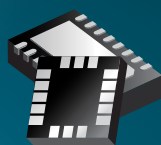


PRODUCT SELECTOR GUIDE

POWER MANAGEMENT SOLUTIONS FOR WORLDWIDE APPLICATIONS



- DC/DC Power Conversion
- AC/DC Power Conversion
- LED Lighting & Illumination
- Modules
- Battery Management
- Class-D Audio
- Display Backlighting Power
- E-Fuse & Load Switches
- Motor Drivers
- Magnetic Sensors
- Precision Analog



Monolithic Power Systems, Inc.



1H 2016

TABLE OF CONTENTS

DC/DC Power Conversion

Controllers & Intelli-Phase™	
CPU Core (Controllers).....	2
CPU Core Power (Intelli-Phase).....	2
Switching Regulators	
Step-Down Converters.....	2
Step-Down Controllers.....	5
Step-Up Charge Pump.....	5
Step-Up Controllers.....	5
Step-Up Converters.....	5
Step-Up Energy Storage (Dying GASP).....	6
Step-Up LNB.....	6
Buck Boost.....	6
Digital Regulators.....	6
LDO.....	7
Supervisory.....	8
MOSFET Drivers.....	8
PMIC & Multiple Outputs.....	8
Flybacks.....	8
PoE PD Controllers.....	8
PoE PD Identity.....	8

AC/DC Power Conversion

EasyPower.....	9
Flyback	
Flyback Secondary-Side Regulation.....	9
Quasi-Resonant Flyback Regulator.....	9
Primary-Side Regulation.....	9
LLC with 600V Half-Bridge Drivers.....	10
PFC+LLC Combo Controller.....	10
PFC.....	10
Power Savers.....	10
Synchronous Rectifiers	
Synchronous Rectifiers Flyback Topology.....	10
Synchronous Rectifiers LLC Topology.....	10

LED Lighting & Illumination

AC/DC Isolated.....	11
AC/DC Non-Isolated.....	11
DC/DC Lighting.....	12
Photo Flash.....	12
Protection.....	12



Modules.....	13
--------------	----

Battery Management

Cigarette Light Adapters.....	14
Cradle Chargers.....	14
Linear Chargers.....	14
Power Bank Management.....	14
Protection.....	14

Class-D Audio

Analog Input.....	15
PWM Input Power Drivers.....	15

Display Backlighting Power

WLED Drivers (Inductors & Charge Pumps).....	16
EL Drivers.....	16

E-Fuse & Load Switches

USB Load Switches	
Single Channel.....	17
Dual Channel.....	17
E-Fuses (Integrated Hot-Swap Switches).....	18

Motor Drivers

Bridge Rectifier IC.....	19
Full-Bridge.....	19
Half-Bridge.....	19
Brushless DC Motor Drivers.....	19
Stepper DC Motor Drivers.....	19

Magnetic Sensors

MagAlpha Series.....	20
----------------------	----

Precision Analog

Analog Switch.....	21
High-Side Current Sense Amplifiers.....	21
Operational Amplifiers.....	21
Voltage Reference.....	21

Part Numbering Nomenclature.....	22
----------------------------------	----

DC/DC POWER CONVERSION															
CONTROLLERS & INTELLI-PHASE (Drive + MOSFET)															
CPU Core (Controllers)															
Part Number	V _{cc} (Min) (V)	V _{cc} (Max) (V)	I _Q (Typ) (mA)	Shutdown (Typ) (mA)	F _{SW} (MHz)	Soft Start	Reg Output Phase	Notes	Package	Industrial	AECQ Grade				
MP2953B	4.75	5.25	18	1	0.2-1	Internal	6	PMBus Interface, VR12.5	QFN40 (5x5)	-	-				
MP2930	4.75	5.25	18	14	0.08-1	External	4	8-Bit DAC Code, VR10, VR11	QFN40 (6x6)	-	-				
MP2932	4.75	5.25	18	14	0.08-1	External	6	8-Bit DAC Code, VR10, VR11	QFN48 (6x6)	-	-				
MP2935	4.5	5.25	8	0.05	0.2-2	Internal	4	VR12.5	QFN40 (6x6)	-	-				
MP2939	3.2	3.4	8	0.05	0.3-3	Internal	4	1+2+1 Phase, IMVP8	QFN48 (6x6)	-	-				
CPU Core Power (Intelli-Phase)															
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (A)	ISW Limit (Typ) (A)	I _{SD} (Typ) (mA)	F _{SW} (MHz)	PWM Logic (V)	Notes	Package	Industrial	AECQ Grade				
MP86901A	4.5	26	12	25	0.03	0.1-2	3.5	-	TQFN13 (3x3)	-	-				
MP86910B	4.5	26.0	20	35	0.03	0.1-2	3.5	-	TQFN21 (3x4)	-	-				
MP86963	4.5	21	20	-	0.551	0.1-1	3.3	-	TQFN (5x5)	-	-				
MP86901C	4.5	26	25	60	0.03	0.1-2	3.5	-	TQFN21 (3x4)	-	-				
MP86885	4.5	14	40	60	0.055	0.1-1	3.3	-	TQFN (4x6)	-	-				
MP86905	4.5	16	50	75	0.08	0.1-2	3.3	-	QFN23 (4x4)	-	-				
MP86883	4.5	14	55	80	0.06	0.1-1	3.3	Enhanced Package	TQFN (6x6)	-	-				
MP86884	4.5	14	55	80	0.06	0.1-1	5	-	TQFN (6x6)	-	-				
MP86884E	4.5	14	55	80	0.06	0.1-1	3.3	Enhanced Package	TQFN (6x6)	-	-				
MP86884-3	4.5	14	55	80	0.06	0.1-1	3.3	-	TQFN (6x6)	-	-				
DC/DC POWER CONVERSION															
SWITCHING REGULATORS															
Step-Down Converters															
Maximum Operating Input Voltage 1.1V ≤ Vin ≤ 7V															
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)	Features					Notes	Package	Industrial	AECQ Grade
							Power Good	External Soft Start	Light-Load Efficiency	External Freq Sync	Constant-On-Time (COT)				
MP2141N	2.3	5.5	1	10	0.6	2.2	✓	-	✓	-	✓	Tiny SOT Package, Output Discharge, 100% Duty Cycle	SOT563	-	-
MP2148	2.3	5.5	1	10	0.6	2.2	✓	-	✓	-	✓	High Switch Frequency, 100% Duty Cycle in Ultra-Small Package	QFN6 (1x1.5)	-	-
MP21148	2.3	5.5	1	500	0.6	2.2	✓	-	✓	-	✓	Forced CCM Mode, 100% Duty Cycle, Low Ripple Across Entire Load Range	QFN6 (1x1.5)	-	-
MP2158A	2.5	6	1	20	0.6	1.5	✓	-	✓	-	✓	1.5% Vfb Accuracy, Good Load Regulation, 100% Duty Cycle	QFN8 (2x1.5)	-	-
MP2159A	2.5	6	1	20	0.6	1.5	✓	-	✓	-	✓	1.5% Vfb Accuracy, Good Load Regulation, 100% Duty Cycle	TSOT23-8	-	-
MP2160	2.7	6	1.2	20	0.6	3.5	✓	-	✓	-	✓	100% Duty Cycle, 3.5MHz Switching Frequency	QFN8 (2x1.5)	-	-
MP2161A	2.5	6	2	20	0.6	1.5	✓	-	✓	-	✓	1.5% Vfb Accuracy, Good Load Regulation, 100% Duty Cycle	TSOT23-8	-	-
MP2162A	2.5	6	2	20	0.6	1.5	✓	-	✓	-	✓	1.5% Vfb Accuracy, Good Load Regulation, 100% Duty Cycle	QFN8 (2x1.5)	-	-
MP2122	2.7	6	2	50	0.608	1	-	-	✓	-	-	Dual Channel, 100% Duty Cycle	TSOT23-8	✓	-
MPQ2166	2.7	6	2	60	0.6	Prog.	✓	✓	✓	-	-	100% Duty Cycle, OCP	QFN18 (2x3)	✓	-
MP2143	2.5	5.5	3	40	0.6	1.2	✓	-	✓	-	✓	Output Discharge, 100% Duty Cycle	TSOT23-8	✓	✓
MP2143H	2.5	5.5	3	-	0.6	2	✓	-	-	-	✓	Forced CCM, Output Discharge, 100% Duty Cycle	QFN10 (2x3)	✓	-
MP2187	2.5	5.5	3	80	0.6	1.2	✓	-	✓	-	✓	With Input Voltage Failure Indicator, Dual Output, 100% Duty Cycle, Output Discharge	QFN16 (2.2x2.6)	-	-
MP2188	2.5	5.5	3	80	0.6	1.2	✓	-	✓	-	✓	Dual Output, 100% Duty Cycle, Output Discharge	QFN16 (2.2x2.6)	-	-
MP2131	2.7	5.5	4	20	0.6	1200	✓	-	✓	-	✓	100% Duty Cycle, Output Discharge	QFN12 (2x2)	-	-
MP2145	2.8	5.5	6	40	0.6	1.2	✓	-	✓	-	✓	Output Discharge, PWM/PFM mode and Dynamic Voltage Scaling	QFN12 (2x3)	-	-
MPQ8616-6	1.5	6	6	1050	0.61	Prog.	✓	✓	-	-	✓	CCM, Non-Latch OVP and OCP	QFN14 (3x4)	✓	-
MPQ8616-12	1.5	6	12	1050	0.61	Prog.	✓	✓	-	-	✓	CCM, Non-Latch OVP and OCP	QFN14 (3x4)	✓	-
MPQ8612-12	1.5	6	12	1100	0.608	Prog.	✓	✓	✓	-	✓	DCM, Non-Latch OVP and OCP	QFN14 (3x4)	✓	-

DC/DC POWER CONVERSION

SWITCHING REGULATORS (CONTINUED)

