12x4)	15x16mm	20A continuous I_{OUT}, peak 25A, 0.5V to 5.5V output, parallel up to 200 peak
	MPM3686	20	2.5 to 18	860	✓	✓		Int / Ext	✓	QFN-65 (12x15x4)	16x17.5mm	18V/20A, prog F_{SW}

Synchronous (24V < V_{IN} (Max) ≤ 36V)

	MPM3506A	0.6	4.5 to 36	580		✓		Int	✓	QFN-19 (3x5x1.6)	8.5x4.5mm	36V/0.6A, output adj from 0.8V
	MPM3510A	1.2	4.5 to 36	580		✓		Int	✓	QFN-19 (3x5x1.6)	8.5x4.5mm	36V/1.2A, high voltage, output adj from 0.8V
Sampling	MPM3520E	2	4 to 36	700		✓		Int	✓	LGA-8 (10x10x4.2)	14.0x16.4mm	36V/2A, metal can, ultra-low EMI, output adj from 1.0V to 5.0V
Sampling	MPM3550E	5	4.5 to 36	450	✓	✓		Int	✓	LGA-18 (12x12x4.2)	14.2x18.2mm	36V/5A, metal can, ultra-low EMI, output adj from 1.0V to 5.0V

Synchronous (V_{IN} (Max) > 36V)

Sampling	MPM3570E	0.3	4.5 to 75	30	✓	✓		Int	✓	LGA-8 (10x10x4.2)	16.2x12.4mm	75V/0.3A, metal can, ultra-low EMI, V_{OUT} adj from 1.0V to 5.0V
Sampling	MPM3593	3	3.5 to 45	11	✓	✓	✓	Int	✓	QFN-41 (6x8x1.6)	15.3x12.4mm	45V/3A, high-efficiency, I²C interface sync buck with OTP
Sampling	MPM3530	3	4.5 to 55	450	✓	✓		Ext	✓	QFN-44 (12x10x4)	20x18mm	55V/3A continuous output, programmable F_{SW} with ext sync function

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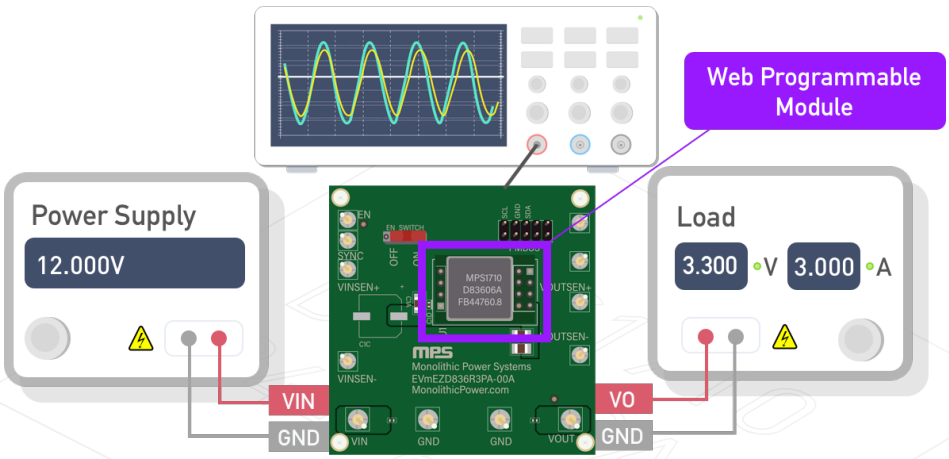

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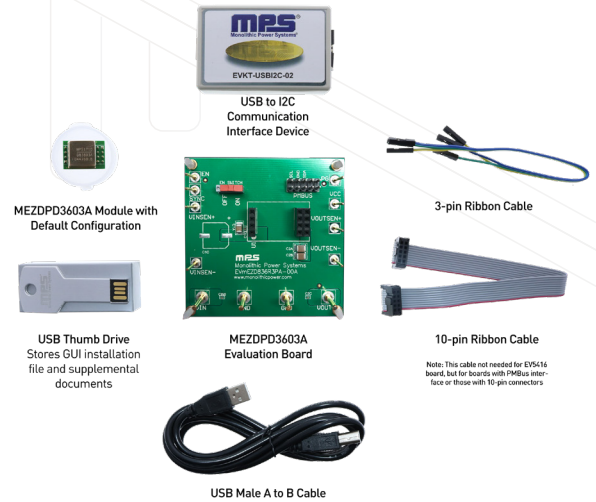

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	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	Light-Load Efficiency	Power Good	Soft Start	Protection Features OCP/SCP/UVLO/OTP	Package	Notes
NEW	mEZD41501A-A	1	2.7 to 4.2	5	No	No	Int	OTP	SIP 27X20-6	Step-up, 600kHz, high efficiency
NEW	mEZD41501A-B	1	2.7 to 10	12	No	No	Int	OTP	SIP 27X20-6	Step-up, 600kHz, high efficiency
NEW	mEZD41501A-C	1	2.7 to 13	15	No	No	Int	OTP	SIP 27X20-6	Step-up, 600kHz, high efficiency
NEW	mEZD41502A-A	2	2.7 to 4.2	5	No	No	Int	OTP	SIP 27X20-6	Step-up, high efficiency
NEW	mEZD41502A-B	2	2.7 to 10	12	No	No	Int	OTP	SIP 27X20-6	Step-up, 600kHz, high efficiency
NEW	mEZD41502A-C	2	3.4 to 13	15	No	No	Int	OTP	SIP 27X20-6	Step-up, 600kHz, high efficiency
NEW	mEZD41503A-A	3	2.7 to 4.2	5	No	No	Int	OTP	SIP 27X20-6	Step-up, high efficiency
NEW	mEZD41503A-B	3	2.7 to 10	12	No	No	Int	OTP	SIP 27X20-6	Step-up, 600kHz, high efficiency

BUCK

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	Light-Load Efficiency	Power Good	Soft Start	Protection Features OCP/SCP/UVLO/OTP	Package	Notes
NEW	mEZD74800A-A	0.3	4.5 to 75	3.3	No	No	Int	✓	SIP 23X16-12	Power supply, with hiccup
NEW	mEZD74800A-B	0.3	4.5 to 75	5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71201A-A	1	4.5 to 24	1	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71201A-B	1	4.5 to 24	1.2	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71201A-C	1	4.5 to 24	1.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71201A-D	1	4.5 to 24	1.8	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71201A-E	1	4.5 to 24	2.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71201A-F	1	4.5 to 24	3.3	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71201A-G	1	6.5 to 24	5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72401A-A	1	4.5 to 36	1	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72401A-B	1	4.5 to 36	1.2	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72401A-C	1	4.5 to 36	1.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72401A-D	1	4.5 to 36	1.8	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72401A-E	1	4.5 to 36	2.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72401A-F	1	4.5 to 36	3.3	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup

BUCK | mEZ PROGRAMMABLE POWER MODULES

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	Light-Load Efficiency	Power Good	Soft Start	Protection Features OCP/SCP/UVLO/OTP	Package	Notes
NEW	mEZD72401A-G	1	4.5 to 36	5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72401A-H	1	6.5 to 36	12	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72402A-A	2	4.5 to 36	1	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72402A-B	2	4.5 to 36	1.2	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72402A-C	2	4.5 to 36	1.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72402A-D	2	4.5 to 36	1.8	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72402A-E	2	4.5 to 36	2.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72402A-F	2	4.5 to 36	3.3	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD72402A-G	2	6.5 to 36	5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71202A-A	2	4.5 to 24	1	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71202A-B	2	4.5 to 24	1.2	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71202A-C	2	4.5 to 24	1.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71202A-D	2	4.5 to 24	1.8	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71202A-E	2	4.5 to 24	2.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71202A-F	2	4.5 to 24	3.3	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71202A-G	2	6.5 to 24	5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZS91202A	2.5	7 to 36	5	No	No	Int	OCP, OTP	SIP 13x45-4	USB charger, efficiency up to 95%
Sampling	mEZDPD3603A -0001	3	4.5 to 36	3.3	No	Yes	Int	OTP, SCP	SIP 23X16-12	Programmable DC/DC power supply
In Dev.	mEZD74003L-ADJ	3	5 to 40	1.23 to 15	No	No	Int	✓	LGA 11x15	Adj V_{OUT} with integrated inductor
In Dev.	mEZD94003A-ADJ	3	5 to 40	1.23 to 15	No	No	Int	✓	LGA 11x15	Sync, adj V_{OUT} power supply

BUCK | mEZ PROGRAMMABLE POWER MODULES

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	Light-Load Efficiency	Power Good	Soft Start	Protection Features OCP/SCP/UVLO/OTP	Package	Notes
NEW	mEZD71203A-A	3	5 to 16	1	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71203A-B	3	5 to 16	1.2	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71203A-C	3	5 to 16	1.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71203A-D	3	5 to 16	1.8	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71203A-E	3	5 to 16	2.5	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71203A-F	3	5 to 16	3.3	No	No	Int	✓	SIP 10X20-3	Step-down, 400kHz F_{SW}, with hiccup
NEW	mEZD71210A-A	10	4.5 to 17	1	No	Yes	Int	OCP, OTP, SCP	SIP 27X20-10	Step-down, 400kHz F_{SW}, with hiccup
Sampling	mEZD81260A	60	5 to 16	6.5	No	Yes	Int	✓	LGA 25X15.5-28	Digital sync, step-down, open-frame

PoE

	Part Number	I_{OUT} (A)	V_{IN} (V)	V_{OUT} (V)	Light-Load Efficiency	Power Good	Soft Start	Protection Features OCP/SCP/UVLO/OTP	Package	Notes
NEW	mEZS84801A	1	37 to 57	12	No	Yes	Int	OCP, OTP, OVP	SIP 45X39-20	12W, IEEE 802.3af-compliant PoE powered device

BUCK REGULATORS | AUTOMOTIVE

5-6V Secondary Synchronous

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	F_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	Ext Sync	Forced CCM	AAM	COT Control	Fixed Frequency	Package	Notes	
NEW	MPM3805A-AEC1	2.6	6	0.6	1	17	0.6	3500	120 / 70	1.2,1.8	Int		✓		✓		QFN-12 (2.5x3.0x0.9)	Module with integrated inductor	+WF
NEW	MPQ2171-AEC1	2.5	5.5	1	4.5		0.6	2800	80 / 40		Int		✓		✓		TSOT23-8	Output discharge, 100% duty cycle	
NEW	MPM3810A-AEC1	2.6	6	1.2	2.1	17	0.6	3500	120 / 70	1.2,1.8	Int		✓		✓		QFN-12 (2.5x3.0x0.9)	Module with integrated inductor	+WF
NEW	MPQ2172-AEC1	2.5	5.5	2	4.5		0.6	2800	80 / 40		Int		✓		✓		TSOT23-8	Output discharge, 100% duty cycle	
NEW	MPQ2169-AEC1	2.7	6	1.4+1.4	2	60	0.6	350 to 3000	55 / 20		Ext	✓	✓	✓		✓	QFN-18 (2.5x3.5)	Dual outputs of 1.4A/1.4A or 0.8A/2A, 100% duty cycle op.	+WF
	MPQ2143-AEC1	2.5	5.5	3	4.8	40	0.6	1200	80 / 40		Int	✓		✓	✓		TSOT23-8	Output discharge, 100% duty cycle	
	MPQ2166-AEC1	2.7	6	2+2	2	60	0.6	350 to 3000	55 / 20		Ext	✓	✓	✓		✓	QFN-18 (2.5x3.5) QFN-18 (2x3)	Dual outputs of 2A/2A or 1A/3A, 100% duty cycle operation	+WF
Sampling	MPQ2167-AEC1	2.7	6	4	6.7	42	0.6	300 to 2200	35 / 30		Ext		✓	✓		✓	QFN-11 (2x3)	100% duty cycle	+WF
Sampling	MPQ2167B-AEC1	2.7	6	4	6.7	42	0.6	300 to 2200	35 / 30		Ext	✓	✓	✓		✓	QFN-11 (2x3)	100% duty cycle	+WF