Step-Down Converters

Maximum Operating Input Voltage ≤ 28V

	Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _O (Typ) (mA)	V _{FB} (Typ) (V)	F _{sw} (MHz)	Features					Notes	Package	Industrial	AECQ Grade
								Power Good	External Soft Start	Light-Load Efficiency	External Freq Sync	Constant-On-Time (COT)				
Sampling Now	MP2313	4.5	24	1	0.2	0.8	2	-	-	✓	-	-	High Fsw, Light Load Mode (AAM Pin)	TSOT23-8	-	-
	MP2388	4.5	21	1	0.2	0.798	2	-	-	✓	-	-	Small Package, Comes with Ultra-Thin Profile Option	QFN8 (1.5x2.5)	-	-
	MP1469	4.7	16	1.5	0.83	0.8	0.5	-	-	✓	-	-	-	TSOT23-6	-	-
	MP1470H	4.5	16	2	0.83	0.804	1	-	-	✓	-	-	Higher Frequency Version of MP1469/MP1470	TSOT23-6	-	-
	MP2234S	4.5	16	2	0.5	0.804	0.8	-	✓	✓	✓	-	Next Gen Version of MP2234	TSOT23-8	-	-
	MP2228	6	16	2	0.55	0.807	0.8	-	✓	✓	-	-	External Light-Load Pin (AAM)	TSOT23-8	-	-
	MP1498	4.5	16	2	0.8	0.807	1.4	-	✓	-	✓	-	1.4MHz High Fsw	TSOT23-8	-	-
	MP1494S	4.5	16	2	0.5	0.8	0.5	-	-	✓	✓	-	AAM (Light-Load Mode)	TSOT23-8	-	-
	MP1474S	4.5	16	2	0.5	0.807	0.5	✓	-	✓	✓	-	PG	TSOT23-8	-	-
	MP2318	4.5	24	2	0.2	0.8	2	-	-	✓	-	-	High Fsw, Light-Load Mode (AAM Pin)	TSOT23-8	-	-
NEW	MP2314S	4.5	24	2	0.12	0.791	0.5	-	-	✓	-	-	Next Gen Version of MP2314, with OVP Function	TSOT23-8	-	-
	MPQ2314	4.5	24	2	0.18	0.791	0.5	-	-	✓	✓	-	AAM Power-Save Mode	TSOT23-8	✓	-
	MP2240	6	16	3	0.75	0.807	0.8	-	✓	✓	-	-	Light-Load Mode (AAM Pin)	TSOT23-8	-	-
	MP2235	4.5	16	3	0.6	0.807	0.8	-	✓	✓	✓	-	-	TSOT23-8	-	-
	MP2233	4.5	16	3	0.6	0.807	1.4	-	✓	-	✓	-	1.4MHz High Fsw	TSOT23-8	-	-
	MP1497	4.5	16	3	0.7	0.807	0.5	-	✓	-	✓	-	Ext. SS	TSOT23-8	-	-
	MP1475	4.5	16	3	0.6	0.807	0.5	✓	-	✓	✓	-	PG	TSOT23-8	-	-
	MP2316	4	19	3	0.04	0.6	Prog.	✓	✓	✓	✓	✓	-	QFN14 (2x3)	-	-
	MP2315	4.5	24	3	0.18	0.791	0.5	-	-	✓	✓	-	AAM (Light-Load Mode)	TSOT23-8	✓	-
	MPQ2315	4.5	24	3	0.18	0.791	0.5	-	-	✓	✓	-	AAM Power Save Mode	TSOT23-8	✓	-
Sampling Now	MPQ8632-4	2.5	18	4	0.86	0.611	Prog.	✓	✓	✓	-	✓	DCM, Non-Latch OVP	QFN16 (3x4)	✓	-
	MPQ8636-4	4.5	18	4	0.86	0.611	Prog.	✓	✓	✓	-	✓	CCM, Non-Latch OVP	QFN (3x4)	✓	-
	MP9151	4.5	20	4	0.7	0.795	Prog.	✓	✓	✓	-	-	PG and Ext. SS	QFN14 (2x3)	-	-
	MP8715	4.5	21	4	0.66	0.805	0.5	✓	✓	-	✓	-	100% Duty Cycle	QFN14 (3x4) SOIC8E	-	-
	MP1499	4.5	16	4	0.6	0.807	0.5	-	✓	✓	✓	-	Ext. SS	QFN10 (2x3)	-	-
	MP2224	4.5	18	4	0.32	0.6	0.5	-	-	✓	✓	-	P2P with MP2225	TSOT23-8	-	-
	MP2225	4.5	18	5	0.32	0.6	0.5	-	-	✓	✓	-	High-Efficiency, 5A peak	TSOT23-8	-	-
	MP8760	4.5	18	6	0.86	0.611	Prog.	✓	✓	✓	-	✓	High Efficiency 1% Reference Accuracy	QFN13 (3x4) QFN16 (3x4)	-	-
	MP8760D	4.5	18	6	0.86	0.611	Prog.	✓	✓	✓	-	✓	Output Discharge	QFN16 (3x4)	-	-
	MPQ8632-6	2.5	18	6	0.86	0.611	Prog.	✓	✓	✓	-	✓	DCM, Non-Latch OVP	QFN16 (3x4)	✓	-
Sampling Now	MP2229	4.5	21	6	0.4	0.6	Prog.	-	✓	✓	✓	-	-	QFN14 (3x3)	-	-
	MP8765	5	24	6	0.16	0.604	0.5	✓	-	✓	-	✓	PWM/PFM Mode Pin and Output Discharge	QFN16 (3x3)	-	-
	MP8756	4.5	26	6	0.117	0.6	700	✓	-	✓	-	✓	Hiccup Mode OCP and UVP	QFN12 (2x3)	-	-
	MP8761	4.5	18	8	0.86	0.611	Prog.	✓	✓	✓	-	✓	High Efficiency	QFN13 (3x4) QFN16 (3x4)	-	-
	MP8759	4.5	26	8	0.117	0.6	700	✓	-	✓	-	✓	Hiccup Mode OCP and UVP	QFN12 (2x3)	-	-
	MPQ8636H-10	4.5	18	10	0.86	0.611	Prog.	✓	✓	-	-	✓	CCM, Non-Latch OVP	QFN16 (3x4)	✓	-
	MPQ8636-10	4.5	18	10	0.86	0.611	Prog.	✓	✓	-	-	✓	CCM, Latch-Off OVP	QFN16 (3x4)	✓	-
	MPQ8636A-10	4.5	18	10	0.86	0.611	Prog.	✓	✓	-	-	✓	CCM, Latch-Off OVP/OCF	QFN16 (3x4)	✓	-
	MPQ8632H-10	2.5	18	10	0.86	0.611	Prog.	✓	✓	✓	-	✓	DCM, Latch-Off OVP	QFN16 (3x4)	✓	-
	MPQ8632-10	2.5	18	10	0.86	0.611	Prog.	✓	✓	✓	-	✓	DCM, Non-Latch OVP	QFN16 (3x4)	✓	-
NEW	MP8762	4.5	18	10	0.86	0.611	Prog.	✓	✓	✓	✓	✓	High Efficiency	QFN13 (3x4) QFN16 (3x4)	-	-
	MP8758H	4.5	22	10	0.19	0.604	500	✓	-	✓	-	✓	Thermal Auto-Retry, Hiccup Mode OCP and UVP, PFM/PWM Mode	QFN21 (3x4)	-	-
	MP8763	4.5	18	12	0.86	0.611	Prog.	✓	✓	✓	-	✓	High Efficiency	QFN13 (3x4) QFN16 (3x4)	-	-
	MP8763D	4.5	18	12	0.86	0.611	Prog.	✓	✓	✓	-	✓	High Efficiency, Output Discharge	QFN16 (3x4)	-	-
	MPQ8632-12	2.5	18	12	0.86	0.611	Prog.	✓	✓	✓	-	✓	DCM, Non-Latch OVP	QFN16 (3x4)	-	-
	MPQ8632-15	2.5	18	15	0.86	0.611	Prog.	✓	✓	✓	-	✓	DCM, Non-Latch OVP	QFN29 (5x4)	✓	-
	MP38876	4.5	28	15	1	0.81	400	✓	✓	-	✓	-	Step-Down Converter with Synchronous Gate Driver, OCP Latch-Off	QFN20 (3x4)	-	-
	MPQ8632-20	2.5	18	20	0.86	0.611	Prog.	✓	✓	✓	-	✓	DCM, Non-Latch OVP	QFN29 (5x4)	✓	-
	MPQ8636-20	4.5	18	20	1	0.611	Prog.	✓	✓	-	-	✓	CCM, Non-Latch OVP	QFN29 (5x4)	✓	-
	MPQ8636H-20	4.5	18	20	1	0.611	Prog.	✓	✓	-	-	✓	CCM, Hiccup OVP	QFN29 (5x4)	✓	-
	MP8620	6	16	25	2	0.8	600	✓	✓	-	✓	-	Phase Inter-Leaving, OCP Latch-Off	QFN36 (6x6)	-	-