36-45V Primary Synchronous

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	F_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	Ext Sync	Spread Spectrum	Forced CCM	AAM	Fixed Frequency	Package	Notes	
Sampling	MPQ4300-AEC1	3.5	50	0.5	2			470 / 2200	95 / 50	5, 3.8, 3.3	Int	✓	✓	✓	✓	✓	QFN-16 (4x3) QFN-16 (3x3)	MPQ4430 spread spectrum family, low component count	+WF
Sampling	MPM3509B-AEC1	4	40	0.6	5	600	0.8	410	90 / 50		Int	✓		✓		✓	QFN-17 (3x5x1.6)	Ultra-compact module, integrated inductor, BST/VCC capacitors	+WF
NEW	MPM3509-AEC1	4	40	0.9	3	600	0.8	2200	90 / 50		Int	✓		✓		✓	QFN-17 (3x5x1.6)	Ultra-compact module, integrated inductor, BST/VCC capacitors	+WF
Sampling	MPQ4301-AEC1	3.5	50	1	3			470 / 2200	95 / 50	5, 3.8, 3.3	Int	✓	✓	✓	✓	✓	QFN-16 (4x3) QFN-16 (3x3)	MPQ4430 spread spectrum family, low component count	+WF
NEW	MPQ4431-AEC1	3.3	40	1	2.5	10	0.8	350 to 2500	90 / 80		Ext	✓		✓	✓	✓	QFN-16 (3x4)	Low I_Q, good EMI, and low dropout mode	+WF
	MPM3515-AEC1	4	40	1.5	4	600	0.8	2200	90 / 50		Int	✓		✓		✓	QFN-17 (3x5x1.6)	Ultra-compact module, integrated inductor, BST/VCC capacitors	+WF
NEW	MPQ4415A-AEC1	4	40	1.5	4	600	0.8	450 to 2200	90 / 50		Int	✓		✓		✓	QFN-13 (2.5x3)		+WF
Sampling	MPQ4302-AEC1	3.5	50	2	5			470 / 2200	95 / 50	**5, 3.8, 3.3**	Int	✓	✓	✓	✓	✓	QFN-16 (4x3) QFN-16 (3x3)	MPQ4430 spread spectrum family, low component count	+WF
Sampling	MPQ4312-AEC1	3.3	50	2	5.5	10	0.8	350 to 2500	40 / 17	5, 3.3	Ext	✓	✓	✓	✓	✓	QFN-20 (4x4)	MPQ4312 low I_Q spread spectrum family	+WF
	MPQ4420H-AEC1	4	40	2	4.2	500	0.8	410	90 / 55		Int	✓			✓	✓	TSOT23-8		+WF
	MPQ4420A-AEC1	4	40	2	5.6	500	0.8	410	90 / 55		Int	✓		✓	✓	✓	TSOT23-8	MPQ4312 low I_Q spread spectrum family	
NEW	MPQ4432-AEC1	3.3	40	2.2	5.2	10	0.8	350 to 2500	90 / 40		Ext	✓		✓	✓	✓	QFN-16 (3x4)	Low I_Q, good EMI, and low dropout mode	+WF

Note: +WF+ Available with Wettable Flank

CONTINUE NEXT PAGE >

BUCK REGULATORS | AUTOMOTIVE

36-45V Primary Synchronous

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	I_{OUT} (Max) (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	F_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	Ext Sync	Spread Spectrum	Forced CCM	AAM	Fixed Frequency	Package	Notes	
Sampling	MPQ4303-AEC1	3.5	50	3	6			470 / 2200	95 / 50	5, 3.8, 3.3	Int	✓	✓	✓	✓	✓	QFN-16 (4x3) QFN-16 (3x3)	MPQ4430 spread spectrum family, low component count	+WF
Sampling	MPQ4313-AEC1	3.3	50	3	5.5	10	0.8	350 to 2500	40 / 17	5, 3.8, 3.3	Ext	✓	✓	✓	✓	✓	QFN-20 (4x4)	MPQ4312 low I_Q spread spectrum family	+WF
NEW	MPQ4433-AEC1	3.3	40	3	5.8	10	0.8	350 to 2500	90 / 40		Ext	✓		✓	✓	✓	QFN-16 (3x4)	Low I_Q, good EMI, and low dropout mode	+WF
	MPQ4423H-AEC1	4	40	3	4.4	500	0.8	410	85 / 55		Int	✓			✓	✓	QFN-8 (3x3)		+WF
	MPQ4423A-AEC1	4	40	3	5.7	600	0.8	410	85 / 55		Int	✓		✓		✓	QFN-8 (3x3)		
Sampling	MPQ8883-AEC1	3.5	50	3	1 to 8			250 to 2500	95 / 50	1.8 to 12	Int	✓	✓	✓	✓	✓	QFN-16 (3X3)	I^2C interface, OTP, digitally prog. output voltage, frequency, comp., protection, slew rate, & more	
	MPQ4473-AEC1	4.5	40	3.5	6.6	500	0.8	200 to 1000	40 / 20		Ext						QFN-8 (3x3)	COT control	
NEW	MPQ4430-AEC1	3.3	40	3.5	5.8	10	0.8	350 to 2500	90 / 40	3.3, 3.8	Ext	✓		✓	✓	✓	QFN-16 (3x4)	Low I_Q, good EMI, and low dropout mode	+WF
Sampling	MPQ4314-AEC1	3.3	50	4	8	10	0.8	350 to 2500	40 / 17	5, 3.3	Ext	✓	✓	✓	✓	✓	QFN-20 (4x4)	MPQ4312 low I_Q spread spectrum family	+WF
	MPQ4470-AEC1	4.5	40	5	8	500	0.8	100 to 1000	40 / 20		Ext						QFN-20 (3x4)	Prog. soft-start time, SCP, OCP, OVP latch, COT control	
	MPQ4470A-AEC1	4.5	40	5	8	500	0.8	100 to 1000	40 / 20		Ext						QFN-20 (3x4)	Prog. soft-start time, SCP, OCP, COT control	
Sampling	MPQ4315-AEC1	3.3	50	5	8	10	0.8	350 to 2500	40 / 17	5, 3.3	Ext	✓	✓	✓	✓	✓	QFN-20 (4x4)	MPQ4312 low I_Q spread spectrum family	+WF
Sampling	MPQ4316-AEC1	3.3	50	6	13	10	0.8	350 to 2500	40 / 17	5, 3.3	Ext	✓	✓	✓	✓	✓	QFN-20 (4x4)	MPQ4312 low I_Q spread spectrum family	+WF
Sampling	MPQ4436-AEC1	3.3	50	6	13	10	0.8	350 to 2500	40 / 17		Ext	✓	✓	✓	✓	✓	QFN-20 (4x4)	Multiphase, low I_Q	+WF
Sampling	MPQ4317-AEC1	3.3	50	7	13	10	0.8	350 to 2500	40 / 17	5, 3.3	Ext	✓	✓	✓	✓	✓	QFN-20 (4x4)	MPQ4312 low I_Q spread spectrum family	+WF
NEW	MPQ2918-AEC1	4	40	Controller		750	0.8	100 to 1000			Ext	✓		✓	✓	✓	TSSOP-20 EP QFN-20 (3x4)	High max duty cycle (99.5%)	

DDR MEMORY POWER

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

Note: +WF+ Available with Wettable Flank

BUCK REGULATORS | AUTOMOTIVE

HV Synchronous

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	I_{OUT} (Max) (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	F_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Soft Start	Ext Sync	Forced CCM	AAM	Hysteric Control	Fixed Frequency	Package	Notes
	MPQ4569-AEC1	4.5	80	0.3	0.72	20	1		1200 / 450	Ext			✓	✓		QFN-10 (3x3) SOIC-8E	Programmable soft start
NEW	MPQ4569A-AEC1	4.5	80	0.3	0.72	20	1		1200 / 500	Ext			✓	✓		QFN-10 (3x3)	Programmable soft start
	MPQ2420-AEC1	4.5	80	0.3	0.72	20	1		1200 / 450	Ext			✓	✓		TSSOP16	Integrated separate windowed watchdog die
NEW	MPQ2420A-AEC1	4.5	80	0.3	0.72	20	1		1200 / 450	Ext			✓	✓		TSSOP16	Integrated separate windowed watchdog die, default enable on
NEW	MPQ4590-AEC1	7.5	700	0.4	0.66	200	1.7		13.5	Int		✓		✓		SOIC-8E	Primary-side CV control, supporting buck, buck-boost, boost & flyback topologies
Sampling	MPQ4571-AEC1	4.5	65	1	1.9	30	0.8	200 to 2200	200 / 45	Int	✓	✓	✓		✓	QFN-12 (2.5x3)	Low I_Q, compact
Sampling	MPQ4572-AEC1	4.5	65	2	3.5	30	0.8	200 to 2200	200 / 45	Int	✓	✓	✓		✓	QFN-12 (2.5x3)	Low I_Q, compact
	MPQ4570-AEC1	4.5	60	3	5.7	520	1	100 to 1000	90 / 70	Ext	✓		✓		✓	TSSOP20 EP	Programmable soft-start time
NEW	MPQ2908A-AEC1	4	60	Controller		750	0.8	100 to 1000		Ext	✓	✓	✓		✓	TSSOP20 EP QFN-20 (3x4)	High max duty cycle (99.5%)

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)	Soft Start	Ext Sync	Forced CCM	AAM	Fixed Frequency	Package	Notes	
NEW	MPQ2908A-AEC1	4	60	750	0.5	0.8	100 to 1000	Ext	✓	✓	✓	✓	TSSOP20 EP QFN-20 (3x4)	High max duty cycle (99.5%)	+WF
NEW	MPQ2918-AEC1	4	40	750	0.5	0.8	100 to 1000	Ext	✓	✓	✓	✓	TSSOP20 EP QFN-20 (3x4)	High max duty cycle (99.5%)	+WF

Modules

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max)(V)	I_{OUT} (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	F_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Fixed Output Versions (V)	Soft Start	Ext Sync	Forced CCM	Package	Notes	
NEW	MPM3805A-AEC1	2.6	6	0.6	1	17	0.6	3500	120 / 70	1.2, 1.8	Int		✓	QFN-12 (2.5x3.0x0.9)	Module with integrated inductor	+WF
NEW	MPM3810A-AEC1	2.6	6	1.2	2.1	17	0.6	3500	120 / 70	1.2, 1.8	Int		✓	QFN-12 (2.5x3.0x0.9)	Module with integrated inductor	+WF
Sampling	MPM3509B-AEC1	4	40	0.6	5	600	0.8	410	90 / 50		Int	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module with integrated inductor, BST/VCC capacitors	+WF
NEW	MPM3509-AEC1	4	40	0.9	3	600	0.8	2200	90 / 50		Int	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module with integrated inductor, BST/VCC capacitors	+WF
	MPM3515-AEC1	4	40	1.5	4	600	0.8	2200	90 / 50		Int	✓	✓	QFN-17 (3x5x1.6)	Ultra-compact module with integrated inductor, BST/VCC capacitors	+WF

Note: +WF+ Available with Wettable Flank

BUCK REGULATORS | AUTOMOTIVE

Non-Synchronous

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	I_{OUT} (Max) (A)	I_{SW} Limit (Typ) (A)	I_Q (Typ) (µA)	V_{FB} (V)	F_{SW} (kHz)	$R_{DS(ON)}$ (mΩ)	Soft Start	Ext Sync	Forced CCM	Fixed Frequency	Package	Notes
	MPQ2459-AEC1	4.5	60	0.5	1.25	730	0.8	480	1000	Int		✓	✓	TSOT23-6	Superior light-load efficiency
	MPQ2451-AEC1	3.3	40	0.6	1	130	0.8	2000	500	Int		✓	✓	TSOT23-6L QFN-6L	Internal comp and SS, programmable, fixed output versions: 3.3V, 5V
	MPQ2454-AEC1	4.5	40	0.6	1.8	60	0.8	350 to 2300	200	Ext	✓	✓	✓	QFN-10 (3x3) MSOP-10 EP	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)	Superior light-load efficiency
	MPQ4561-AEC1	3.8	60	1.5	2.5	140	0.8	250 to 2000	300	Ext		✓	✓	QFN-10 (3x3)	Superior light-load efficiency
	MPQ4560-AEC1	3.8	60	2	3.2	140	0.8	250 to 2000	250	Int		✓	✓	QFN-10 (3x3) SOIC-8E	Superior light-load efficiency
	MPQ4462-AEC1	3.8	60	3.5	5.5	120	0.8	250 to 4000	150	Int		✓	✓	QFN-10 (3x3) SOIC-8E	Superior light-load efficiency
Sampling	MPQ4467-AEC1	3.3	40	2.5	5.6	10	0.8	250 to 2500	95	Ext	✓	✓	✓	QFN-16 (3x4)	Low dropout, selectable in-phase or 180° out-of-phase
NEW	MPQ4468-AEC1	3.3	40	3	5.8	10	0.8	350 to 2500	90	Ext	✓	✓	✓	QFN-16 (3x4)	Low dropout, selectable in-phase or 180° out-of-phase
Sampling	MPQ4469-AEC1	3.3	40	5	7.7	10	0.8	350 to 2500	90	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	✓	✓	✓	TSSOP20F	Dual output

BOOST REGULATORS

Synchronous

	Part Number	V_{IN} (Min) (V)	V_{IN} (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)	Fixed Frequency	Package	Notes
	MPQ3410-AEC1	1.8	6	6	1.3	360	1.19	550	530 / 300	✓	TSOT23-5	Output disconnect
NEW	MPQ3428A-AEC1	3	20	22	19	110	1.2	600	18	✓	QFN-22 (3x4)	Input disconnect function, external high-side gate drive

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)	Soft Start	Sync	Package	Notes
NEW	MPQ3910-AEC1	5	35	290	1	1.5	30 to 400	Ext	✓	MSOP-10	Peak current mode, light load operation, supports >10A, OVP, SCP, OTP

Non-Synchronous

	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)	Fixed Frequency	Package	Notes
	MPQ3425-AEC1	3.1	55	55	5	650	1.23	300 to 2000	90	✓	QFN-14 (3x4)	Programmable UVLO and EN hysteresis
	MPQ3426-AEC1	3.2	45	35	8.5	650	1.23	300 to 2000	90	✓	QFN-14 (3x4)	Programmable UVLO and EN hysteresis

SUPERVISOR CIRCUITS | AUTOMOTIVE

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Reset Threshold (V)	Threshold Accuracy (%)	I_Q (Typ) (µA)	Package	Notes
	MPQ6400-33-AEC1	1.8	5.5	3.07	±1.0	1.6	QFN-6 (2x2)	Voltage supervisor, 3.3V
Sampling	MPQ6400-01-AEC1	0.9	5.5	0.4	±1.0	1.6	QFN-6 (2x2)	Voltage supervisor, adjustable
	MPQ6411-AEC1	4.8	5	4.5		16	SOIC-8E	5V VDD, windowed watchdog, power-on reset
	MPQ6411-33-AEC1	3.1	3.3	2.9		10	SOIC-8E	3.3V VDD, windowed watchdog, power-on reset

AUDIO PRODUCTS (CLASS-D AUDIO AMPLIFIERS)

Stereo

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	P_{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Package	Notes
Sampling	MPQ7790-AEC1	5	18	10	93	0.79 @ 1W	20	TSSOP20 EP	Low EMI, analog input Class D for mono speaker in bridge-tied load configuration

ANALOG SWITCH

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Switcher Current (A)	T_{ON} (ns)	T_{OFF} (ns)	Power Supply Current (µA)	Bandwidth (MHz)	$R_{DS(ON)}$ (Ω)	Package	Notes
Sampling	MPQ2735-AEC1	1.65	5.5	0.1	29	23	1	50	0.25	QFN-10 (1.4x1.8)	Low-voltage 0.45Ω dual SPDT analog switches, separate control inputs

LOAD SWITCH

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Load Current	I_Q (Typ) (mA)	$R_{DS(ON)}$ (mΩ)	Package	Notes
	MPQ5073-AEC1	0.5	5.5	2	0.18	50	QFN-12 (2x2)	Adjustable current limit
Sampling	MPQ5069-AEC1	4.5	28	10	1.5	7	QFN-22 (3x5)	Adjustable current limit
Sampling	MPQ5060-AEC1	7.5	36	2	5	400	QFN-22 (3x5)	Quad-channel smart switch, 55V load dump, independent fault indication pins for open load, short to GND/VIN, overload

Note: +WF+ Available with Wettable Flank

USB CHARGERS | AUTOMOTIVE

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	Dual / Single Ports	I_{OUT} (A)	I_Q (Typ) (mA)	F_{SW} (kHz)	DCP Schemes for BC1.2, Divider Mode, 1.2V/1.2V Mode	Spread Spectrum	Package	Notes	
NEW	MPQ4491-AEC1	7	40	Single	2.5	1.6	Selectable	✓		QFN-25 (4x4)	Auto-detect, cable compensation	
NEW	MPQ4475-AEC1	7	40	Single	2.5	1.6	Selectable	✓	✓	QFN-25 (4x4)	Programmable line drop compensation	
	MPQ4481-AEC1	6	40	Single	3	0.7	Selectable	✓		QFN-26 (5x5)	Selectable V_{OUT}: 5.1V / 5.17V / 5.3V, low dropout mode	
	MPQ4485-AEC1	6	40	Dual	3(x2)	1	450	✓		QFN-26 (5x5)	USB2 supports CDP mode, Type-C 5V @ 3A DFP mode, load shedding versus temperature, forced CCM operation	
	MPQ4487-AEC1	6	40	Dual	3(x2)	1	Selectable		✓	QFN-26 (5x5)	EN control for USB, fault indication, support Type-C 5V @ 3A DFP mode, forced CCM operation, load shedding versus temperature	
	MPQ4488-AEC1	6	40	Dual	3(x2)	1	Selectable	✓	✓	QFN-26 (5x5)	Supporting Type-C 5V @ 3A DFP mode, selectable V_{OUT}: 5.1V / 5.17V / 5.3V	
Sampling	MPQ4480-AEC1	4.2	40		6	1	Selectable			QFN-25 (4x5)	2.75A/3.75A/7.5A CC output current limit, battery short protection, adjustable line drop compensation, forced PWM mode, low dropout mode, 1V to 20V output adj	+WF
Sampling	MPQ4483-AEC1	4.2	40	Single	3	1	Selectable	✓	✓	QFN-25 (4x5)	Supporting BC1.2 DCP and CDP mode, supporting bidirectional USB 2.0 high-speed data switch, low dropout mode, 3.55A/3.75A CC output current limit	+WF
Sampling	MPQ4210-AEC1	4	40			0.8	Selectable		✓	QFN-27 (5x5)	USB Type-C PD sync buck-boost controller with I^2C, selectable PSM and FCCM	+WF
Sampling	MPQ4230	4	40		5	0.18	Selectable		✓	QFN-21 (4x5)	Sync buck-boost converter, line drop compensation, I^2C interface and two times programmable, battery short-to-ground protection driver, load shedding alert	
Sampling	MPQ5029	2.7	24	Single	3	0.25		✓		QFN-14 (2x3)	Selectable QC 3.0 (3.6V - 12V_{OUT}), support Type-C 5V @ 3A DFP mode, support short-to-battery protection, NTC pin for thermal management, adjustable OVP threshold, input over-voltage shutdown protection	+WF
Sampling	MPQ5029-C	2.7	24	Single	3	0.25		✓		QFN-14 (2x3)	Support CDP mode, selectable QC 3.0 (3.6V - 12V_{OUT}), Type-C 5V @ 3A DFP mode, Support short to battery protection, Type-C load shedding versus temperature feature, line drop compensation for 5V output, fault indication	+WF
Sampling	MPQ4214-AEC1	4.5	40		Prog	0.8	Selectable			QFN-27 (5x5)	USB Type-C PD, synchronous buck-boost controller with I^2C	
Sampling	MPQ4490-AEC1	6	36		3	0.2	Selectable			QFN-26 (5x5)	Low I_Q, buck converter with single USB charging port with selectable output voltage	

Note: +WF+ Available with Wettable Flank

MOTOR DRIVERS | AUTOMOTIVE

Half-Bridge Gate Driver

	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	Fall Time	Turn Off/On Delay	Package	Notes	
NEW	MPQ18021-A-AEC1	9	18	100	18	1	2.5	3.5	12ns	9ns	5ns	SOIC-8E	100V half-bridge gate driver	+WF
NEW	MPQ18024-AEC1	9	18	100	18	1	4	5.9	15ns	12ns	20ns	SOIC-8E	100V half-bridge gate driver	+WF
	MPQ1922-AEC1	4	15	100	15	1			20µs	20µs	20µs	SOIC-8E QFN-10 (4x4)	Integrated current sense amp 9-15ns rise/fall (2.2nF load)	+WF

Half-Bridge Driver (Integrated MOSFET)

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	BST to SW (Max) (V)	# of Channels	$R_{DS(ON)}$ (mΩ)	Standby I_Q (Typ) (µA)	Peak Output Current (A)	Rise Time	Fall Time	Turn Off/On Delay	Open-Load Detect	Serial Interface	Package	Notes	
	MPQ8039-AEC1	7.5	28	6	1	100	2.5	9	20ns	20ns	70ns			SOIC-8E	General-purpose, high-frequency, half bridge for audio amplifier, wireless charging, and more	+WF
	MPQ6523-AEC1	7	40	1	3	1100	6	0.9	20µs	20µs	60µs	✓	✓	QFN-24 (4x4)	Independent control, comp. protections, daisy chainable, serial data interface up to 3MHz	+WF
	MPQ6526-AEC1	7	40	1	6	650	6	0.9	20µs	20µs	50µs	✓	✓	QFN-24 (4x4) QFN-24 (5x5)	Independent control, comp. protections, daisy chainable, serial data interface	+WF
Sampling	MPQ6527-AEC1	5.5	40	1	10	1300	6	0.8	2µs			✓	✓	TSSOP28 EP	Independent control, comp. protections, daisy chainable, SPI interface up to 5MHz	+WF

POSITION SENSORS

End-of-Shaft, Side-Shaft

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Supply Current (mA)	Resolution (bits)	Output Format	ABZ Resolution (bit)	PWM Freq (Hz)	Latency (µs)	Start-Up Time (ms)	Refresh Rate (kHz)	Filter Cut-Off Frequency (Hz)	Magnetic Field Detection	Magnetic Field Range (mT)	Package	
Sampling	MAQ430-AEC1	3	3.6	11.7	12	SPI, ABZ, UVW	10		10	12	980	390	✓	30 - 150	QFN-16 (3x3)	+WF
Sampling	MAQ470-AEC1	3	3.6	11.7	12	SPI, ABZ, UVW	10	240	10	12	980	390	✓	30 - 150	QFN-16 (3x3)	+WF

Note: +WF+ Available with Wettable Flank

LED LIGHTING | AUTOMOTIVE

Backlight

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} Per Channel (mA)	F_{SW} (kHz)	PWM, Analog Dimming Modes	Open, Short LED Protection	Channel Current Matching (%)	Interface	Package	Notes
	MPQ3386-AEC1	4.5	25	Boost	6	30	625 or 1250	✓	✓	3		QFN-24 (4x4)	3% current matching accuracy
	MPQ3387L-AEC1	3	25	Boost	6	45	500 or 1250	✓	✓	3		QFN-24 (4x4)	3% current matching accuracy
Sampling	MPQ3367-AEC1	3.5	36	Boost	6	100	200, 400, 1000, 2200	✓	✓	2.5	I²C	QFN-24 (4x4) TSSOP28 EP	Spread spectrum, thermal derating, fault pin, rich protection features

Telltale

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Topology	# of Channels	I_{OUT} Per Channel (mA)	F_{SW} (kHz)	PWM, Analog Dimming Modes	Open, Short LED Protection	Channel Current Matching (%)	Interface	Package	Notes
Sampling	MPQ3326-AEC1	2.7	18	Boost	16	25	Selec.	✓	✓	2	I²C	QFN-24 (4x4) TSSOP28 EP	Independent channel control, can be daisy chained, digital configuration
Sampling	MPQ3324-AEC1	2.7	18	Boost	8	25	Selec.	✓	✓	2	I²C	QFN-24 (4x4) TSSOP28 EP	Independent channel control, can be daisy chained, digital configuration

Illumination & Signaling LED Drivers

	Part Number	V_{IN} (Min) (V)	V_{IN} (ABS Max) (V)	LED Power (W)	Max LEDs in Series	Current Limit (Typ) (A)	$R_{DS(ON)}$ (mΩ)	Dimming Modes	Topology	Max Continuous Current (A)	F_{SW} (kHz)	LED Protection	Package	Notes	
	MPQ2489-AEC1	6	55	4	10	Adj	500	PWM, Analog	Low-Side Buck	1.4	200 to 600	Open	QFN-6 (3x3)	Stop, turning light applications	
	MPQ2483A-AEC1	4.5	55	10	10	3	280	PWM, Analog	Buck, Buck-Boost	2.5	250 to 1350	Open	QFN-10 (3x3) SOIC-8E	Daytime-running, fog applications	
NEW	MPQ24833B-AEC1	4.5	55	12	10	3	150	PWM, Analog	Buck, Buck-Boost	3	250 to 1350	Open	QFN-10 (3x3) SOIC-8E	Output short-circuit protection, daytime-running, fog applications	
NEW	MPM6010-AEC1	4	40	12	2	0.2	85/50	PWM	Buck	1.5	2200	Open, Short	QFN-17 (3x5x1.6)	Module int. AEC-Q200 2.2µH inductor, BST/VCC caps., sync. op., output over-current protection, fault pin, rear & puddle apps.	
NEW	MPQ4425A-AEC1	4	40	12	2	4	85/50	PWM	Buck	1.5	2200	Open, Short	QFN-13 (2.5x3)	Synchronous operation, output over-current protection, fault pin, rear & puddle apps.	+WF
NEW	MPQ4425B-AEC1	4	40	12	2	4	85/50	PWM	Buck	1.5	410	Open, Short	QFN-13 (2.5x3)	Synchronous operation, output over-current protection, fault pin, rear & puddle apps.	+WF
Sampling	MPQ7200-AEC1	4.5	50	20	7	6	40/38	PWM, Analog	Buck, Buck-Boost	3 Buck / 1.2A Buck-Boost	2200 Buck 1000 Buck -Boost	Open, Short	QFN-18 (3x4)	Int current sense, config., 5% LED current acc., fast transient op., thermal derating, 2-step dim., spread spectrum, multiphase, fault pin, daytime-running, fog, low & high beam apps	+WF

Note: +WF+ Available with Wettable Flank

LINEAR REGULATORS | AUTOMOTIVE

5V Secondary LDO

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V_{FB} (V)	I_Q (Typ) (µA)	Enable Pin	Adjustable Option (V)	Power Good	Package	Notes
MPQ20056-AEC1	2.5	5.5	250	0.0003	63	0.8	10	✓	0.8 to 5		QFN-8 (2x2) TSOT23-5	Fixed output versions: 1.8V, 2.5V, 3.3V
MPQ8904-AEC1	2.7	6.5	500	0.001	26	0.5		✓	0.5 to 5	✓	QFN-8 (2x3)	
MPQ20051-AEC1	2.5	5.5	1000	0.0003	63	0.8	30	✓	0.8 to 5		QFN-8 (3x3)	

40V Primary LDO

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (mA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V_{FB} (V)	I_Q (Typ) (µA)	Enable Pin	Adjustable Option (V)	Package	Notes
MPQ2016-AEC1	4	42	30	0.0003	50	1.23	12	✓	1.2 to 20	QFN-8 (2x3)	
MPQ2013AGJE-C672-AEC1	2.5	40	100	0.005	41	1.215	3.2	✓	1.215 to 15	TSOT23-4	Fixed output versions: 3.3V, 2.5V, 5V
MPQ2013A-AEC1	2.5	40	150	0.005	41	1.215	3.3	✓	1.215 to 15	QFN-6 (2x2) QFN-8 (3x3)	Fixed output verions: QFN-8: 3.3V, 2.5V, 5V, 1.8V QFN-6: 3.3V, 5V
MPQ2019-AEC1	3	40	300	0.04	45	1.25	10	✓	1.2 to 15	SOIC-8 EP	Fixed output versions: 3.3V, 5V, power good
MPQ2029-AEC1	3	40	450	0.04	45	1.25	10	✓	1.2 to 15	SOIC-8 EP	