DC/DC POWER CONVERSION																
SWITCHING REGULATORS (CONTINUED)																
Step-Down Converters (Continued)																
Maximum Operating Input Voltage <55V																
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _O (Typ) (mA)	V _{FB} (Typ) (V)	F _{SW} (kHz)	Features						Notes	Package	Industrial	AECQ Grade
							Power Good	External Soft Start	Light-Load Efficiency	Synchronous Rectification	External Freq Sync	Constant-On-Time (COT)				
MP4410	4.5	36	0.1	0.02	1	Prog.	-	√	-	√	-	-	Programmable Peak Current Limit	QFN10 (3x3)	-	-
MP4568	4.5	45	0.1	0.02	1	Prog.	-	√	-	√	-	-	Programmable Peak Current Limit	QFN10 (3x3)	√	-
MP4569	4.5	75	0.3	0.02	1	1000	√	√	-	√	-	-	-	QFN10 (3x3) SOIC8E	√	√
MP2420	4.5	75	0.3	0.02	1	Prog.	√	√	-	√	-	-	Watchdog	TSSOP-16	√	√
MPQ2459	4.5	55	0.5	0.73	0.812	480	-	-	-	-	-	-	-	TSOT23-6	√	√
MP4566	4.5	36	0.6	0.035	1	1000	-	-	√	-	-	-	High Light-Load Efficiency	QFN8 (2x3)	-	-
MPQ2451	3.3	36	0.6	0.13	0.794	2000	-	-	√	-	-	-	-	SOT23-6L QFN-6L	√	√
MP2454	3.3	36	0.6	0.06	0.8	2300	√	√	-	-	√	-	-	QFN(3x3)	√	√
MPQ4458	3.8	36	1	0.12	0.8	Prog.	-	-	√	-	-	-	-	TQFN10 (3x3)	-	-
MPQ4558	3.8	55	1	0.14	0.8	Prog.	-	-	√	-	-	-	-	QFN10 (3x3) SOIC8E	√	√
MPQ4459	3.8	36	1.5	0.12	0.8	Prog.	-	-	√	-	-	-	-	TQFN10 (3x3)	√	-
MPQ2490	4.5	36	1.5	0.5	0.805	700	√	√	-	-	-	-	Programmable Output-Current Limit	SOIC8	√	-
MP24971	8	50	1.5	1.2	0.8	100	-	-	-	-	-	-	Programmable Current Limit, Output Line-Drop Compensation, Output Over-Voltage Protection	SOIC8 SOIC8E	-	-
MPQ4561	3.8	55	1.5	0.14	0.795	Prog.	-	√	√	-	-	-	-	QFN10 (3x3)	√	√
MP4425M	4	36	1.5	0.5	0.2	2200	-	-	-	-	√	-	PWM Dimming and OCP/SCP Protection	QFN13 (2.5x3)	√	√
MP9942	4	30	2	0.5	0.792	410	√	-	-	√	√	-	-	TSOT23-8	-	-
MP4420	4	30	2	0.5	0.792	410	√	-	-	√	√	-	-	TSOT23-8	√	√
MP4420H	4	36	2	0.5	0.792	410	√	-	-	√	√	-	-	TSOT23-8	√	√
MP9442	4	36	2	0.5	0.792	600	√	-	-	√	√	-	-	TSOT23-8	-	-
MPQ4560	3.8	55	2	0.14	0.797	Prog.	-	-	√	-	-	-	-	QFN10 (3x3) SOIC8E	√	√
MP2499	4.5	55	2	0.5	0.8	100	-	√	-	-	-	-	Programmable Output Current	SOIC16	-	-
MP2499M	4	36	2.4	0.5	0.792	250	-	-	-	√	√	-	High Duty Cycle, Accurate Current Limit with External Resistor	QFN2.5x3-13	-	-
MPQ4460	3.8	36	2.5	0.12	0.8	Prog.	-	-	√	-	-	-	-	QFN3x3-10	-	-
MPQ4432	3.3	36	2.2	0.01	0.8	Prog.	√	√	√	√	√	-	Selectable Forced CCM and AAM and OCP	QFN3x4-16	√	√
MP2560	4.5	42	2.5	0.12	0.8	Prog.	-	-	√	-	-	-	-	QFN10 (3x3) SOIC8E	-	-
MP2565	4.5	50	2.5	0.12	0.8	Prog.	-	-	√	-	-	-	-	QFN10 (3x3) SOIC8E	-	-
MP2496M	7	36	2.5	1.6	-	Selec.	-	-	-	√	-	-	Comes with Integrated Smart USB Charging Port, Auto Detect, Cable Compensation	QFN26 (4x4)	-	-
MP9943	4	30	3	0.5	0.79	410	√	-	-	√	√	-	Consumer Grade, 36V Max	QFN8 (3x3)	-	-
MP2403	4.6	32	3	1.45	0.8	250	-	√	-	√	-	-	-	SOIC8N	-	-
MP4423	4	36	3	0.5	0.79	410	√	-	-	√	√	-	-	QFN8 (3x3)	√	√
MP4423H	4	36	3	0.5	0.79	410	√	-	-	√	√	-	Industrial Grade	QFN8 (3x3)	√	√
MP2497A	4.5	50	3	1.2	0.8	100	-	-	-	-	-	-	Programmable Output OVP Threshold	SOIC8E	-	-
MP4570	4.5	55	3	0.45	1	Prog.	√	√	√	√	√	-	-	TSSOP-20 EP	√	√
MPQ4462	3.8	36	3.5	0.12	0.792	Prog.	-	-	-	-	-	-	-	QFN10 (3x3) SOIC8E	√	√
MP4473	4.5	36	3.5	0.5	0.815	Prog.	√	√	√	√	-	-	-	QFN20 (3x4)	√	√
MP5402M	7	36	5	1.6	-	Selec.	-	-	-	√	-	-	Comes with Integrated Smart Dual USB Charging Ports, Auto detect, Cable Compensation	QFN26 (4x4)	-	-
MP28490	4.5	30	5	0.9	0.808	420	√	-	-	-	√	-	-	SOIC8E	-	-
MPQ4470A	4.5	36	5	0.5	0.815	Prog.	√	√	√	√	-	-	AEC-Q100 Qualification	QFN20 (3x4)	√	√
MPQ4470	4.5	36	5	0.5	0.815	Prog.	√	√	√	√	-	-	AEC-Q100 Qualification	QFN20 (3x4)	√	√
MP8675	4.5	42	6	0.9	0.808	420	-	-	-	√	√	-	Step-Down Converter with Synchronizable Gate Driver	SOIC8E	-	-
MP38892	4.5	42	6	0.9	0.808	420	-	-	-	√	√	-	Step-Down Converter with Synchronizable Gate Driver	SOIC8E	-	-

DC/DC POWER CONVERSION

SWITCHING REGULATORS (CONTINUED)

Step-Down Controllers

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (A)	I _Q (Typ) (mA)	I _{SD} (Typ) (uA)	V _{FB} (V)	F _{SW} (kHz)	Soft Start	Reg Output Phase	Notes	Package	Industrial	AEC-Q Grade
MP2910	5	12	-	0.6	-	0.8	300	Internal	-	Synchronous Buck PWM DC-DC and Linear Power Controller, Specific Power Good Indicator for Intel [®] , Grantsdale F _{SB} _V _{TT} Power Sequence	SOIC14 SOIC8E	-	-
MP2905	3	28	-	0.6	-	0.6	Adj. 200 to 500	External	-	Ideal for Applications Greater than 15A	MSOP10	-	-
MP9928	4	60	-	0.75	0.5	0.8	Adj. 100 to 1000	External	-	PG, Programmable CCM, AAM, and Pulse-Skipping Mode	TSSOP-20 EP QFN20 (3x4)	-	-
MPQ2908A	4	60	-	0.75	0.5	0.8	Adj. 100 to 1000	External	-	Industrial Grade, PG, Programmable CCM, AAM, and Pulse-Skipping Mode	TSSOP-20 EP QFN20 (3x4)	✓	✓

Step-Up Charge Pump

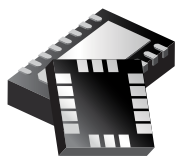
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (Max) (A)	I _Q (mA)	F _{SW} (kHz)	Notes	Package	Industrial	AEC-Q Grade
MP9361	2.8	5	0.11	2	1350	Fixed 5Vout, High-Performance Regulated Charge Pump, Internal Soft Start OCP SCP In-Rush Current Limit	TSOT23-6	✓	-
MP9218	2.8	5	0.11	2	1350	Fixed 5Vout, High-Performance Regulated Charge Pump in a Small QFN2x2 Package P2P with LTC3204	TQFN2x2-6	-	-

Step-Up Controllers

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (A)	F _{SW} (kHz)	I _Q (Typ) (mA)	Power Good	V _{FB} (Typ) (V)	Soft Start	Max Duty Cycle	Notes	Package	Industrial	AEC-Q Grade
MP3908	4.75	10	5	300	0.27	-	0.818	External	0.86	Current Mode Synchronous Gate Drive	MSOP10	-	-
MP3910	5	35	1	Adj. 30 to 400	0.288	-	1.237	External	0.95	Supports Pulse-Skipping Mode at Light Load	MSOP10	-	-
MP3910A	9	14	1	Adj. 30 to 400	0.288	-	1.237	External	0.95	Supports Pulse-Skipping Mode at Light Load	SOIC8E	-	-
MP6002	10	100	3	550	1	-	1.21	Internal	-	Flyback/ Forward DC/DC Converter, 30W, Integrated 150V Power Switch	SOIC8E	-	-
MP6001	10	100	2	550	1	-	1.21	Internal	-	Flyback/Forward DC/DC Converter, 15W, Integrated 150V Power Switch	SOIC8E	-	-
MP6003	10	100	-	550	1	-	1.21	Internal	-	Monolithic Flyback/SEPIC DC/DC Converter	SOIC8E	-	-

Step-Up Converters

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{SW} Limit (Typ) (A)	I _Q (Typ) (mA)	V _{FB} (V)	Switching Freq (kHz)	Sync	Notes	Package	Industrial	AEC-Q Grade
MP3209	2.5	6	0.35	0.64	1.25	1400	-	Internal Comp, Tiny Inductors and Capacitors Can be Used	TSOT23-5 UTQFN8 (2x2)	-	-
MP3418	0.6	4	0.4	0.038	1.21	1200	✓	Output Disconnect	TSOT23-8	-	-
MP3217	2.5	6	0.5	0.46	1.24	670	-	Cycle-by-Cycle Over-Current Protection, UVLO, Thermal Shutdown, P2P with MAX5025-5028	TSOT23-6	-	-
MP1400	2.7	7	0.6	0.2	0	1500	-	Output Adjustable from -0.9V to -6V, Very Small Size	CSP8 (0.8x1.6)	-	-
MP1531	2.7	5.5	0.65	0.8	1.25	250	-	Triple Output Step-Up and Charge Pump for TFT Bias	QFN16 (3x3) TSSOP16	-	-
MP3216	2.5	6	0.75	0.55	1.24	1300	-	Output Disconnect, Output-Short Protection, Cycle-by-Cycle Over-Current Protection	TSOT23-6	-	-
MP3120	0.8	5	1.2	0.47	1.19	1100	✓	Output Disconnect, Has LDO Mode	TSOT23-6	-	-
MP3430	2.7	5.5	1.2	0.3	0.8	1300	-	APD Current Monitoring (1:10 or 1:2 Ratio) with 5% Accuracy and 50ns Response Time, Programmable APD Current Limit and Protection, Internal Comp and, SS	QFN16 (3x3)	-	-
MP3410	1.8	6	1.3	0.36	1.19	550	✓	Output Disconnect	TSOT23-5	-	-
MP3212	2.3	5.5	1.3	0.18	1.23	1000	-	Integrated Input Disconnect Switch, Internal SS, and Internal Comp	QFN10 (3x3)	-	-
MP3414	0.6	4	1.8	0.035	1.21	1000	✓	Output Disconnect	TSOT23-8	-	-
MP1541	2.5	6	1.9	0.64	1.25	1300	-	-	TSOT23-5	-	-
MP1542	2.5	22	2.6	0.7	1.25	700/1300	-	-	MSOP8	-	-
MP3221	2.5	6	2.7	0.27	0.796	1200	-	High-Efficiency, Low I _Q , Input Disconnect	TSOT23-6	-	-
MP3414A	1.8	5.5	3	0.022	0.6	1000	✓	Wider Input Version of MP3414	TSOT23-8	-	-
MP3213	2.5	22	3.5	0.7	1.25	700/1300	-	-	MSOP8E	-	-
MP1530	2.7	5.5	3.6	1.3	1.25	1400	-	Triple Output Charge Pump and LDO for TFT Bias	QFN16 (3x3) TSSOP16	-	-