HV BUCK REGULATORS | AC/DC POWER CONVERTERS

500V Single Output

	Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	$R_{DS(ON)}$ (Ω)	Breakdown Voltage (V)	No-Load Power (mW)	Package	Notes
	MP150	2	20 (AC/DC)	265 (AC/DC)	30	500	150	TSOT23-5 SOIC-8	Offline regulator, up to 200mA output current
	MP153	6	20 (AC/DC)	265 (AC/DC)	15	500	150	TSOT23-5 SOIC-8	Offline regulator, up to 360mA output current
	MP155	4	20 (AC/DC)	265 (AC/DC)	20	500	100	TSOT23-5 SOIC-8	Offline regulator, up to 220mA output current
	MP156	4	20 (AC/DC)	265 (AC/DC)	20	500	30	TSOT23-5 SOIC-8	Offline regulator, up to 220mA output current
	MP157	6	20 (AC/DC)	265 (AC/DC)	10	500	100	TSOT23-5 SOIC-8	Offline regulator, up to 360mA output current
	MP158	2	20 (AC/DC)	265 (AC/DC)	20	500	30	TSOT23-5 SOIC-8	Offline regulator, up to 70mA output current

700V Single Output

	MP171	2	20 (AC/DC)	305 (AC/DC)	20	700	30	TSOT23-5 SOIC-8	Offline regulator, up to 60mA output current
	MP172	3	20 (AC/DC)	305 (AC/DC)	16	700	30	TSOT23-5 SOIC-8	Offline regulator, up to 120mA output current
	MP173	4	20 (AC/DC)	305 (AC/DC)	14	700	30	TSOT23-5 SOIC-8	Offline regulator, up to 280mA output current
	MP174	5	20 (AC/DC)	305 (AC/DC)	13.5	700	30	TSOT23-5 SOIC-8	Offline regulator, up to 400mA output current
NEW	MP175	10	30 (AC/DC)	305 (AC/DC)	4.5	700	30	SOIC-8 PDIP8-7B	Offline regulator, up to 600mA output current

700V Dual Output

	Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	LDO V_{OUT} (V)	Relay Driver	$R_{DS(ON)}$ (Ω)	Breakdown Voltage (V)	No-Load Power (mW)	Package	Notes
NEW	MP161A	2	85 (AC/DC)	305 (AC/DC)	3.3/5	✓	17	700	10	SOIC-16	Ultra-low standby power, integrated 240mA current-limited switching regulator, linear regulator, and relay driver
NEW	MP161B	3	85 (AC/DC)	305 (AC/DC)	3.3/5	✓	14	700	10	SOIC-16	Ultra-low standby power, integrated 420mA current-limited switching regulator, linear regulator, and relay driver
NEW	MP161C	4	85 (AC/DC)	305 (AC/DC)	3.3/5	✓	13.5	700	10	SOIC-16	Ultra-low standby power, integrated 660mA current-limited switching regulator, linear regulator, and relay driver
NEW	MP163A	2	20 (AC/DC)	305 (AC/DC)	3.3/5		16	700	30	SOIC8-7B SOIC-16	700V, non-isolated, offline regulator with integrated LDO
NEW	MP163B	3	20 (AC/DC)	305 (AC/DC)	3.3/5		14	700	30	SOIC8-7B SOIC-16	700V, non-isolated, offline regulator with integrated LDO
NEW	MP163C	4	20 (AC/DC)	305 (AC/DC)	3.3/5		13.5	700	30	SOIC8-7B SOIC-16	700V, non-isolated, offline regulator with integrated LDO

FLYBACK | AC/DC POWER CONVERTERS

Secondary-Side Regulation

	Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Type	F_{SW} (Max) (kHz)	Control Method	Breakdown Voltage (V)	$R_{DS(ON)}$ (Ω)	Package	Notes
	HFC0100	Ext FET	85AC	305AC	Controller		Quasi-Resonant	700		SOIC-8	Quasi-resonant
	HFC0300	Ext FET	85AC	305AC	Controller		Variable Freq	700		SOIC-7	Variable off-time
	HFC0310	Ext FET	85AC	305AC	Controller	600	Fixed Freq			SOIC-8	Programmable fixed frequency
	HFC0400	Ext FET	85AC	305AC	Controller	65	Fixed Freq	700		SOIC8-7A	Not recommended for new design - use HFC0500
	HFC0500	Ext FET	85AC	305AC	Controller	65	Fixed Freq	700		SOIC8-7A	HV start-up, X-cap discharge, brown in/out
	HFC0511	Ext FET	85AC	305AC	Controller	130	Fixed Freq	700		SOIC8-7A	130kHz fixed frequency, ultra-low no-load power consumption
	HF900	10	85AC	440AC	Regulator	300	Peak Current	900	13	PDIP8-7 EP SOIC14-11	Integrated 900V MOSFET
NEW	HF920	10	85AC	440AC	Regulator	150	Peak Current	900	15	PDIP8-7 EP SOIC14-11 SOIC8-7A	Integrated 900V MOSFET
NEW	HF500-7	7	85AC	305AC	Regulator	65	Fixed Freq	700	12	SOIC8-7B	Integrated 700V MOSFET
NEW	HF500-15	15	85AC	305AC	Regulator	65	Fixed Freq	700	4.5	SOIC8-7B	Integrated 700V MOSFET
NEW	HF500-30	30	85AC	305AC	Regulator	65	Fixed Freq	700	1.4	PDIP8-7B	Integrated 700V MOSFET
Preview	HF500-40	40	85AC	305AC	Regulator	65	Fixed Freq	700	0.9	PDIP8-7B	Integrated 700V MOSFET

Primary-Side Regulation

	Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Type	Breakdown Voltage (V)	$R_{DS(ON)}$ (Ω)	Package	Notes
	MP020-5	7	85AC	305AC	Regulator	700	10	SOIC8-7A	Not recommended for new design
NEW	MP020A-5	7	85AC	305AC	Regulator	700	10	SOIC8-7A	CV/CC control
	MP023	Ext FET	85AC	305AC	Controller	700		SOIC8-7A	CV/CC control
NEW	MP024-10	10	85AC	305AC	Regulator	700	4.5	SOIC8-7B	CV/CC control

All-in-One Flyback with Primary and Secondary Controller

	Part Number	Typ Max Power (W)	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Type	Breakdown Voltage (V)	F_{SW} (Max) (kHz)	Package	Notes
NEW	MPX2001	Ext FET	85AC	305AC	Controller	650	85	SOICW-20	Integrated SR driver with capacitive isolation

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

	Part Number	Control Method	Capacitive Mode Protection	Adaptive Deadtime Control	High-Voltage Start-Up	Package	Notes
	HR1000	Analog	No	No	No	SOIC-16	Not recommended for new design – use HR1000A
	HR1000A	Analog	No	No	No	SOIC-16	Variable frequency, high-power applications
NEW	HR1001B	Analog	Yes	Yes	No	SOIC-16	Variable frequency, two-level OCP (1st level auto-restart, 2nd level latch)
NEW	HR1001A	Analog	Yes	Yes	No	SOIC-16	Two-level OCP via frequency shift and auto-restart, other features same as HR1001B
NEW	HR1001L	Analog	Yes	Yes	No	SOIC-16	Two-level OCP via frequency shift and latch, other features same as HR1001B
NEW	HR1001C	Analog	Yes	Yes	No	SOIC-16	Improved surge performance compared to HR1001B

PFC + LLC COMBO CONTROLLER

	Part Number	LLC Control Method	PFC Control Method	Topology	High-Voltage Start-Up	Package	Notes
	HR1200	Analog	Digital CCM/DCM	PFC+LLC	Yes	TSSOP28 SOIC-28	Digital PFC + analog LLC with graphic user interface
	HR1201	Analog	Digital CCM/DCM	PFC+LLC	No	TSSOP28 SOIC-28	Digital PFC + analog LLC with graphic user interface
Preview	HR1203	Analog	Digital CCM/DCM	PFC+LLC	Yes	TSSOP28 SOIC-28	Digital PFC + analog LLC with graphic user interface, replaces HR1200
Preview	HR1204	Analog	Digital CCM/DCM	PFC+LLC	No	TSSOP28 SOIC-28	Digital PFC + analog LLC with graphic user interface, replaces HR1201

PFC

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{GATE_SRC} / I_{GATE_SINK} (mA)	Control Method	Topology	High-Voltage Start-Up	Package	Notes
MP44010	85AC	305AC	-350 / 600	Boundary Mode	Boost, Buck-Boost	No	SOIC-8 DIP8	Controller, ultra-low start-up current (15μA)
MP44011	85AC	305AC	-350 / 600	Boundary Mode	Boost, Buck-Boost	No	SOIC-8	Harmonic injection function (reduced capacitor value and inductor size compared with MP44010)
MP44014	85AC	305AC	-750 / 800	Boundary Mode	Boost, Buck-Boost	No	SOIC-8	Controller (BOM to BOM with L6562)
MP44014A	85AC	305AC	-750 / 800	Boundary Mode	Boost Buck-Boost	No	SOIC-8	Controller (BOM to BOM with L6562A)

SYNCHRONOUS RECTIFIERS | AC/DC POWER CONVERTERS

Flyback Technology (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)	Total $R_{DS(ON)}$ (mΩ)	Package	Notes
	MP6900	Controller	6	27	400	180	70	Ext FET	QFN-6 (3x3)	
	MP6902	Controller	6	27	400	180	70	Ext FET	SOIC-8	
	MP6905	Controller	8	24	400	180	30	Ext FET	SOIC-8	Light-load management, not recommended for new design – use MP6906
	MP6906	Controller	4.2	35	400	180	30	Ext FET	SOIC-8 TSOT23-6	VCC down to 4.5V, light-load management, turn-off blanking and SYNC feature
	MP6907	Controller	4.2	35	400	180	50	Ext FET	SOIC-8 TSOT23-6	VCC down to 4.5V, light-load management, turn-off blanking and SYNC feature, better efficiency than MP6902
NEW	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)
Preview	MP6908A	Controller	4	13	600	180	40	Ext FET	TSOT23-6	Very high frequency, fast turn-off intelligent rectifier, slew rate detection, self-biased (no need for auxiliary winding)
NEW	MP6909	Controller	4	13	400	180	40	Ext FET	TSOT23-6	Fast turn-off intelligent rectifier, slew rate detection
	MP6960	Regulator	8	24	400	180	70	Ext FET	SOIC-8	Integrated CC/CV controller
NEW	MP6910A	Ideal diode	8	24	250	100		15	SOIC-8 TO220-3	MP6902 integrated 12mΩ, 100V power switch
Preview	MP9988	Ideal diode	4.2	35	250	100		11.5	SOIC-8 PDIP8 EP	MP6907 integrated 9mΩ, 100V power switch
Preview	MP6919	Ideal diode	4	13	400	180		15	SOIC-8	MP6908 integrated 12mΩ, 100V power switch
Preview	MP9989	Ideal diode	4	13	400	180		11.5	SOIC-8 QFN-14 (4x5)	MP6907 integrated 10mohm, 100V power switch
Preview	MP9989A	Ideal diode	4	13	600	180		11.5	SOIC-8 QFN-14 (4x5)	MP6908 integrated 10mΩ, 100V power switch

LLC Topology (Fast Turn-Off, Intelligent)

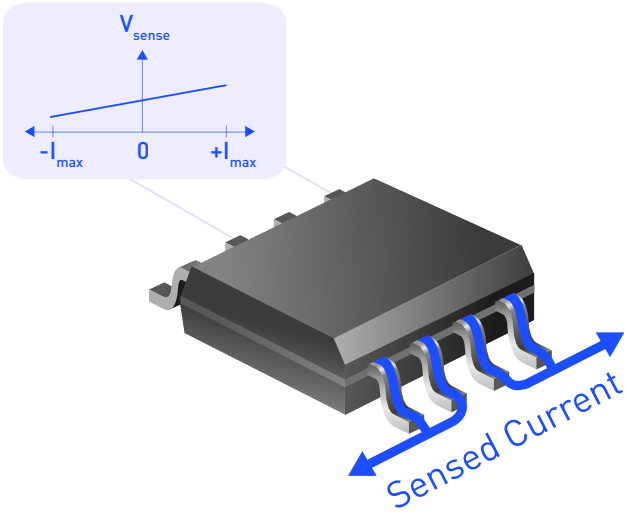
	Part Number	Type	F_{SW} (Max) (kHz)	Drain Rating (V)	Regulation Voltage (mV)	Single / Dual	Package	Notes
	MP6903	Controller	300	180	70	Single	SOIC-8E	High-noise immunity, light-load management
	MP6922	Controller	300	180	70	Dual	SOIC-8E SOIC-14	V_{FWD} 70mV for LLC
	MP6922A	Controller	300	180	30	Dual	SOIC-8E SOIC-14	High efficiency, V_{FWD} 30mV for LLC, light-load management
	MP6922L	Controller	300	180	70	Dual	SOIC-8	V_{FWD} 70mV for LLC comparing to MP6922, shorten LL mode entry T_{ON} threshold, disable light-load entry when no gate pulse
	MP6923	Controller	300	180	15	Dual	SOIC-14	High-power optimized
NEW	MP6924	Controller	500	180	45	Dual	SOIC-8	CCM / DCM compatible, dual LLC synchronous rectifier, low sleep mode current, 175µA low quiescent current in light-load mode
NEW	MP6924A	Controller	500	180	29	Dual	SOIC-8	Improved noise immunity (1.75µs vs. 210ns), EMI performance, and efficiency (29mV vs. 45mV) compared to MP6924

ISOLATED CURRENT SENSOR | AC/DC POWER CONVERTERS

Industrial / Automotive

	Part Number	Sensed Current Range (V)	V_{CC} (V)	Isolation Voltage (kVRMS)	Temperature Range (°C)	Bandwidth (kHz)	Primary Conductor Resistance (mΩ)	Bidirectional	Package
Preview	MP1800-3	±5	3.3	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1800-5	±5	5	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1801-3	±10	3.3	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1801-5	±10	5	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1802-3	±20	3.3	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1802-5	±20	5	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1803-3	±30	3.3	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1803-5	±30	5	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1804-3	±40	3.3	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1804-5	±40	5	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1805-3	±50	3.3	2.4	-40 to +150	80	0.65	✓	SOIC-8
Preview	MP1805-5	±50	5	2.4	-40 to +150	80	0.65	✓	SOIC-8

Higher Precision, Better Results



AC/DC ISOLATED | LED LIGHTING

Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Topology	Package	Notes
MP4026	85AC	305AC	Ext FET	Flyback	SOT23-6	Primary-side control, active PFC
MP4027	85AC	305AC	Ext FET	Flyback	SOT23-8	Primary-side control, PFC, NTC, and PWM dimming
MP4030A	85AC	305AC	Ext FET	Flyback	SOIC-8	TRIAC dimmable, primary-side control, active PFC (for better trailing-edge dimmer compatibility, use MP4033)
MP4031	85AC	305AC	Ext FET	Flyback	SOIC-8	TRIAC and analog dimmable, deep dimming, primary-side control, active PFC
MP4033	85AC	305AC	Ext FET	Flyback	SOIC-8 MSOP-10 SOIC-14	Enhanced TRIAC dimmable, primary-side control, active PFC
HR1001A	85AC	305AC	Ext FET	LLC Resonant	SOIC-16	Resonant half-bridge, variable frequency, high-power application, auto-restart at over-current for street lighting applications
HR1001B	85AC	305AC	Ext FET	LLC Resonant	SOIC-16	Resonant half-bridge, variable frequency, high-power application, two-level OCP
MP44010	85AC	305AC	Ext FET	PFC Boost, Buck-Boost	SOIC-8 DIP8	Offline PFC, boundary conduction, ultra-low start-up current (15µA)
MP44011	85AC	305AC	Ext FET	PFC Boost, Buck-Boost	SOIC-8	Offline PFC, boundary conduction, harmonic injection function (reduced capacitor value and inductor size compared with MP44010)
MP44014	85AC	305AC	Ext FET	PFC Boost, Buck-Boost	SOIC-8	Controller (BOM to BOM with L6562)

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Topology	Package	Notes
MP4032-1	85AC	265AC	7	Flyback	SOIC8-7A	Integrated 500V MOSFET, TRIAC-dimmable, deep dimming, primary-side control, active PFC
MP4034	85AC	305AC	7	Flyback	SOIC-8 MSOP-10 SOIC-14	Integrated 700V MOSFET, primary-side control, no dimming or PFC

AC/DC NON-ISOLATED | LED LIGHTING

Controllers

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Configuration	Package	Notes
	MP4000	85AC	305AC	Ext FET	Low-Side Buck	SOIC-8	WLED driver controller for low-cost LED lamps, analog and PWM dimming
	MP4001	85AC	305AC	Ext FET	Low-Side Buck	SOIC-8	Offline LED controller, integrated high-voltage LDO, analog and PWM dimming
	MP4054	85AC	305AC	Ext FET	Buck-Boost	SOT23-8	Offline LED controller, active PFC
	MP4054A	85AC	305AC	Ext FET	Buck-Boost	SOT23-8	Offline LED controller, active PFC, NTC, PWM dimming
	MP4056	85AC	305AC	Ext FET	Buck-Boost	SOIC-8 MSOP-10 SOIC-14	TRIAC dimmable, offline LED controller, active PFC
NEW	MP4057	85AC	305AC	Ext FET	Buck-Boost	MSOP-10 SOIC-14	Single-chip solution for smart lighting with integrated CC and CV control
NEW	MP4059	85AC	305AC	Ext FET	Buck-Boost	SOIC-8	Single stage AC/DC LED driver with down to 1% dimming
	MP4060	85AC	305AC	Ext FET	Buck-Boost	MSOP-10 SOIC-14	Improved trailing-edge dimmer performance at high line over MP4056

Regulators

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Configuration	Package	Notes
MP4050A	85AC	265AC	8	Buck	SOIC-8 SOT23-5	Integrated 500V MOSFET, offline driver, enhanced thermal, no PFC or dimming
MP4068	85AC	305AC (recommend low line only)	10	Buck, Buck-Boost	SOIC8-7A SOIC-8 EP	Integrated 700V FET, PFC driver with TRIAC dimming
MP4088	85AC (recommend high line only)	305AC	8.5	Buck, Buck-Boost	SOIC8-7A SOIC-8 EP TSOT23-5	Integrated 700V 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
Sampling	MP2341	4.2	24	Buck	2	97	1MHz	SOT583	LED driver, force PWM mode, OVP with auto recovery
	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	Hysteretic control, PWM dimming
	MP2481	4.5	36	Buck, Buck-Boost	1.2	95	1.4MHz	MSOP-8	Analog and PWM dimming
	MP24892	6	45	Low-Side Buck	1	95	600kHz	TSOT23-5	Hysteretic control, analog and PWM dimming, lower-cost version of MP2489
	MP24893	6	36	Low-Side Buck	1	95	600kHz	QFN-6 (3x3) TSOT23-5	Hysteretic control, analog and PWM dimming, lower-cost version of MP2489
	MP2483	4.5	55	Buck, Buck-Boost	2.5	95	1.35MHz	QFN-10 (3x3) SOIC-14	Analog and PWM dimming, consumer grade
	MP24183	4.5	55	Buck, Buck-Boost	1	95	1.35MHz	QFN-10 (3x3)	Analog and PWM dimming
	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
NEW	MP24833A	4.5	55	Buck, Buck-Boost	3	90	210kHz	SOIC-8E	Analog and PWM dimming
	MP24895	6	36	Low-Side Buck	1	95	600kHz	TSOT23-5 QFN6	Hysteretic control, analog and PWM dimming
	MP24895A	6	36	Low-Side Buck				MSOP-8 EP	Analog and PWM dimming
	MP4688	4.5	80	Buck	1	95	2MHz	SOIC-8E	Hysteretic control, PWM dimming
	MP4689	4.5	95	Buck	1	95	1MHz	SOIC-8E	Hysteretic control, PWM dimming (NRFND - replace with MP4689A)
	MP4689A	4.5	100	Buck	1	95	1MHz	SOIC-8E	Hysteretic control, improved PWM dimming
NEW	MP2410	4.2	24	Buck	2	97	1MHz	TSOT23-6 TSOT23-8	Synchronous buck, analog dimming only
NEW	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	Hysteretic control

Controllers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Power (W)	Configuration	Max Efficiency (%)	Package	Notes
MP4012	8	55	Ext FET	Buck, Boost Buck-Boost, Sepic		SOIC-16	HV9912 pin comp, for backlight (i.e.: V_{OUT} > 200V) and lighting (high-output power)
MP24894	6	60	Ext FET	3	95	TSOT6	Buck controller, hysteresis control

PHOTO FLASH | LED LIGHTING

Part Number	Charge Type	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{SW} (Max) (V)	I_{OUT} (Max) (A)	I_{OUT} (Min) (A)	Package	Notes
MP3331	WLED	2.7	5.5	6	2		WLCSP (1.7x1.7)	Single-channel boost WLED driver for smartphone camera flash
MP3361	Xenon Flash	2.5	6	60	1.2	1.0 (Typ)	MSOP-10	Highly integrated xenon photo flash charger and IGBT driver
MP3360	Xenon Flash	2.5	6	60	1.7	0.4	QFN-10 (2x2)	Programmable peak current, highly integrated xenon photo flash charger and IGBT driver for mobile phones
MP3356	Xenon Flash	2.8	6	50	1.7	1.5	QFN-10 (2x2)	Highly integrated xenon photo flash charger and IGBT driver for DSC
MP3351	Xenon Flash	3	6	60	2	0.3	QFN-16 (3x3)	Integrated photo flash charger with IGBT driver
MP3352	Xenon Flash	3	6	60	2.5	0.3	QFN-16 (3x3)	Integrated photo flash charger with IGBT driver and quench

SPECIAL

Part Number	Control Method	Package	Notes
HF81	X-Cap Bleeder	SOIC-8	Discharge the X-capacitor when AC voltage is unplugged
MP4690	Shunt	SOD123	Smart bypass for LED protection, 6V threshold voltage protects one LED

SINGLE-CELL SWITCHING CHARGERS | BATTERY MANAGEMENT

Li-Ion, Li-Polymer

	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	Package	Notes
	MP2611	3.95	6	7.5	2	4.2		1500	Standalone	QFN-14 (3x4)	Dual inputs, NTC battery temp monitor
	MP2626	4.2	6.5	20	2	4.2 / 4.35	1.5	1200 / 600	Standalone	QFN-24 (4x4)	NTC battery temp monitor
	MP2624	3.6	7	20	4.5	3.48 to 4.425	1.3	1700	I²C	QFN-22 (3x4)	NVDC power-path mgmt, JEITA battery 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	QFN-22 (3x4)	NVDC power-path mgmt, JEITA battery NTC monitor, BC1.2 detection, shipping mode, OTG OCP latch function
Sampling	MP2695	3.28	10	16	3.6	3.6 to 4.45		600/1200	I²C	QFN-21 (3x3)	JEITA battery NTC monitor, OTP programmable charging parameters, battery current monitor
	MP2625B	4	10	20	2	4.2		1600	Standalone	QFN-20 (3x4)	NVDC power-path mgmt, NTC battery temp monitor
	MP2617A	4	10	20	3	4.35		1600	Standalone	QFN-20 (3x4)	NVDC power-path mgmt, NTC battery temp monitor
	MP2617B	4	10	20	3	4.2		1600	Standalone	QFN-20 (3x4)	NVDC power-path mgmt, NTC battery temp monitor
	MP2617H	4	14	20	3	4.2		1600	Standalone	QFN-20 (3x4)	NVDC power-path mgmt, NTC battery temp monitor
NEW	MP2639B	3.6	16	20	5	4.35	3	1200	Standalone	QFN-26 (4x4)	JEITA battery NTC monitor, LED fuel gauge, battery current monitor
	MP2615B	3.95	18	23	2	3.93 / 4.03		600	Standalone	QFN-16 (3x3)	NTC battery temp monitor

PROTECTION

Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Type	Package	Notes
MP2671	3	5.55	30	Battery Protection	QFN-10 (3x3)	Li-ion battery charger, protection circuit
MP2670	2.7	5.65	30	Battery Protection	QFN-12 (3x4)	Li-ion battery charger, protection circuit

LINEAR CHARGERS | BATTERY MANAGEMENT

Li-Ion, Li-Polymer

	Part Number	Operating V_{IN} (Min) (V)	Operating V_{IN} (Max) (V)	Absolute V_{IN} (Max) (V)	Charge Current (mA)	Battery Charge Voltage (V)	Control Interface	Package	Notes
	MP2603	2.8	5.25	25	50 to 150	4.2	Standalone	TSOT23-5	Charging indication
	MP2602	3.2	5.8	28	85 to 1000	4.2	Standalone	QFN-10 (3x3)	NTC battery temp monitor, adapter present and charging indication, programmable termination current
	MP2608	4.25	5.8	28	100 to 1000	4.2	Standalone	QFN-10 (3x3)	Dual inputs, fault and charging indication, programmable termination current
	MP2660	4	5.85	13	8 to 500	3.6 to 4.5	I²C	WLCSP-9 (1.55x1.55)	Power-path mgmt, ship. mode, int battery pack protection, OTP prog charging parameters, NTC battery temp monitor
NEW	MP2661	4	5.85	13	8 to 500	3.6 to 4.565	I²C	WLCSP-9 (1.55x1.55)	Power-path mgmt, ship. mode, int battery pack protection, OTP prog charging parameters, NTC battery temp monitor
Sampling	MP2662	3.83	5.85	21	8 to 456	3.6 to 4.5	I²C	WLCSP-9 (1.75x1.75)	Power-path mgmt, ship. mode, int battery pack protection, 1µA batt. leakage current, low $R_{DS(ON)}$, OTP prog charging parameters, NTC battery temp monitor
NEW	MP2663	4	5.85	13	8 to 500	3.6 to 4.5	I²C	WLCSP-9 (1.55x1.55)	Power-path mgmt, ship. mode, int battery pack protection, OTP prog charging parameters, NTC battery temp monitor
Sampling	MP2664	4	5.85	13	8 to 500	3.6 to 4.5	I²C	QFN-10 (2x2)	Power-path mgmt, ship. mode, int battery pack protection, OTP prog charging parameters, NTC battery temp monitor
	MPQ5480	4	6	7	7.8 to 127	4.1	Standalone	WLCSP-16 (1.7x1.7)	Int charger with 5V / 100mA DC/DC, sync regulator
	MP2607	4.51	6.27	13	300 to 1500	4.2	Standalone	QFN-14 (3x4)	Power-path mgmt, dual-mode USB & AC adj current limits, low $R_{DS(ON)s}$, adapter present & char. ind., NTC battery temp monitor
	MP26121	2.5	6.7	28	200 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging ind., NTC battery temp monitor
	MP2631	2.5	6.7	28	200 to 1000	4.2	Standalone	QFN-10 (3x3)	Int 10mA LDO, adapter present and charging indication
	MP2604	3.2	6.7	28	85 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging indication, programmable termination current, NTC battery temp monitor
	MP2605	2.5	6.7	28	200 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging indication, NTC battery temp monitor
	MP26053	2.5	6.7	28	200 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging indication, NTC battery temp monitor
	MP26058	2.8	6.7	28	200 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging indication, programmable termination current, NTC battery temp monitor
	MP26028	3.2	6.8	20	85 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging indication, programmable termination current
	MP26056	2.5	6.8	28	200 to 1000	4.2	Standalone	QFN-10 (3x3)	Dual-mode USB and AC adapter current limits, adapter present and charging indication, prog termination current
	MP26057	3.5	6.8	28	200 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging indication, programmable termination current, NTC battery temp monitor
	MP2606	3.2	6.8	28	85 to 1000	4.2	Standalone	QFN-10 (3x3)	Adapter present and charging indication, programmable termination current, NTC battery temp monitor
	MP26060	2.8	6.8	24	85 to 1000	4.15	Standalone	QFN-10 (3x3)	Adapter present and charging indication, programmable termination current
NEW	MP26029	3.9	6.25 or 10.6	13	30 to 1000	3.6 to 4.4	Standalone	SOT563 SOIC-8E QFN-10 (3x3)	NTC battery temp monitor, OTP programmable charging parameters, die temperature regulation, P2P with MP2602