Simple, Easy Solutions

DC/DC POWER CONVERSION

SWITCHING REGULATORS (CONTINUED)

Step-Up Converters (Continued)

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{SW} Limit (Typ) (A)	I _Q (Typ) (mA)	V _{FB} (V)	Switching Freq (kHz)	Sync	Notes	Package	Industrial	AEC-Q Grade
MPQ1530	2.7	5.5	3.6	1.3	1.25	1400	-	Triple Output Charge Pump and LDO for TFT Bias	QFN16 (3x3)	✓	✓
MP1517	2.6	25	4	0.9	0.7	1100	-	-	QFN16 (4x4)	-	-
MP3425	3.1	22	5	0.65	1.25	Prog. 300 to 2000	-	Programmable UVLO and EN Hysteresis, Consumer Grade	QFN14 (3x4)	✓	✓
MPQ3425	3.1	22	5	0.65	1.25	Prog. 300 to 2000	-	Programmable UVLO and EN Hysteresis	QFN14 (3x4)	✓	✓
MP3422	1.9	5.5	6.5	0.043	0.807	600	✓	Small Size, Output Disconnect	QFN14 (3x4)	-	-
MP3421	1.9	5.5	5.5	0.043	0.807	600	✓	Small Size, Output Disconnect	QFN14 (2x2)	-	-
MP3426	3.2	22	8.5	0.65	1.225	Prog. 300 to 2000	-	Programmable UVLO, Soft Start, UVLO Hysteresis	QFN14 (3x4)	✓	✓
MP3423	1.9	5.5	9	0.043	0.807	600	✓	Small Size, Output Disconnect	QFN14 (2x2)	-	-
MP3428	3	20	22	0.6	1.225	600	✓	External Soft Start, Programmable UVLO and Hysteresis	QFN22 (3x4)	-	-
MP3428A	3	20	22	0.6	1.225	600	✓	Input Disconnect Function, External Soft Start, Programmable UVLO and Hysteresis	QFN22 (3x4)	-	-

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)	Notes	Package	Industrial	AEC-Q Grade
MP6302	4.2	18	32	0.25	2.5	0.25	1	Programmable Storage and Release Voltage, Indicators for Storage and Input Voltage	QFN10 (2x3)	-	-
MP5600	9	18	19.5	1.2	5	3.5	1.227	Multiple-Output Power Supply for TV-LCD Panel	TQFN40 (5x5)	-	-
MP5505A	2.7	7	30	0.5	5	2 (Max)	0.79	Programmable Storage and Release Voltage, Hot-Swap Management Unit for SATA/M.2 PCIe	QFN20 (3x4)	-	-
MP5512	4	18	40	0.96	5	1	0.8	Programmable Storage and Release Voltage, Hot-Swap Management Unit for PCIe	QFN28 (4x5)	-	-

Step-Up LNB

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Standard	I _{OUT} (Max) (A)	22kHz Tone Signal Generated	POK Indicator	I2C	Notes	Package	Industrial	AEC-Q Grade
MP8124	8	14	DiSEqC™ 1.x	0.5	Internal	-	-	Boost Converter with Internal Switch, Low-Noise LDO Output, Line-Drop Compensation, Selectable Vout Compensation, Adjustable Output SS	QFN14 (2x3)	-	-
MP8125	8	14	DiSEqC™ 1.x	0.55	Internal	✓	-	Boost Converter with Internal Switch, Low-Noise LDO Output, Line-Drop Compensation, Settable LDO Current Limit, Selectable Vout Compensation, Adjustable Output SS	TSSOP16 QFN24 (4x4)	-	-
MP8126	8	14	DiSEqC™ 1.x	0.55	Internal	✓	-	Boost Converter with Internal Switch, Low-Noise LDO Output, Line-Drop Compensation, Settable LDO Current Limit, Selectable Vout Compensation, Adjustable Output SS, Direct 22kHz Input	TSSOP16EP QFN24 (4x4)	-	-

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	Notes	Package	Industrial	AEC-Q Grade
MP2155	2	5.5	2.2	0.08	0.496	1000	✓	Power-Save Mode, Load Disconnect	QFN10 (3x3)	-	-
MP28163	2	5.5	2.9	0.07	0.496	1100	✓	Power-Save Mode, Load Disconnect	QFN10 (3x3)	-	-
MP28164	1.2	5.5	4	0.025	0.5	2000	✓	Power-Save Mode, Load Disconnect	QFN11 (2x3)	-	-

DIGITAL REGULATOR

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	Synchronous Rectification	External Freq Sync	Constant-On-Time (COT)	Notes	Package
MP8843	2.6	6	3	0.06	0.6	1000 to 2000	✓	-	✓	✓	-	✓	Prog. Fsw, Synchronous Step-Down Converter with I2C Interface	QFN12 (2x2)
MP8864	4.5	21	4	0.5	0.6	1600	✓	✓	✓	✓	-	-	Synchronous Step-Down Converter with I2C Interface	QFN15 (3x3)
MP8845L	2.8	6	5	18	0.6	2200	-	-	✓	✓	-	-	Synchronous Step-Down Converter with I2C Interface	WLCSP (1.6x2)
MP8846	4.5	8	6	0.5	0.6	1600	✓	✓	✓	✓	-	-	Synchronous Step-Down Converter with I2C Interface	QFN15 (3x3)
MP8865	4.5	21	6	0.5	0.6	1600	✓	✓	✓	✓	-	-	Synchronous Step-Down Converter with I2C Interface	QFN15 (3x3)
MP8867	4.5	17	8	0.56	0.6	1500	✓	✓	✓	✓	-	-	Synchronous Step-Down Converter with I2C Interface	QFN14 (3x4)
MP8868	4.5	17	10	0.56	0.6	1500	✓	✓	✓	✓	-	-	Synchronous Step-Down Converter with I2C Interface	QFN14 (3x4)
MP8869	4.5	17	12	0.42	0.6	500	✓	✓	✓	✓	-	✓	Synchronous Step-Down Converter with I2C Interface	QFN14 (3x4)