POWER BANK MANAGEMENT | BATTERY MANAGEMENT

Li-Ion, Li-Polymer

	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 Voltage (V)	OTG Current (Max) (A)	F_{SW} (kHz)	Control Interface	Package	Notes
NEW	MP2639A	4.05	5.75	16	2.5	8.4	4.5 to 5.5	5	1300	Standalone	QFN-26 (4x4)	2 series cell boost charger, JEITA battery NTC monitor, LED fuel gauge, batt. current monitor, int cell balancing
NEW	MP2639C	4.05	5.75	16	2.5	8.4	4.5 to 5.5	5	1300	Standalone	QFN-26 (4x4)	2 series cell boost charger, JEITA batt. NTC mon., LED fuel gauge, batt. curr.mon., enhanced cell balancing, audible noise reduction
	MP2632B	3.6	5.8	20	3	4.2 / 4.35 / 4.45	5.1	3	600	Standalone	QFN-26 (4x4)	Power-path mgmt, BC1.2 detection, LED fuel gauge, NTC battery temp monitor, all-in-one autononmous mode
	MP2690	3.6	5.8	14	2.5	4.2 / 4.35 / 4.45	5.1	2.1	600	Standalone	QFN-26 (4x4)	Power-path mgmt, BC1.2 detection, LED fuel gauge, NTC battery temp monitor, all-in-one autonomous mode
NEW	MP2698	3.6	6	24	5	3.1 to 4.675	5	3.6	550	I²C	QFN-28 (4x4)	JEITA battery NTC monitor, power-path mgmt, int ADC, BC1.2 detection, LED fuel gauge
	MP2635B	4.2	6.5	20	2	4.2 / 4.35	4.2 to 5.6	1.5	1200 / 600	Standalone	QFN-24 (4x4)	Power-path mgmt, NTC battery temp monitor, adj boost output voltage
	MP2636	4.5	6.5	20	3	4.2 / 4.3 / 4.35	4.2 to 6	3	600	Standalone	QFN-30 (4x4)	Power-path mgmt, NTC battery temp monitor, adj boost output voltage
	MP2637	4.5	6.5	20	2.5	4.2 / 4.35	4.2 to 5.6	2.4	600	Standalone	QFN-24 (4x4)	Power-path mgmt, NTC battery temp monitor, adj boost output voltage
	MP2637A	4.5	6.5	20	2.5	4.055 / 4.2	4.2 to 5.6	2.4	620	Standalone	QFN-24 (4x4)	Power-path mgmt, NTC battery temp monitor, adj boost output voltage
	MP2633A	4.2	6.5	20	1.5	4.2 / 3.6	4.2 to 6	1.5	1200 / 600	Standalone	QFN-24 (4x4)	Power-path management NTC battery temp monitor, adj boost output voltage
Sampling	MP2696	3.28	10	16	3.6	3.6 to 4.45	5.05 to 5.225	3.6	600/ 1200	I²C	QFN-21 (3x3)	JEITA batt. NTC monitor, power-path mgmt, OTP prog. charging par., batt. current monitor, prog boost output voltage
NEW	MP2638	3.27	14	24	5	3.1 to 4.675	5 / 9 / 12	3	550	I²C	QFN-28 (4x4)	JEITA battery NTC monitor, power-path mgmt, int ADC, BC1.2 detection, QC2.0 output detection, LED fuel gauge
NEW	MP2638A	3.27	14	24	5	3.1 to 4.675	5 / 9 / 12	3.6	550	I²C	QFN-28 (4x4)	JEITA battery NTC monitor, power-path mgmt, int ADC, BC1.2 detection, QC2.0 output detection, LED fuel gauge
NEW	MP2669	3.6	14	24	5	3.1 to 4.675	5 to 12	3	550	I²C	QFN-28 (4x4)	JEITA battery NTC monitor, power-path mgmt, int ADC, BC1.2 detection, QC3.0 output voltage, LED fuel gauge
NEW	MP2673	3.6	14	24	5	3.1 to 4.675	5 to 12	3.6	550	I²C	QFN-28 (4x4)	JEITA battery NTC monitor, power-path mgmt, BC1.2 detection, QC3.0 output voltage, LED fuel gauge
NEW	MP2639B	3.6	16	20	5	4.35	5 to 15	3	1200	Standalone	QFN-26 (4x4)	JEITA battery NTC monitor, LED fuel gauge, batt. current monitor, adj boost output voltage

Li-Ion, Li-Polymer, LiFePO4

	MP2635A	4.2	6.5	20	2	4.2 / 3.6	4.2 to 5.6	1.5	1200 / 600	Standalone	QFN-24 (4x4)	Power-path management, NTC battery temp monitor, adj boost output voltage

MULTI-CELL SWITCHING CHARGERS | BATTERY MANAGEMENT

Li-Ion, Li-Polymer

	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)	# of Series Cells	Control Interface	Topology	Package	Notes
NEW	MP2639A	4.05	5.5	20	2.5	8.4	1300	2	Standalone	Sync Boost	QFN-26 (4x4)	JEITA battery NTC monitor, LED fuel gauge, batt current monitor, int cell-balancing, USB OTG
NEW	MP2639C	4.05	5.75	16	2.5	8.4	4.5 to 5.5	5	Standalone	Sync Boost	QFN-26 (4x4)	2 series cell boost charger, JEITA batt. NTC mon., LED fuel gauge, batt. current mon., enhanced cell balancing, audible noise reduction
Sampling	MP2672	3.75	5.75	14	2	8.3 to 9.0	600 / 1200	2	I²C / Standalone	Sync Boost	QFN-18 (2x3)	NVDC power-path mgmt, JEITA batt NTC monitor, OTP prog. charging parameters, int cell-balancing
	MP2615	3.95	18	23	2	4.1 / 4.2 / 8.2 / 8.4	600	1 to 2	Standalone	Sync Buck	QFN-16 (3x3)	NTC battery temp monitor
	MP2615A	3.95	18	23	2	4.2 / 4.35 / 8.4 / 8.7	600	1 to 2	Standalone	Sync Buck	QFN-16 (3x3)	NTC battery temp monitor
	MP2619	3.4	24	26	2	8.4 / 12.6	600	2 to 3	Standalone	Non-Sync Buck	QFN-28 (4x5)	Power-path management, NTC attery temp monitor
NEW	MP26124	3.45	24	28	2	16.8	600	4	Standalone	Non-Sync Buck	QFN-16 (4x4)	NTC battery temp monitor
	MP2610	3.4	24	26	2	4.2 / 8.4	1100	1 to 2	Standalone	Non-Sync Buck	QFN-16 (4x4)	NTC battery temp monitor
	MP26101	3.4	24	26	2	4.1 / 8.2	1100	1 to 2	Standalone	Non-Sync Buck	QFN-16 (4x4)	NTC battery temp monitor
	MP26123	3.4	24	26	2	8.4 / 12.6	600	2 to 3	Standalone	Non-Sync Buck	QFN-16 (4x4)	Power-path management, NTC battery temp monitor
Sampling	MP2659	4.2	36	40	3	10.8 to 26.4	350 / 700	3 to 6	Standalone	Sync Buck	QFN-19 (3x3)	Fully integrated power FETs, power-path mgmt, no external sense resistor, NTC battery temp monitor

LiFePO4

	MP2623	3.5	24	26	2	3.6 / 7.2	1100	1 to 2	Standalone	Non-Sync Buck	QFN-16 (4x4)	NTC battery temp monitor

CRADLE CHARGERS

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	20		CV/CC Controller	Prog	SOT23-8	CC/CV controller with 1.223V voltage reference
MP2681	4.9	30	36	4	✔	CV/CC Controller	4.15	SOIC-16	Full protection and indication, one-chip solution for power tool applications
MP2681B	4.9	30	36	5	✔	CV/CC Controller	4.15	SOIC-16	Full protection and indication, one-chip solution for power tool applications

WHITE LED DRIVERS | DISPLAY BACKLIGHTING POWER

Inductors & Charge Pumps

	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
	MP3412	0.8	4.4	5	1	1.1	0.2	1000	✔	Boost	TSOT23-6	High efficiency
	MP9361	2.8	5	5	1			1350	✔	Reg.Charge Pump	TSOT23-6	Internal SS
	MPQ9361	2.8	5	5	1			1350		Reg.Charge Pump	TSOT23-6	Internal SS, industrial grade
	MP1519	2.5	5.5	10	4			1300		Charge Pump	QFN-16 (3x3)	Common cathode
	MP1529	2.7	5.5	25	3	1.2		1200	✔	Boost	QFN-16 (4x4)	Integrated flash
	MP3021	2.7	5.5	4	4			1250		Charge Pump	QFN-16 (3x3)	Single-wire brightness control, common anode
	MP3307	2.7	5.5	35	1	1.6 (Min)	0.2	300 to 2200 Prog	✔	Boost	TSOT23-8	Up to 2.2MHz for automotive infotainment LCD
	MP3309	2.7	5.5	35	1	1.5	0.2	300 to 2200 Prog	✔	Boost	QFN-10 (1.4x1.8)	Synchronous boost, 35V max output
	MP3309A	2.7	5.5	35	1	1.5	0.2	300 to 2200 Prog	✔	Boost	QFN-10 (3x3)	Synchronous boostt
	MP3309C	2.7	5.5	35	1	1.5	0.2	300 to 2200 Prog	✔	Boost	QFN-10 (1.4x1.8)	Synchronous boost, I²C interface
NEW	MP3309L	2.7	5.5	24	1	1.6	0.2	300 to 2200 Prog	✔	Boost	QFN-10 (1.4x1.8)	Synchronous boost, 24V max output
	MP3312	2.7	5.5	36	2	1.8	0.24	1200	✔	Boost	WLCSP-9 (1.3x1.3)	
NEW	MP3313	2.7	5.5	38	3	1.5		250/500 /1000	✔	Boost	WLCSP-12	Linear/exponential dim., analog dim., 100mA LED current in flash mode, I²C
NEW	MP3318	2.7	5.5	38	3	1.5		250/500 /1000	✔	Boost	WLCSP-12	Linear/exponential dimming, 50mA LED current in flash mode, I²C
	MP1518	2.5	6	25	1	0.35	0.104	1300		Boost	QFN-8 (2x2) TSOT23-6	
	MP3202	2.5	6	25	1	1.3	0.104	1300	✔	Boost	QFN-8 (2x2) TSOT23-5	UVLO, low EMI, thermal shutdown, 25V max output
	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 OV pin
	MP3301	2.5	6	36	1	1		1300	✔	Boost	TSOT23-5	Up to 10-series LED

CONTINUE NEXT PAGE >

WHITE LED DRIVERS | DISPLAY BACKLIGHTING POWER

Inductors & Charge Pumps

	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
	MP3302	2.5	6	36	1	1.3	0.2	1300	✓	Boost	QFN-8 (2x3) TSOT23-5	UVLO, low EMI, thermal shutdown, 36V max output
	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	1.3	0.2	2200	✓	Boost	QFN-14 (3x4)	Supporting CABC dimming
	MP3304A	3	6	36	1	1.33	0.2	2200	✓	Boost	QFN-8 (2x3)	High efficiency, true PWM dimming
	MP3304B	3	6	24	1	1.33	0.2	2200	✓	Boost	QFN-8 (2x3)	High efficiency, true PWM dimming
	MP3304C	3	6	18	1	1.33	0.2	2200	✓	Boost	QFN-8 (2x3)	High efficiency, true PWM dimming
	MP3306	3	12	30	1	1.8	0.2	700	✓	Boost	QFN-12 (2x2)	Synchronous boost, integrated disconnect FET
	MP3378	5	24	55	4			300 to 500	✓	Boost	SOIC-28 TSSOP28 EP	Integrated boost controller, DC/DC buck converter
	MP1517	2.6	25	25	1	4	0.7	1100	✓	Boost	QFN-16 (4x4)	UVLO, external comp
	MP3310	4.5	25	50	1	1.3	0.5	1200 Prog	✓	Boost	QFN-10 (3x3)	Wide 4.5V to 25V input range
	MP3366	3	25	50	6	2.5	0.5	600	✓	Boost	WLCSP-18 (1.3x2.5)	CSP package, smart dimming, tablet PC
	MP3384L	3	25	50	4	1.3	0.6	1250 or 625	✓	Boost	QFN-16 (3x3)	3V min input
	MPQ3386	4.5	25	50	6	2.5	0.6	1250	✓	Boost	QFN-24 (4x4)	6-string white LED driver, industrial and AECQ-Grade
	MP3387L	3	25	50	6	2.5	0.6	500 to 1250	✓	Boost	TQFN-24 (4x4)	6-channel, 50V_{OUT}, boost, smart dimming
	MP3388S	4.5	25	50	8	2	0.6	625 or 1250	✓	Boost	QFN-24 (4x4) SOIC-28	PWM/DC input burst PWM dimming
NEW	MP3387A	3	26	50	6	2.5		500 to 1250	✓	Boost	TQFN-24 (4x4)	6-string, max 80mA/string, combined analog and PWM dimming
	MP4013B	8	26	Ext FET	1	Ext FET	0.6	100 to 600	✓	Boost	SOIC-16	More features, better protection, replacing MP4012 and MP4013 in new designs
	MP3394S	5	28	55	4	Ext FET	0.3	150 to 500	✓	Boost	TSSOP16 EP SOIC-16	Replacing MP3394
NEW	MP3398D	5	28	55	4	Ext FET		100 to 500	✓	Boost	SOIC-16 SOIC-20	4-string, max 350mA/string, analog and PWM dimming
	MP3389	5	28	Ext FET	12	Ext FET	0.6	100 to 500	✓	Boost	TSSOP28 EP SOIC-28	External MOSFET, PWM or DC input burst, PWM dimming
	MP3398A	5	28	Ext FET	4	Ext FET	0.6	100 to 500	✓	Boost	TSSOP16 EP SOIC-16 SOIC-20	Inductor short protection, separate ADIM pin
	MP3398L	4.5	28	Ext FET	4	Ext FET	0.6	100 to 500	✓	Boost	SOIC-16	Lower V_{IN} (min) of MP3398A

WHITE LED DRIVERS | DISPLAY BACKLIGHTING POWER

Inductors & Charge Pumps

	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
NEW	MP3376	3	30	36	8	2.5		350 to 2400	✓	Boost	QFN-24 (4x4)	8-string, max 50 mA/string, I²C interface, 36V max V_{OUT}
NEW	MP3376A	3	30	37.5	8	2.5		350 to 2400	✓	Boost	QFN-24 (4x4)	8-string, max 50 mA/string, I²Cinterface, 37.5V max V_{OUT}
	MP3385	4.5	33	Ext FET	4	Ext FET	0.6	100 to 900	✓	Boost	QFN-20 (4x4)	I²C digital interface, ABS 80V LED feedback voltage rating, max 300mA/channel
	MP3391	9	35	Ext FET	8	Ext FET	0.45	150 to 500	✓	Boost	SOIC-28 TSSOP28 EP	8-channel, 80mA/channel for 18-24" LCD panel/TV
	MP1528	2.7	36	36	1	0.95	0.4	Variable	✓	Boost	MSOP-8 QFN-6 (3x3) QFN-8 (2x3)	Drives up to 9-series white LED drivers
	MP3373	9	40	Ext FET	8	Ext FET	0.2	100 to 1000	✓	Boost	SOIC-28 TSSOP28	Phase-shift inductor-short protection, cost effective, replacing MP3393 in new designs
	MP4601	4.5	75	75	1	2.5	0.2	200 to 2000	✓	Buck-Boost	TSSOP16 EP SOIC-16	Novel power-leverage technology, regulates LED string up to 350V
	MP4653	Offline	Offline	Ext FET	1	Ext FET	0.2	20 to 250	✓	LLC	SOIC-20	LIPS CC/CV mode, low BOM cost, high efficiency
	MP4655	Offline	Offline	Ext FET	1	Ext FET	0.2	40 to 130	✓	LLC	SOIC-28	Single-stage LED driver and system voltage regulator
	MP4700	Offline	Offline	Ext FET	1	Ext FET	0.3	Up to 160	Ext Comp	Buck	SOIC-8E	BCM zero current and valley voltage switching >97% efficiency, low BOM, low-power stress
	MP24830 -C470	Offline	Offline	Ext FET	1	Ext FET	0.2	50 to 365	✓	Buck-Boost	SOIC-14 QFN-14	Power leverage in 2.5 power stage, low BOM cost and high efficiency

LED LIGHTING & ILLUMINATION

Photo Flash Drivers

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (Max) (V)	# of Channels	I_{OUT} (Max) (A)	F_{SW} (MHz)	Type	Package	Notes
MP3214	2.7	5.5		1	0.5	1.35	Charge Pump	QFN-16 (3x3)	Charge pump
MP3331	2.7	5.5		1	2	1 / 2 / 3 / 4	Boost	WLCSP-9 (1.7x1.7)	2A boost, I²C, sync rectification output disconnect
MP3332	2.7	5.5	5	2	3	1 / 2 / 3 / 4	Boost	WLCSP-16 (1.7x1.7)	3A boost, I²C, sync rectification output disconnect

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
MP1740	2.5	5.5	3	90	0.11 @ 1W	62	9-Ball WLCSP-9 (1.5x1.5)	BTL, ultra-small for portable devices and mobile phones
MP7731	9.5	18	30	90	0.10 @ 1W	60	TSSOP20 F	30W amplifier, exposed pad
MPQ7731	9.5	18	30	90	0.10 @ 1W	60	TSSOP20 F	30W amplifier, 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	15W, 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
MP7722	9.5	24	20 (2x)	93	0.06 @ 1W	60	TSSOP20 F	Single-ended audio amplifier, exposed pad
MP7745	9.5	26	20 (2x)	93	0.05 @ 1W	59	TSSOP20 F	Single-ended, fully integrated audio amplifier, P2P with MP7722, exposed pad
MP7742	9.5	28	15 (2x)	90	0.018 @ 1W	60	TSSOP20 F	Single-ended, fully integrated audio amplifier, P2P with MP7722, exposed pad
MP7748S	9.5	36	30 (2x)	94	0.02 @ 1W	59	TSSOP28 EP	2 x 30W SE or 1 x 60W BTL audio amplifier
MP7751	5	26	20 (2x)	92	0.06 @ 1W	60	TSSOP28 EP	5 - 26VDD, 2 x 20W BTL audio amplifier
MP7752	5	18	15 (2x)	90	0.06 @ 1W	60	TSSOP28 EP	5 - 18VDD, 2 x 15W filterless BTL audio amplifer
MP7770	9.5	36	45 (2x)	95	0.03 @1W	60	TSSOP28 F	2 x 45W SE or 1 x 90W BTL audio amplifier, 8.5A peak, exposed pad

BRUSHED DC SOLENOID DRIVERS | MOTOR DRIVERS

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	Control Interface	Package	Notes
	MP6513L	2.5	5.5	2	0.6	PWM	TSOT23-6	H-bridge
NEW	MP6514	2.5	14	2	0.6	PWM	UTQFN-8 (2x2)	H-bridge with separate HS/LS control
	MP6507	2.7	15	4	0.7	PWM	TSSOP16 EP QFN-16 (3x3) QFN-16 (4x4)	Bipolar stepper
	MP6508	2.7	18	4	1.2	PWM	TSSOP16 EP QFN-16 (4x4)	Bipolar stepper
	MP6513	2.5	21	2	0.8	PWM	TSOT23-6	H-bridge
	MP8044	7.5	22	2	5	PWM	TSSOP20 F	Full-bridge driver
	MP8042	7.5	24	2	5	PWM	TSSOP20 E	Full-bridge driver
	MP8040	7.5	24	1	9	PWM	SOIC-8 EP	Half-bridge driver
	MP8049S	5	26	4	5.5	PWM	QFN-40 (5x5)	Dual full-bridge driver
NEW	MP6519	2.5	28	2	5	PWM	QFN-19 (3x3)	H-bridge current regulator
NEW	MPQ6523	7	28	3	0.9	PWM	QFN-24 (4x4)	Triple half-bridge driver for automotive HVAC
NEW	MPQ6526	7	28	6	0.9	PWM	QFN-24 (4x4) QFN-24 (5x5)	Hex half-bridge driver for automotive HVAC
	MP8046	7.5	28	2	5	PWM	TSSOP20 F	Full-bridge driver
NEW	MP6515	5.4	35	2	2.8	PWM	QFN-20 (3x4) TSSOP16 EP	H-bridge
NEW	MP6516	5.4	35	2	2.8	PWM	TSSOP16 EP	H-bridge with separate HS/LS control

INTEGRATED BLDC

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	# of Half-Bridges	I_{OUT} (Max) (A)	Hall Input	Package	Notes
	MP6505	4.5	16	2	0.4	Yes	QFN-16 (3x3) TSSOP16 EP	Single-phase brushless DC fan driver
	MP6510	4.5	16	2	1.2	Yes	SOIC-8 EP QFN-8 (3x3) QFN-9 (3x3)	Single-phase brushless DC fan driver
NEW	MP6517A	3.3	16	2	2	Yes	TSOT23-6 TSOT23-6-SL	Programmable single-phase, BLDC fan driver with integrated hall
NEW	MP6517	3.3	18	2	1.2	Yes	TSOT23-6 TSOT23-6-SL	Programmable single-phase, BLDC fan driver with integrated hall
	MP6536	5	26	3	5.5	No	QFN-16 (5x5)	3-channel half-bridge driver

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)	Hall Input	Package	Notes
	MP1924A	8	15	100	1	4.5 / 2.6		QFN-10 (4x4) SOIC-8	Half-bridge gate driver
	MP1921A	9	18	100	1	2.5 / 1.5	No	SOIC-8 EP, QFN-8 (3x3) QFN-9 (3x3), QFN-10 (4x4)	Half-bridge gate driver
	MP6534	5	55	55	3	1 / 0.8	No	QFN-41 (5x5)	3-phase BLDC pre-driver with comm. logic and buck regulator
	MP6535	5	55	55	3	1 / 0.8	Yes	QFN-40 (5x5)	3-phase BLDC pre-driver with buck regulator
	MP6528	5	60		2	1 / 0.8		QFN-28 (4x4)	H-bridge pre-driver
	MP6530	5	60	60	3	1 / 0.8	No	QFN-28 (4x4) TSSOP28 EP	3-phase BLDC pre-driver
	MP6532	5	60	60	3	1 / 0.8	Yes	QFN-28 (4x4) TSSOP28 EP	3-phase BLDC pre-driver with commutation logic
NEW	MP6537	8	100		3	1 / 0.8	No	QFN-28 (4x5)	3-phase, BLDC pre-driver, PWM, and enable inputs
NEW	MP6538	8	100		3	1 / 0.8	Yes	QFN-28 (4x5)	3-phase, BLDC pre-driver with hall commutation logic
NEW	MP6539	8	100		3	1 / 0.8	No	QFN-28 (4x5) TSSOP28 EP	3-phase, BLDC pre-driver, and HS and LS inputs

STEPPER

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	I_{OUT} (Max) (A)	Step Mode	Control Interface	Package	Notes
	MP6507	2.7	15	0.7	1, ½	Parallel	TSSOP16 EP, QFN-16 (3x3) QFN-16 (4x4), TSSOP16	Bipolar stepper
	MP6508	2.7	18	1.2	1, ½	Parallel	TSSOP16 EP QFN-16 (4x4)	Bipolar stepper
	MP6509	2.7	18	1.2	1, ½	Parallel	TSSOP28 EP	Bipolar stepper, current attenuation
NEW	MP6504	8	32	2	1, ½, ¼, ⅛	Indexer	QFN-28 (4x5)	Bipolar stepper with micro-stepping
NEW	MP6500	4.5	35	2.5	1, ½, ¼, ⅛	Indexer	QFN-24 (5x5) TSSOP28	Bipolar stepper with micro-stepping and internal current sense
	MP6501A	8.5	35	2.5	1, ½, ¼, ⅛	Indexer	TSSOP28 EP	Bipolar stepper with micro-stepping
	MP6518	8.5	35	1.5	1, ½, ¼, ⅛	Indexer	TSSOP28 EP	Bipolar stepper with micro-stepping
NEW	MP6600	4.5	35	1.5	1, ½, ¼, ⅛	Indexer	QFN-24 (4x4)	Bipolar stepper with micro-stepping and internal current sense