DC/DC POWER CONVERSION												
LDO												
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (mA)	IQ (Typ) (μA)	Load Reg (%/mA)	PSRR @ 1kHz (dB)	V _{FB} (V)	Dropout Voltage (mV)	Notes	Package	Industrial	AEC-Q Grade
MP2000	1.35	6	150	65	0.001	50	0.5	250 (IO: 100mA) 300 (IO: 150mA)	Low Voltage Input (1.35V to 6V)	TSOT23-5	-	-
MP20049	2.3	6	150	55	0.001	78	-	50 (IO: 120mA)	Ultra-Low Noise, High PSRR in WLCSP Package, P2P ADP120 & LP5900	WLCSP (0.8x0.8)	-	-
MP8801	2.7	6.5	150	125	0.001	70	1.22	150 (IO: 150mA)	Low Noise, Excellent for RF App, Lower Cost	TSOT23-5	-	-
MP8903	2.7	6.5	150	125	0.001	50	1.22	150 (IO: 150mA)	Low Cost, Small QFN 2mmx2mm Option, Consumer Grade	QFN8 (2x2) TSOT23-5	✓	-
MP20142	2.5	5.5	200 (2x)	150	-	75	-	60 (IO: 100mA) 180 (IO: 300mA)	Dual Outputs, Prog with 2-Pin Control Input	TQFN8 (2x2)	-	-
MP2004	2.7	6.5	200 (2x)	114	0.005	69	-	90 (IO: 100mA) 180 (IO: 200mA)	Dual LDO Adjustable	TSOT23-6	-	-
MP20249	2.3	6	200 (2x)	125	0.001	65	-	60 (IO: 150mA) 75 (IO: 200mA)	Dual-Channel, Ultra-Low Noise, High PSRR in a 6-Ball WLCSP Package	WLCSP (1x1.5)	-	-
MPQ20056-18	2.5	5.5	250	150	0.002	63	0.8	100 (IO: 250mA)	-	QFN8 (2x2)	✓	✓
MPQ20056-33	2.5	5.5	250	150	0.002	63	0.8	100 (IO: 250mA)	-	QFN8 (2x2) TSOT23-5	✓	✓
MP20048	1.7	5.5	250	350	0.0005	35	1.234	60 (IO: 250mA)	Stable Without Any Output Capacitors	TSOT23-5	-	-
MP8802	2.7	6.5	250	125	0.001	70	1.22	230 (IO: 250mA)	Excellent for RF Applications, Lower Cost	TSOT23-5	-	-
MP8902	2.7	6.5	250	125	0.001	70	1.22	230 (IO: 250mA)	Excellent for RF Applications	QFN8 (2x2)	-	-
MP20041	2.5	6	300 (2x)	114	0.003	65	-	75 (IO: 100mA) 220 (IO: 300mA)	Dual Fixed Output, P2P RT9012	QFN8 (2x2)	-	-
MP20044	2.5	6	300 (2x)	114	0.002	65	-	75 (IO: 100mA) 220 (IO: 300mA)	Dual Fixed Output, Good Load Regulation	TQFN8 (2x2)	-	-
MP20043	2.5	5.5	300 (2x)	150	-	75	-	60 (IO: 100mA) 180 (IO: 300mA)	Dual Outputs, Programmable with 2-Pin Control Input	TQFN8 (2x2)	-	-
MP2002	1.35	6.5	500	100	0.001	26	0.5	290 (IO: 500mA)	Low-Voltage Input, Power Good	QFN8 (2x3)	-	-
MP8904	2.5	6.5	500	100	0.001	26	0.496	300 (IO: 500mA)	Power Good Output	QFN8 (2x3)	✓	✓
MP20045	2.5	5.5	1000	110	0.0003	56	1.5	140 (IO: 1000mA)	High Input/Output Current with Fast Response, Fixed and Adjustable +0.252 Output Voltages	QFN8 (3x3) SOIC8E	-	-
MP20051	2.5	5.5	1000	110	0.0003	63	0.8	140 (IO: 1000mA)	-	QFN8 (3x3)	✓	✓
MP20046	2.7	5.5	2000	75	0.0003	70	-	210 (IO: 2000mA)	High Input/Output Current with Fast Response	SOIC8E QFN10 (3x3)	-	-
MP20073	1.3	6	2000	-	N/A	N/A	N/A	N/A	DDR2/3 Termination Regulator	MSOP8E	-	-
MP20075	1.3	3.6	3000	-	N/A	N/A	N/A	N/A	DDR2/3 Termination Regulator, V _{DRV} =3.3V	MSOP8E	-	-
High-Performance Low-Dropout Linear Regulators												
MP2016	4	42	30	12	0.003	50	1.23	700 (IO:30mA)	Ideal for Automotive	QFN8 (2x3) TSOT23-5	-	-
MP2009	2	6	120	50	0.002	78	-	172 (IO:120mA)	No Bypass Capacitor Required	SC70-5	-	-
MP2015A	2.5	24	150	3.3	0.005	41	1.215	700 (IO:150mA)	EN Pin	TSOT23-4 QFN6 (2x2) QFN8 (3x3)	-	-
MP2013A	2.5	40	150	3.2	0.005	41	1.215	620 (IO:150mA)	EN Pin	TSOT23-4 QFN6 (2x2) QFN8 (3x3)	✓	✓
MPQ2013A-C672	2.5	40	100	3.2	0.005	41	1.215	385 (IO:100mA)	-	TO252-4	✓	-
MP2019	3	40	300	10	0.04	45	1.25	420 (IO:300mA)	-	SOIC-8 EP	✓	✓
MP2014	3	40	500	10	0.03	45	-	750 (IO:500mA)	-	TO252-5	-	-
MP20042	2.7	6.5	200 (2X)	114	0.005	73	-	73 (IO:800mA) 145 (IO:150mA)	-	QFN8 (2x2)	-	-
MP2005	1	5.5	800	100	0.0005	65	0.5	70 (IO:800mA)	Ultra-Low Dropout, Fast Transient, 48dB PSRR @1MHz	QFN8 (2x3)	-	-
MP2030	1.1	5	3000	220	0.001	32	0.5	150 (IO:3000mA)	Dual Supply, Fast Transient, Ultra-Low Dropout with Bias Supply, Power Good, Current Limit, and Internal Thermal Protection	QFN10 (3x3) QFN32 (5x5)	-	-
MP2040	1.1	5	3000	3500	0.001	40	0.5	150 (IO:3000mA)	Highest PSRR, Fast Transient Response, 3A, Very Low Dropout Linear Regulator	QFN10 (3x3) QFN32 (5x5)	-	-

Design Like You Mean It

MP8869 - Wide Input 3-18V, 12A, Synchronous Step-Down Converter with Integrated Telemetry via I²C Interface

Visit www.monolithicpower.com for more information.

DC/DC POWER CONVERSION

SUPERVISORY

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _O (Typ) (μA)	Thresh old Acc (%)	Re-set Threshold Accuracy (%)	Delay Time (me)	LDO I _{OUT} (mA)	PSRR @1K	V _{DROPOUT} (mV)	Notes	Package	Industrial	AEC-Q Grade
MPQ6400	1.8	6	1.6	0.4	1	2.1 to 10000	-	-	-	Low Quiescent Current Programmable-Delay Supervisory Circuit,	TSOT23-6 QFN6 (2x2)	✓	✓
MP6401	2.5	5.5	80	0.25	7.5	3.125 to 1580	300	57	114 (IO: 300mA)	Linear Regulator with Integrated Re-Set Circuit	TQFN8 (3x3) TQFN6 (2x2) TSOT23-6	-	-
MP6402	2.5	5.5	400	-	3	Prog	500	60	260 (IO:500mA)	Dual LDO, Integrated Reset Circuit, Fixed Output Voltages from 0.9V to 3.3V	SOIC8E TQFN8 (3x3)	-	-

MOSFET 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)	Notes	Package	Industrial	AEC-Q Grade
MP18024	9	16	100	3	4.5	15	9	20	20	100V, 4A, High-Frequency, Half-Bridge Gate Driver	SOIC8E	-	-
MP1906	10	16	80	0.35	1	50	30	80	80	80V, Half-Bridge Gate Driver	SOIC8	-	-
MP1907	4.5	18	100	1.5	2.5	12	9	18	20	100V, 2.5A, High-Frequency Half-Bridge Gate Driver	QFN3x3-10	-	-
MP18021A	9	18	100	1.5	2.5	12	9	16	16	100V, 2.5A, High-Frequency, Half-Bridge Gate Driver	SOIC8E QFN8 (3x3)	✓	✓
MP18021	9	18	100	1.5	2.5	12	9	16	16	100V, High-Frequency, N-MOSFET, Half-Bridge Gate Driver with 1ns Matching Delay	SOIC8EP QFN8 (3x3)	-	-

PMIC & MULTIPLE OUTPUTS

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	Package	Industrial	AEC-Q Grade
MP5410	1.8	5.5	10	1.23	10	Variable	Low Start-Up Voltage Boost Converter with 4 SPDT Switches	QFN16 (3x3)	-	-
MP5414	1.8	5.5	10	1.23	10	Variable	Step-Up Converter, 4 SPDT Switches, LDO and Charger Designed for 3-D Glasses	QFN28 (4x5)	-	-

Flybacks

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{SW} Limit (Typ) (A)	I _O (Typ) (mA)	V _{FB} (V)	Switching Freq (kHz)	Sync	Notes	Package	Industrial	AEC-Q Grade
MP6004	14	80	2.05	0.38	1.99	10 to 200	-	13W, Integrated 180V Power Switch	QFN14 (3x3)	-	-

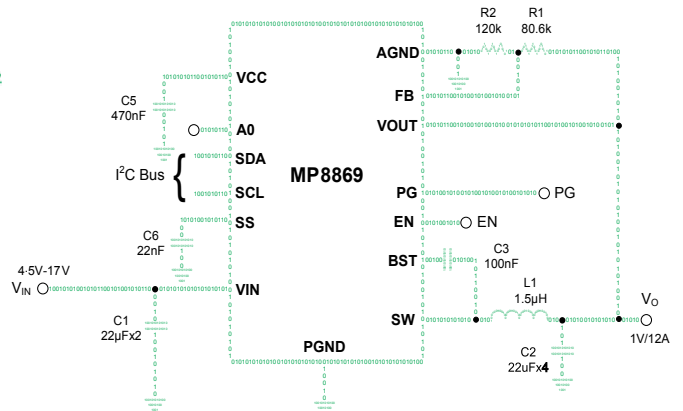
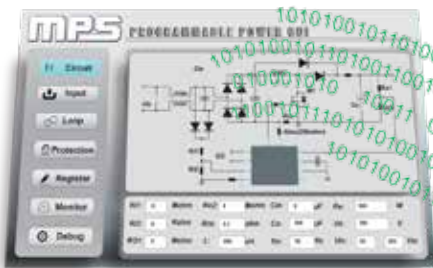
POE PD CONTROLLERS

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{SW} Limit (Typ) (A)	I _O (Typ) (mA)	V _{FB} (V)	Switching Freq (kHz)	Sync	Notes	Package	Industrial	AEC-Q Grade
MP3900	8.6	12	0.2V/R _{SENSE}	0.18	0.816	330	-	(Boost Controller) 10V Gate Drive	MSOP8	-	-
MP3908	4.75	12	0.19V/R _{SENSE}	0.27	0.82	260	✓	Synchronous Boost Controller, Optimized for PoE PD Power, Lossless Current Sense, Forward, Flyback, SEPIC Apps, External SS	MSOP10	-	-
MP6001	4.5	100	2	-	-	55 to 550	-	15W, Integrated 150V Power Switch	SOIC8E	-	-
MP6002	10	100	4	1	1.21	55 to 550	-	30W, Integrated 150V Power Switch	SOIC8E	-	-

POE PD IDENTITY

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Notes	Package	Industrial	AEC-Q Grade
MP8007	100V, 0.48Ω DMOS	840	Yes	802.3af	PoE PD Interface with 13W Primary-side Regulated Flyback or Buck Converter	QFN28 (4x5)	-	-
MP8008	100V, 0.48Ω DMOS	800	Yes	802.3af/802.3at	25W PoE PD Solution	QFN28 (4x5)	-	-
MP8004	100V, 1Ω DMOS	420	Yes	802.3af	13W PoE PD Interface and PWM Converter	QFN20 (4x6)	-	-
MP8005	100V, 1Ω DMOS	440	Yes	802.3af	13W PoE PD Interface and PWM Controller	TSSOP20	-	-
MP8001	100V, 0.8Ω DMOS	440	Yes	802.3af	15W PoE PD Controller	SOIC8	-	-

Sampling Now
Sampling Now



AC/DC POWER CONVERSION

EASYPower

Part Number	Power (W)	Control Method	Rds(on) (Ω)	Breakdown Voltage (V)	No-Load Power (mW)	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Notes	Package
MP100	Up to 0.5	Smart LDO	9.5	700	100	85AC	305AC	Inductor-Less Regulator for Low-Power Applications. Not Recommended for New Design / Recommend MP100L	SOIC8E
MP100L	Up to 0.5	Smart LDO	9.5	700	100	85AC	305AC	Inductor-Less Regulator for Low-Power Applications	SOIC8E
MP103	Up to 1	Smart LDO	-	700	100	85AC	305AC	Inductor-Less Controller for Low-Power Applications	SOIC8E
MP150	Up to 2	Non-Isolated Buck	30	500	150	85AC	265AC	Primary-Side Regulator for Low-Power Applications	TSOT23-5 SOIC8
MP153	Up to 6	Non-Isolated Buck	15	500	150	85AC	265AC	Smallest Energy Efficient Regulator with Extended Power Range	TSOT23-5 SOIC8
MP155	Up to 3	Non-Isolated Buck	20	500	100	85AC	265AC	Energy Efficient, Primary-Side Regulator	TSOT23-5 SOIC8
MP156	Up to 3	Non-Isolated Buck	20	500	30	85AC	265AC	Smallest Energy Efficient Regulator	TSOT23-5 SOIC8
MP157	Up to 6	Non-Isolated Buck	10	500	100	85AC	265AC	Smallest Energy Efficient Regulator with Extended Power Range	TSOT23-5 SOIC8
MP158	Up to 2	Non-Isolated Buck	20	500	100	85AC	265AC	Smallest Energy Efficient Regulator with a Peak Current Limit of 100mA, Enables Smallest Inductor Size for I _{OUT} <45mA	TSOT23-5 SOIC8
MP171	Up to 2	Non-Isolated Buck	20	700	30	85AC	305AC	Non-Isolated Off-Line Regulator, up to 60mA Output Current	TSOT23-5 SOIC8
MP172	Up to 3	Non-Isolated Buck	16	700	30	85AC	305AC	Non-Isolated Off-Line Regulator, up to 120mA Output Current	TSOT23-5 SOIC8
MP173	Up to 4	Non-Isolated Buck	14	700	30	85AC	305AC	Non-Isolated Off-Line Regulator, up to 280mA Output Current	TSOT23-5 SOIC8
MP174	Up to 5	Non-Isolated Buck	13.5	700	30	85AC	305AC	Non-Isolated Off-Line Regulator, up to 400mA Output Current	TSOT23-5 SOIC8

FLYBACK

Flyback Secondary-Side Regulation

Part Number	Typ Max Power (W)	Type	Switching Freq (Max) (kHz)	Control Method	V _{BR} (V)	R _{FB} (kΩ)	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Notes	Package
HFC0100	120	Controller	-	Quasi-Resonant	700	10	85AC	265AC	Quasi-Resonant Flyback Controller. Not Recommended for New Design	SOIC8
HFC0300	120	Controller	-	Variable Freq	700	-	85AC	265AC	Variable Off-Time Flyback Controller	SOIC-7
HFC0310	120	Controller	600	Fixed Freq	-	14	85AC	265AC	Fixed-Frequency Flyback Controller, Low Standby Power	SOIC8
HFC0400	120	Controller	65	Fixed Freq	700	13	85AC	265AC	Fixed-Frequency Flyback Controller with Ultra-Low, No-Load Power Consumption	SOIC8-7A
HFC0500	120	Controller	65	Fixed Freq	700	14	85AC	265AC	Fixed-Frequency Flyback Controller with HV Start-Up, X-Cap Discharge, Brown OUT/IN	SOIC8-7A
MP110	8	Regulator	300	Peak Current	900	10	85AC	440AC	Peak Current Control Flyback Controller with an Integrated 900V MOSFET. Not Recommended for New Design / Recommend HF900	PDIP8-7EP
HF900	8	Regulator	300	Peak Current	900	10	85AC	440AC	Peak Current Control Flyback Controller with an Integrated 900V MOSFET	PDIP8-7EP SOIC14-11
HF500-7	7	Regulator	65	Fixed Freq	700	14	85AC	265AC	Full-Featured Flyback Regulator with an Integrated 700V/10Ω MOSFET	SOIC8-7B
HF500-15	15	Regulator	65	Fixed Freq	700	14	85AC	265AC	Full-Featured Flyback Regulator with an Integrated 700V/5Ω MOSFET	SOIC8-7B

Quasi-Resonant Flyback Regulator

Part Number	Typ Max Power (W)	Type	Switching Freq (Max) (kHz)	Control Method	V _{BR} (V)	Rds(on) (Ω)	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Notes	Package
HF01B00	23	Regulator	150	Quasi-Resonant/ Flyback	700	1.9	85AC	265AC	Flyback, Low Standby Power, Power Dependent on Open Frame Not Recommended for New Design	PDIP8-7B
HF01B01	18	Regulator	150	Quasi-Resonant/ Flyback	700	3.3	85AC	265AC	Flyback, Low Standby Power, Power Dependent on Open Frame Not Recommended for New Design	PDIP8-7B
HF01B02	14	Regulator	150	Quasi-Resonant/ Flyback	700	5.5	85AC	265AC	Flyback, Low Standby Power, Power Dependent on Open Frame Not Recommended for New Design	PDIP8-7B
HF01B03	11	Regulator	150	Quasi-Resonant/ Flyback	700	7.7	85AC	265AC	Flyback, Low Standby Power, Power Dependent on Open Frame Not Recommended for New Design	PDIP8-7B
HF01B04	8	Regulator	150	Quasi-Resonant/ Flyback	700	11	85AC	265AC	Flyback, Low Standby Power, Power Dependent on Open Frame Not Recommended for New Design	PDIP8-7B SOIC8-7B

Primary-Side Regulation

Part Number	P _{OUT} (Max) (W)	Switching Freq (Max) (kHz)	Rds(on)	I _{SW} Limit (A)	V _{FB} (V)	V _{BR} (V)	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Notes	Package
MP020-5	7	75	10	0.38	4	700	85AC	265AC	Primary-Side Regulator with CV/CC Control	SOIC8-7A
MP023	20	80	-	-	4	700	85AC	265AC	Primary-Side Regulator with CV/CC Control	SOIC8-7A
MP024-10	10	80	5.5	-	4	700	85AC	265AC	Primary-Side Regulator with CV/CC Control	SOIC8-7A



AC/DC POWER CONVERSION											
LLC With 600V HALF-BRIDGE DRIVERS											
Part Number	Rsrc/Rsink (n)	Control Method	Topology	High-Voltage Start-Up	V _N (Min) (V)	V _N (Max) (V)	Notes				Package
HR1000	4/2	Resonant	LLC	No	85AC	265AC	Half-Bridge Controller, Variable Frequency, High-Power Applications, Not Recommended for New Design / Contact Factory.				SOIC16
HR1000A	4/2	Resonant	LLC	No	85AC	265AC	Half-Bridge Controller, Variable Frequency, High-Power Applications				SOIC16
HR1001	4/2	Resonant	LLC	No	85AC	265AC	Half-Bridge Controller, Variable Frequency, High-Power Applications, Adaptive Dead Time for Highest Efficiency and Anti-Capacitive Protection. Not Recommended for New Design / Recommend HR1001B				SOIC16
HR1001A	4/2	Resonant	LLC	No	85AC	265AC	Similar to HR1001B, except for Auto-Restart Protection at Overcurrent				SOIC16
HR1001L	4/2	Resonant	LLC	No	85AC	265AC	Similar to HR1001B, except for Latch Protection at Overcurrent				SOIC16
HR1001B	4/2	Resonant	LLC	No	85AC	265AC	Half-Bridge Controller, Variable Frequency, High-Power Applications Noise-Proof Enhanced Version of HR1001. Two Level OCP, 1st Level Auto Restart, 2nd Level Latch				SOIC16
PFC + LLC Combo Controller											
Part Number	LLC Control Method	PFC Control Method	Topology	High-Voltage Start-Up	Vin (Min) (V)	Vin (Max) (V)	Notes				Package
HR1200	Resonant	DCM/BCM/CCM	PFC+LLC	Yes	5	36	Combo Controller - Digital PFC +LLC, AC Power as Vcc				TSSOP28 SOIC28
HR1201	Resonant	DCM/BCM/CCM	PFC+LLC	No	5	36	Combo Controller - Digital PFC +LLC, Standby Power as Vcc				TSSOP28 SOIC28
PFC											
Part Number	I _{GATE SRC} / I _{GATE SINK} (mA)		Control Method	Topology	High-Voltage Start-Up	Vin (Min) (V)	Vin (Max) (V)	Notes			Package
MP44010	-350 / 600		Boundary Mode	Boost/Buck Boost	No	85AC	305AC	PFC Controller, Ultra-Low Start-Up Current (15μA)			SOIC8 DIP8
MP44011	-350 / 600		Boundary Mode	Boost/Buck Boost	No	85AC	305AC	PFC Controller, Harmonic Injection Function (Reduced Capacitor Value and Inductor Size Compared with MP44010)			SOIC8
MP44014	-750 / 800		Boundary Mode	Boost/Buck Boost	No	85AC	305AC	PFC Controller, Ultra-Low Start-Up Current (15μA) (BOM 2 BOM with L6562)			SOIC8
MP44014A	-750 / 800		Boundary Mode	Boost/Buck Boost	No	85AC	305AC	PFC Controller, Ultra-Low Start-Up Current (15μA) (BOM 2 BOM with L6562A)			SOIC8
POWER SAVERS											
Part Number	V(BR) DSS(V)	VGS (V)	Rds(on)	Control Method	ISC (mA)	Supply (μA)	Pin Voltage (V)	Vin (Min) (V)	Vin (Max) (V)	Notes	Package
LN60A01	600	1	190	-	-	-	-	-	-	Triple N-Channel MOSFET with Common Gate Control	SOIC8 DIP8
HF81	1000	-	-	-	3	15	1000	85AC	265AC	X Capacitor Bleeder	SOIC8
AC/DC POWER CONVERSION											
SYNCHRONOUS RECTIFIERS											
Synchronous Rectifiers Flyback Topology											
Part Number	P _{OUT} (Max) (W)	Type	Switching Freq (Max) (kHz)	Drain Rating	Operating Current (mA)	Regulation Voltage (mV)	V _{DD} (Min) (V)	V _{DD} (Max) (V)	Rds(on) (mΩ)	Notes	Package
MP6900	120	Controller	400	180	8	70	6	27	Ext. FET	Fast Turn-Off Intelligent Rectifier for Flyback	QFN6 (3x3)
MP6901	120	Controller	400	180	8	70	6	27	Ext. FET	High Noise Immunity, Fast Turn-Off Intelligent Rectifier for Flyback	TSOT23-5
MP6902	120	Controller	300	180	8	70	6	27	Ext. FET	Fast Turn-Off Intelligent Rectifier with Light-Load Management for Flyback	SOIC8
MP6905	150	Controller	400	180	8	30	8	24	Ext. FET	Fast Turn-Off Intelligent Rectifier	SOIC8
MP6906	150	Controller	400	180	8	30	4.2	35	Ext. FET	Fast Turn-Off Intelligent Rectifier, Vcc down to 4.2V	SOIC8 TSOT23-6
MP6960	250	Controller	400	180	8	70	8	24	Ext. FET	Fast Turn-Off Intelligent Rectifier with integrated CC/CV Controller	SOIC8
MP6910	250	Regulator	300	180	8	-	6	27	10	Fast Turn-Off Intelligent Rectifier with 10mΩ, 100V FET, VOUT up to 19V	TO220-3
MP6920	250	Regulator	300	60	5	-	8	24	10	Fast Turn-Off Intelligent Rectifier with Integrated 10mΩ, 60V FET, VOUT up to 12V	SOIC8E
MP6914	500	Regulator	-	30	1	-	6	24	5.3	Ideal Diode for Solar Panel Bypass	SOIC8E
Synchronous Rectifiers LLC Topology											
Part Number	P _{OUT} (Max) (W)	Type	Switching Freq (Max) (kHz)	Drain Rating	Operating Current (mA)	Minimum On Time (ns)	I _Q (mA)	Single/Dual	Notes		Package
MP6903	400	Controller	Up to 300	180	8	1000	0.25	Single	High Noise Immunity, Fast Turn-Off Intelligent Rectifier with Light-Load Management for LLC		SOIC-8E
MP6922	400	Controller	Up to 300	180	16	1000	0.5	Dual	Dual Fast Turn-Off Intelligent Rectifier, Vfwd 70mV for LLC		SOIC8E SOIC14
MP6922A	400	Controller	Up to 300	180	16	1000	0.5	Dual	High Efficiency, Dual Fast Turn-Off Intelligent Rectifier, Vfwd 30mV for LLC		SOIC8E SOIC14
MP6922L	400	Controller	Up to 300	180	16	1000	0.6	Dual	High Efficiency, Dual Fast Turn-Off Intelligent Rectifier, Vfwd 70mV for LLC. Shorten LL Mode Entry Ton Threshold. Disable Light-Load Entry when No Gate Pulse.		SOIC8
MP6923	400	Controller	Up to 300	180	16	1000	0.6	Dual	High Efficiency, Dual Fast Turn-Off Intelligent Rectifier, Vfwd 15mV for LLC.		SOIC14