MAGALPHA SERIES | POSITION SENSORS

Contactless Angle Sensors

	Part Number	Resolution	Interface	Output	Supply Voltage (V)	Sensing Range	Field Strength Detection	Filter Cutoff Frequency (Hz)	Side-Shaft Mounting Capability	Package	Notes
NEW	MA102	12-Bit	SPI	Digital, UVW	3 - 3.6	30mT - No Upper Limit	✓	390	✓	QFN-16 (3x3)	Motor block commutation
NEW	MA302	12-Bit	SPI	Digital, UVW, ABZ	3 - 3.6	30mT - No Upper Limit	✓	390	✓	QFN-16 (3x3)	Motor position control
NEW	MA310	12-Bit	SPI	Digital, ABZ	3 - 3.6	15mT - No Upper Limit	✓	93	✓	QFN-16 (3x3)	Motor position control at low field
NEW	MA702	12-Bit	SPI, SSI	Digital, PWM, ABZ	3 - 3.6	30mT - No Upper Limit	✓	390	✓	QFN-16 (3x3)	Multi-purpose encoder
NEW	MA704	10-Bit	SPI, SSI	Digital, PWM, ABZ	3 - 3.6	30mT - No Upper Limit	✓	2970	✓	QFN-16 (3x3)	High-dynamic encoder
NEW	MA710	12-Bit	SPI, SSI	Digital, PWM, ABZ	3 - 3.6	15mT - No Upper Limit	✓	93	✓	QFN-16 (3x3)	Low-field encoder
NEW	MA730	14-bit	SPI, SSI	Digital, PWM, ABZ	3 - 3.6	40mT - No Upper Limit	✓	23	✓	QFN-16 (3x3)	High-accuracy encoder
NEW	MA800	8-Bit	SPI, SSI	Digital	3 - 3.6	30mT - No Upper Limit	✓	200		QFN-16 (3x3)	Rotary knob
NEW	MA820	8-Bit	SPI	Digital, ABZ	3 - 3.6	30mT - No Upper Limit	✓	200		QFN-16 (3x3)	Rotary knob
NEW	MA850	8-Bit	SPI	Digital, PWM	3 - 3.6	30mT - No Upper Limit	✓	200		QFN-16 (3x3)	Rotary knob

ANALOG SWITCH | 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

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 op amp
MP8101	1.8	5.5	400	11	80	0.2	1	TSOT23-5	Ultra-low power, 400kHz op amp
MP8103	1.8	5.5	200	14	80	0.1	1	MSOP-8	Dual ultra-low power, 600kHz op amp
MP8104	1.8	5.5	400	11	80	0.2	1	TSOT23-5	Ultra-low power, 400kHz, industry-standard pin out
MP8130	2.7	36	100	10	80	0.1	1	TSOT23-5	Ultra-low power, 200kHz, high-voltage op amp
MP8110	2.5	40	12	0.05	0.5			SOIC-8 MSOP-8	High-side current sense

VOLTAGE REFERENCE

Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	V_{OUT} (V)	Initial Accuracy (%)	Operating Current (mA)	Z_{OUT} (Ω)	Package	Notes
MP8201	1.2	12	1.2 to 10	0.5	60µA to 20mA	1	SOT23	Precision adjustable, shunt voltage regulator, 1.0V shunt reference
MP8200	1	12	1	1	100µA to 10mA	0.5	SOT23	1.0V precision shunt reference

ELECTRONIC FUSES (INTEGRATED HOT-SWAP SWITCHES)

Active-High Enable Logic

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Cont Current (Max) (A)	Short-Circuit Current (Max) (A)	Fault Flag	Output Discharge	Package	Notes
Sampling	MP5016-L	2.7	15	0.7 to 5			Yes	QFN-10 (1.5x2)	Has latch-off OCP, over-voltage clamp and reverse blocking
	MP5075L	3	5.5	1	7		Yes	SOT563 (1.6x1.6)	OCP, thermal protection, small package
	MP5073	0.5	5.5	2	2		Yes	QFN-12 (2x2)	Programmable current limit, power good, slew rate control
	MP5083	0.5	5.5	2	Prog		Yes	QFN-12 (2x2)	5% current monitoring (from 0.6A to full load), PG, slew rate control
	MP5075	3	5.5	2.4	7		Yes	SOT563 (1.6x1.6)	OCP, thermal protection, small package
	MP5095	0.5	5.5	2.3 (x2)	5		Yes	TSOT23-8	Dual channel, low I_Q, 30mΩ low $R_{DS(ON)}$, reverse-block connection
	MP5090	0.5	5.5	3 / 2	5		Yes	TQFN-8 (1.5x2) CSP (1.05x1.6)	Dual channel, low I_Q, 30mΩ low $R_{DS(ON)}$, reverse-block connection, small package
Sampling	MP5094	5 / 12	16 / 24	4 / 2.95	8		No	TSOT23-8	Dual-channel, over voltage clamp, OCP hiccup
	MP5010B	3	18	4.2	Prog	Thermal Fault = Tri-State	No	QFN-10 (3x3)	1 to 5A, 40mΩ $R_{DS(ON)}$, prog current limit, slew-rate control, 2.58ms soft-start time
	MP5013A	3	18	4.2	Prog	Short-/Over-Current, Under-Voltage, Over-Voltage, Thermal Shutdown	No	TSOT23-8	5V, 1 to 5A, 36mΩ $R_{DS(ON)}$, prog current limit, slew-rate control, 5A / 2.8A trip / hold current
	MP5000A	10	18	4.2	Prog	Thermal Fault = Tri-State	No	QFN-10 (3x3)	Inrush current performance improved version of MP5000S, P2P with NIS5132
	MP5014A	10	13.8	5	Prog	Short-/Over-Current, Under-Voltage, Over-Voltage, Thermal Shutdown	No	TSOT23-8	12V, 1 to 5A, 36mΩ $R_{DS(ON)}$, prog current limit, over-voltage clamp, slew-rate control
	MP5016	2.7	15	5	8	Thermal Fault = Tri-State	Yes	QFN-10 (1.5x2)	Over-voltage clamp, reverse-current blocking, thermal shutdown and auto-retry
	MP5016H	2.7	22	5	8	Short-/Over-Current, Under-Voltage, Over-Voltage, Thermal Shutdown	Yes	QFN-10 (1.5x2)	Over-voltage clamp, reverse-current blocking, thermal shutdown and auto retry
	MP5018	4.5	5.5	5	Prog	Thermal Fault = Tri-State	No	QFN-12 (2x3)	Reverse-current blocking, 1 to 5A, 45mΩ $R_{DS(ON)}$, prog current limit, OTP latch-off
	MP5017	3	5.5	5	Prog		Yes	QFN-12 (2x3)	1 to 5A current limit switch, over-voltage clamp, reverse block, OTP auto-retry
Sampling	MP5036	2.9	14	5	8		Yes	TSOT23-6	0.4 - 5A programmable current limit, fixed 15V over voltage clamp, fast output OVP response
Sampling	MP5036A	2.9	5.5	5	8		Yes	TSOT23-6	0.4 - 5A programmable current limit, fixed 5.75V over voltage clamp, fast output OVP response
	MP5077	0.5	5.5	7	7		Yes	TQFN-12 (2x2)	Programmable current limit, slew-rate control, fast-off protection
	MP5087	0.5	5.5	7	7		Yes	TQFN-12 (2x2)	5% current monitoring (from 1.5A to full load), PG slew rate control, fast-off protection
	MP5087A	0.5	5.5	7	7		Yes	TQFN-12 (2x2)	Programmable current limit, slew rate control, fast-off protection
	MP5086	2.3	5.5	7	7		Yes	TQFN-12 (2x2)	5% current monitoring (from 1.5 to full load), NTC comparator, open-drain OTP indicator
	MP5092	0.5	5.5	7.5 (x2)	7		Yes	TQFN-18 (2x3)	Dual-channel, programmable current limit, slew-rate control, fast-off protection
	MP5021B	4.8	16	10	Prog	Current Limit, Thermal Shutdown and Damaged MOSFET	Yes	QFN-22 (3x5)	12V, 7mΩ $R_{DS(ON)}$ hot-swap protection device with current monitoring
	MP5022A	8	16	15	Prog	Current Limit, Thermal Shutdown and Damaged MOSFET	Yes	QFN-22 (3x5)	12V, 3mΩ $R_{DS(ON)}$ hot-swap protection device, current monitoring and controlled R_{ON} mode
NEW	MP5022C	4.5	16	15	36		No	QFN-22 (3x5)	12V, 3mΩ $R_{DS(ON)}$, hot-swap protection, current monitoring
Sampling	MP5061	4.5	28	15	25	Yes	Yes	QFN-22 (3x5)	Enable blanking time set and 36V input transient before V_{OUT} start-up; with current monitoring

Single-Channel

	Part Number	V_{IN} (Min) (V)	V_{IN} (Max) (V)	Cont Current (Max) (A)	Short-Circuit Current (Max) (A)	Enable Logic	Fault Flag	Output Discharge	Package	Notes
	MP62055	2.7	5.5	0.5	1.1	Active-High	Over-Current, Active-High	No	TSOT23-5	Small package, P2P with TPS2051B
	MP6211	2.7	5.5	1	2.2	Active-High	Over-Current, Active-Low	No	SOIC-8E	P2P with TPS2051B
	MP6212	2.7	5.5	1	2.2	Active-Low	Over-Current, Active-Low	No	SOIC-8E	With 90µA I_Q and 1.5A current limit
	MP62550 MP62551	2.5	5.5	1.5	1.7	Active-Low Active-High	Over-Current, Active-Low	No	TQFN-6 (2x2) TSOT23-6	Precise adj current limited power dist. switch 60mA-1.7A, 88/100mΩ @ 100mA, 1.5µA max shut. current
NEW	MP5032	3.6	14	3	6	Active-High		No	TSOT23-8	QC 3.0 controller with integrated current-limit switch
NEW	MP5034	3.6	14		6	Active-High		No	TSOT23-8	USB charging port controller integrating QC 3.0 protocol
NEW	MP5030C		14	3	6			No	QFN-10 (1.5x2)	USB charging port controller with current limit switch, supporting CDP, DCP, and QC 3.0 modes
Sampling	MP5030D		14	3	6	Active-High		No	QFN-10 (1.5x2)	Supports load detection feature

Dual-Channel

	MP62351	2.7	5.5	0.5 (x2)	0.75	Active-High	Over-Current, Active-Low	Yes	SOIC-8 MSOP-8	Reverse current blocking, UVLO, P2P with LM3526
	MP6231 MP6232	2.7	5.5	0.5 (x2)	1.1	Active-High Active-Low	Over-Current, Active-High	No	SOIC-8 SOIC-8E MSOP-8E	Reverse current blocking, UVLO, P2P with TPS2052B and TPS2042B
	MP62340 MP62341	2.7	5.5	1 (x2)	1.5	Active-Low Active-High	Over-Current, Active-Low	No	MSOP-8E SOIC-8	Reverse current blocking, UVLO, P2P with TPS2066/2
	MP62340-1	2.7	5.5	1 (x2)	1.5	Active-Low	Over-Current, Active-Low	Yes	MSOP-8E SOIC-8	Reverse current blocking, UVLO, P2P with TPS2066/2
	MP6233	2.7	5.5	1.5 (x2)	2.6	Active-High	Over-Current, Active-Low	No	MSOP-8E	Reverse current blocking, UVLO

HIGH-VOLTAGE ANALOG SWITCHES | ULTRASOUND MUX

	Part Number	# of Channels	V_{SIG} (Max) (V)	R_{SWITCH} (Ω)	Output Bleed Resistor	Switch Configuration	Bandwidth (MHz)	Package	Notes
NEW	MP4816A	16	±90	12.5	✓	SPST	80	TQFP-48 (7x7)	16-bit serial shift register control
NEW	MP4816	16	±90	12.5		SPST	80	TQFP-48 (7x7)	16-bit serial shift register control
NEW	MP4832A	32	±90	14	✓	SPST	80	QFN-72 (10x10)	32-bit serial shift register control with bank switching
	MP4832	32	±90	14		SPST	80	QFN-72 (10x10)	32-bit serial shift register control with bank switching

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PART NUMBERING NOMENCLATURE

PART NUMBERING EXAMPLE: MP1234EK–LF–Z

MP		1234	E		K					–LF	–Z
Monolithic Power		**Part Number**	**Temperature Grade (T_A)**		**Package**					**Lead Free**	**Tape & Reel**
MP### MP#### MP##### MPQ#### HF#### NB###	Older Devices		C	0°C to +70°C	C	WLCSP	QM	QFN (6x7)	C C-Spec	–LF	–Z
			D	-40°C to +85°C	D	QFN (2x3)	QN	QFN (7x7)	E Enhanced		
			E	-20°C to +85°C	E	SC70	QP	QFN (7x8)	R Reserve Lead Bend or Top Exposed Pad		
			H	-40°C to +125°C	F	TSSOP w/ Exposed Pad	QQ	QFN (8x8)	S Customer Specific		
			K	-55°C to +125°C	FP	QFP	QV	QFN (3x5)	T Thin Package		
					G	QFN (2x2)	Q W	QFN (4x6)	U Ultra-Thin Package		
					H	MSOP w/ Exposed Pad	QX	QFN (6x10)			
					J	TSOT23 (0.9mm Height)	QY	QFN (5x8)			
					K	MSOP	R	QFN (4x4)			
					L	QFN (3x4)	S	SOIC			
					M	TSSOP	SD	SOD123			
					N	SOIC w/ Exposed Pad	T	SOT23 (1.1mm Height)			
					P	PDIP (300 Mil)	U	QFN (5x5)			
					Q	QFN (3x3)	V	QFN (4x5)			
					QD	QFN (1x1.5)	W	SOIC - WB w/ Exposed Pad			
					QF	QFN (1.2x1.6)	X	Sorted Wafer			
					QG	QFN (1.4x1.8)	XN	Unsorted Wafer			
					QH	QFN (1.5x2)	Y	SOIC-WB (Wide Body)			
					QJ	QFN (5x6)	Z	TO220			
					QK	QFN (6x6)	ZF	TO263			
Parts introduced after July 2011											
MP### MP#### MP##### MPQ#### HF#### NB###	Newer Devices		G	Temperature Internal to Datasheet –40°C to +125°C (T_J) Standard	Same as Above					No LF Indicator	–Z

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