LED LIGHTING & ILLUMINATION

AC/DC ISOLATED

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package	Industrial	AEC-Q Grade
MP4021	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC Recommend Next Generation Products MP4026 & MP4027	SOIC8	-	-
MP4021A	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC Recommend Next Generation Products MP4026 & MP4027	SOIC8	-	-
MP4026	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC	SOT23-6	-	-
MP4027	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	Primary-Side Control Offline LED Controller with Active PFC, NTC, and PWM Dimming	SOT23-8	-	-
MP4030	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	TRIAC Dimmable, Deep Dimming, Primary-Side Control, Offline LED Controller with Active PFC Recommend Next Generation Product MP4030A	SOIC8	-	-
MP4030A	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	Improved TRIAC Dimming Performance, Primary-Side Control, Offline LED Controller with Active PFC	SOIC8	-	-
MP4031	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	TRIAC and Analog Dimmable, Deep Dimming, Primary-Side Control, Offline LED Controller with Active PFC	SOIC8	-	-
MP4032-1	85 _{AC}	120 _{AC}	7	Flyback	Regulator	Integrated 500V FET, TRIAC Dimmable, Deep Dimming, Primary-Side Control, Offline LED Controller with Active PFC	SOIC8-7A	-	-
MP4033	85 _{AC}	120 _{AC}	Ext. FET	Flyback	Controller	Enhanced TRIAC-Dimmable, Primary-Side Control, Offline LED Controller with Active PFC	SOIC8 MSOP10 SOIC14	-	-
MP4034	85 _{AC}	120 _{AC}	7	Flyback	Regulator	Offline Primary-Side Isolated LED Driver IC	SOIC8 MSOP10 SOIC14	-	-
HR2000	85 _{AC}	265 _{AC}	Ext. FET	Resonant	Controller	PFC + Resonant Half-Bridge Fluorescent Lamp Driver, High-Power Application	SOIC16	-	-
HR1000A	85 _{AC}	265 _{AC}	Ext. FET	Resonant	Controller	Resonant Half-Bridge Controller, Variable Frequency, High-Power Application, auto-restart at OCP	SOIC16	-	-
HR1001B	85 _{AC}	265 _{AC}	Ext. FET	Resonant	Controller	Resonant Half-Bridge Controller, Variable Frequency, Noise-Proof Enhanced, High-Power Application, Two Level OCP	SOIC16	-	-
MP44010	85 _{AC}	305 _{AC}	Ext. FET	Boost/Buck-Boost	Controller	Offline PFC Controller, Boundary Conduction, Ultra-Low Start-Up Current (15μA)	SOIC8 DIP8	-	-
MP44011	85 _{AC}	305 _{AC}	Ext. FET	Boost/Buck-Boost	Controller	Offline PFC Controller, Boundary Conduction, Harmonic Injection Function (Reduced Capacitor Value and Inductor Size Compared with MP44010)	SOIC8	-	-
MP44014	85 _{AC}	305 _{AC}	Ext. FET	Boost/Buck-Boost	Controller	Offline PFC Controller, Boundary Conduction (BOM 2 BOM with L6562)	SOIC8	-	-

AC/DC NON-ISOLATED

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package	Industrial	AEC-Q Grade
MP4000	85 _{AC}	265 _{AC}	Ext. FET	Low-Side Buck	Controller	Non-Isolated WLED Driver Controller for Lowest Cost LED Lamps DC and PWM Dimming	SOIC8	-	-
MP4001	85 _{AC}	265 _{AC}	Ext. FET	Low-Side Buck	Controller	Offline LED Controller with Integrated High-Voltage LDO and DC/PWM Dimming	SOIC8	-	-
MP4050	85 _{AC}	265 _{AC}	7	Buck	Regulator	Cost-Effective, Non-Isolated Offline LED Controller Recommend Next Generation Product MP4050A	SOIC8 SOT23-5	-	-
MP4050A	85 _{AC}	265 _{AC}	8	Buck	Regulator	Cost-Effective, Non-Isolated Offline LED Controller with Enhanced Thermal	SOIC8 SOT23-5	-	-
MP4051	85 _{AC}	265 _{AC}	Ext. FET	Buck Boost	Controller	Non-Isolated, Offline LED Controller with Active PFC	SOIC8	-	-
MP4054	85 _{AC}	265 _{AC}	Ext. FET	Buck-boost	Controller	Non-Isolated, Offline LED Controller with Active PFC	SOT23-8	-	-
MP4054A	85 _{AC}	265 _{AC}	Ext. FET	Flyback	Controller	Non-Isolated Offline LED Controller with Active PFC, NTC, and PWM Dimming	SOT23-8	-	-
MP4056	85 _{AC}	265 _{AC}	Ext. FET	Buck-Boost	Controller	TRIAC Dimmable, Non-Isolated, Offline LED Controller with Active PFC	SOIC8 MSOP10 SOIC14	-	-
MP4060	85 _{AC}	265 _{AC}	Ext. FET	Buck-Boost	Controller	TRIAC Dimmable, High Line (230VAC), Low Power (<10W), Non-Isolated LED	SOIC8 MSOP10 SOIC14	-	-
MP4068	85 _{AC}	135 _{AC}	10	Buck/Buck-Boost	Regulator	Non-Isolated, TRIAC Dimmable PFC LED Driver For 120V(AC), up to 10W LEDs	SOIC8-7A SOIC8EP	-	-
MP4088	85 _{AC}	265 _{AC}	8.5	Buck/Buck-Boost	Regulator	Non-Isolated, TRIAC Dimmable PFC LED Driver For 230V(AC), up to 10W LEDs	SOIC8-7A SOIC8EP TSOT23-5	-	-

The World's Most Cost Effective Non-Isolated
TRIAC Dimmable PFC LED Driver

MP4088



LED LIGHTING & ILLUMINATION

DC/DC Lighting

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package	Industrial	AEC-Q Grade
MP3412	0.8	4.4	-	Boost	Regulator	1.1A, 1MHz, Synchronous Boost WLED Driver with Output Disconnect	TSOT23-6	-	-
MP2480	5	36	-	Buck	Regulator	3A Output Current, 3% Current Accuracy, Hysteretic Control	SOIC8E	-	-
MP2481	4.5	36	-	Buck-Boost	Regulator	Buck/Boost WLED Halogen Replacement up to 5W	MSOP8	-	-
MP24892	4.5	36	-	Low-Side Buck	Regulator	Lower Voltage, Higher Current, Lower Cost Version of MP2489	TSOT23-5	-	-
MP24893	6	36	-	Low-Side Buck	Regulator	Hysteretic, Low-Side Buck for Minimal Ext., Low Cost Version of MP2489	QFN6 (3x3) TSOT23-5	-	-
MP2483	4.5	55	-	Buck/Buck-Boost	Regulator	DC and PWM Dimming Control Using a Single Pin, Consumer Grade	QFN10 (3x3) SOIC14	✓	✓
MPQ2483	4.5	55	-	Buck, Buck-Boost	Regulator	DC and PWM Dimming Control Using a Single Pin, Available in AEC-Q100	QFN10 (3x3) SOIC14		
MP24183	4.5	55	-	Buck/Buck-Boost	Regulator	DC and PWM Dimming Control Using a Single Pin	QFN10 (3x3)	-	-
MP2488	4.5	55	-	Buck	Regulator	Up to 97.5% Efficiency, 220mΩ, Internal Power MOSFET	QFN10 (3x3) SOIC8E	-	-
MP2487	4.5	55	-	Buck	Regulator	Up to 97.5% Efficiency, 220mΩ, Internal Power MOSFET	SOIC8E	-	-
MP24833	4.5	55	-	Buck/Buck-Boost	Regulator	Recommend Next Generation Product MP24833-A	SOIC8E	-	-
MP24833-A	4.5	55	-	Buck/Buck-Boost	Regulator	3A, 200kHz, 0.19Ω Internal Power MOSFET	SOIC8E	-	-
MP4012	8	55	Ext. FET	Boost & Other Topologies	Controller	HV9912 Pin Comp, for Backlight (Ex: Vout >200V) and Lighting (High-Output Power)	SOIC16	-	-
MP2489	6	60	-	Low-Side Buck	Regulator	Hysteretic, Low-Side Buck for Minimal Ext., Component & Fast Transient Response. Available in AEC-Q100	QFN6(3x3) TSOT23-5 SOIC8E	-	✓
MP24894	6	60	Ext. FET	Low-Side Buck	Controller	Step-Down WLED Current Controller with Wide 6V to 60V Input Voltage	TSOT6	-	-
MP4688	4.5	75	-	Buck	Regulator	MPS Adaptive Hysteretic for High-Output Current Accuracy	SOIC8E	-	-
MP4689	4.5	95	-	Buck	Regulator	MPS Adaptive Hysteretic for High-Output Current Accuracy	SOIC8E	-	-
MP2410	4.2	24	-	Buck	Regulator	2A, 1MHz, up to 97% Efficiency Synchronous Buck, analog dimming only	TSOT23-6 TSOT23-8	-	-
MP2410A	4.2	24	-	Buck	Regulator	2A, 1MHz, up to 97% Efficiency Synchronous Buck, analog and PWM dimming	TSOT23-6 TSOT23-8	-	-

PHOTO FLASH

Part Number	Charge Type	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{SW} (Max) (V)	I _{OUT} (Max) (A)	I _{OUT} (Min) (A)	Notes	Package	Industrial	AEC-Q Grade
MP3331	WLED	2.7	5.5	6	2	-	Single Channel Boost WLED Driver for Smart Phone Camera Flash	WLCSP-1.7x1.7	-	-
MP3361	Xenon Flash	2.5	6	60	1.2	1.0 (Typ)	Highly Integrated Xenon Photo-Flash Charger and IGBT Driver	MSOP10	-	-
MP3360	Xenon Flash	2.5	6	60	1.7	0.4	Programmable Peak Current, Highly Integrated Xenon Photo-Flash Charger and IGBT Driver for Mobile Phones	QFN10 (2x2)	-	-
MP3356	Xenon Flash	2.8	6	50	1.7	1.5	Highly Integrated Xenon Photo-Flash Charger and IGBT Driver for DSC	QFN10 (2x2)	-	-
MP3351	Xenon Flash	3	6	60	2	0.3	Integrated Photo-Flash Charger with IGBT Driver	QFN16 (3x3)	-	-
MP3352	Xenon Flash	3	6	60	2.5	0.3	Integrated Photo-Flash Charger with IGBT Driver and Quench	QFN16 (3x3)	-	-

PROTECTION

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Power (W)	Control Method	Type	Notes	Package	Industrial	AEC-Q Grade
MP4690	-	-	-	Shunt	-	Smart Bypass for LED Protection, 6V Threshold Voltage Protects One LED	SOD123	-	-

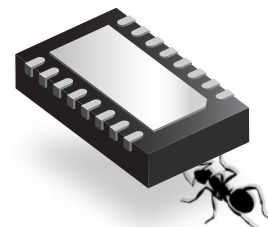
2A, 1MHz, up to 97% Efficiency Synchronous Buck
Analog and PWM Dimming
MP2410A



MODULES										
Part Number	I _{OUT} (A)	V _{IN} (V)	I _Q (μA)	Light-Load Efficiency	Power Good	Soft Start	Protection Features OCP/SCP/ULVO/OTP	Notes	Package	Solution Size
MPM3804	0.6	2.3 to 5.5	11	✓	✓	Internal	✓	100% Duty Cycle, Output Discharge, Synchronous Step-Down Converter with Integrated Inductor	2x2x0.9mm QFN10	-
MPM3805	0.6	2.5 to 6	17	✓	✓	Internal	✓	Adjustable Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3805-1.2V	0.6	2.5 to 6	17	✓	✓	Internal	✓	1.2V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MP3805-1.8V	0.6	2.5 to 6	17	✓	✓	Internal	✓	1.8V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3805-2.5V	0.6	2.5 to 6	17	✓	✓	Internal	✓	2.5V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3805-3.3V	0.6	2.5 to 6	17	✓	✓	Internal	✓	3.3V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3606	0.6	4.5 to 21	200	✓	-	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor	3x5x1.6mm QFN20	6.7x6.3mm
MPM3606A	0.6	4.5 to 21	300	✓	✓	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor with PG	3x5x1.6mm QFN20	6.7x6.3mm
MPM3506A	0.6	4.5 to 36	580	-	✓	Internal	✓	High Voltage, Synchronous Step-Down Converter with Integrated Inductor	3x5x1.6mm QFN19	6.7x6.3mm
MPM38111	1 (x2)	2.7 to 6	45	✓	-	Internal	✓	Dual Channel, 100% Duty Cycle, Synchronous Step-Down Converter with Integrated Inductor	4x4x1.6mm QFN14	-
MPM3810	1.2	2.5 to 6	17	✓	✓	Internal	✓	Adjustable Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3810-1.2V	1.2	2.5 to 6	17	✓	✓	Internal	✓	1.2V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3810-1.8V	1.2	2.5 to 6	17	✓	✓	Internal	✓	1.8V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3810-2.5V	1.2	2.5 to 6	17	✓	✓	Internal	✓	2.5V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3810-3.3V	1.2	2.5 to 6	17	✓	✓	Internal	✓	3.3V Fixed Vout, Synchronous Step-Down Converter with Integrated Inductor	3x2.5x0.9mm QFN12	3.81x5.97mm
MPM3610	1.2	4.5 to 21	200	✓	-	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor	3x5x1.6mm QFN20	6.7x6.3mm
MPM3610A	1.2	4.5 to 21	200	✓	✓	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor with PG	3x5x1.6mm QFN20	6.7x6.3mm
MPM3510A	1.2	4.5 to 36	580	-	✓	Internal	✓	High Voltage, Synchronous Step-Down Converter with Integrated Inductor	3x5x1.6mm QFN19	6.7x6.3mm
MPM38222	2 (x2)	2.7 to 6	45	✓	-	Internal	✓	Dual Channel, 100% Duty Cycle, Synchronous Step-Down Converter with Integrated Inductor	4x4x1.6mm QFN14	-
MPM3620	2	4.5 to 24	200	✓	-	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor	3x5x1.6mm QFN20	6.7x6.3mm
MPM3620A	2	4.5 to 24	200	✓	✓	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor with PG	3x5x1.6mm QFN20	6.7x6.3mm
MPM3830	3	2.7 to 6	40	✓	✓	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor	3x5x1.6mm QFN20	8.5x4.5mm
MPM3630	3	4.5 to 18	320	✓	✓	Internal	✓	Synchronous Step-Down Converter Module with Integrated Inductor	3x5x1.6mm QFN20	-
MPM3840	4	2.8 to 5.5	40	✓	✓	Internal	✓	100% Duty Cycle, Synchronous Step-Down Converter Module with Integrated Inductor	3x5x1.6mm QFN20	-
MPM3680	6	2.5 to 18	860	✓	✓	Internal/External	✓	18V,6A Step-Down Power Module in a 12x12x4mm QFN	12x12x4mm QFN57	-
MPM3682	10	2.5 to 18	860	✓	✓	Internal/External	✓	18V, 10A Step-Down Power Module in a 12x12x4mm QFN	12x12x4mm QFN57	-
MPM3684	15	2.5 to 18	860	✓	✓	Internal/External	✓	18V, 15A Step-Down Power Module in a 12x15x4mm QFN	12x15x4mm QFN65	-
MPM3686	20	2.5 to 18	860	✓	✓	Internal/External	✓	18V, 20A Step-Down Power Module in 12x15x4mm QFN	12x15x4mm QFN65	-

Bigger Isn't Better
Tiny Package. Massive Power.

MPS Power Modules



BATTERY MANAGEMENT

CIGARETTE LIGHT ADAPTERS

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Absolute V _{IN} (Max) (V)	I _{OUT} (A)	Switching Freq (kHz)	Short-Circuit Switching Freq (kHz)	Soft Start	Shutdown Supply Current (Max) (μA)	Notes	Package
MP2490	4.5	36	40	1.5	700	200	External	10	Programmable Output Current Limit	SOIC8 QFN10 (3x3)
MP2493	4.5	36	40	2	130	35	External	10	Low EMI, Programmable Output Current Limit	SOIC8 SOIC8E
MP2497	4.5	50	60	3	100	50	Internal	10	Programmable Output OVP Threshold	SOIC8 SOIC8E
MP2497A	4.5	50	60	3	100	50	Internal	10	Fast Switching Step-Down Converter with Programmable Output OVP Threshold	SOIC8 SOIC8E
MP24971	8	50	-	1.5	100	-	Internal	-	Programmable Current Limit, Output Line-Drop Compensation, Output Over-Voltage Protection	SOIC8 SOIC8E
MP2492	4.5	55	60	2	100	100	External	10	Programmable Output Current Limit	SOIC8E QFN10 (3x3)
MP2494	4.5	55	60	2	100	100	External	10	-	SOIC8 SOIC8E
MP24943	4.5	55	-	3	100	-	External	-	Programmable Output OVP Threshold	SOIC8 SOIC8E

CRADLE CHARGERS

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Cells	I _{CHARGE} (A)	Trickle Charge	Charge Status	Charge Type	Notes	Package
MP26085	7	20	-	-	-	-	CV/CC Controller	CC/CV Controller with 1.223V Voltage Reference	SOT23-8
MP26075	2.2	28	1	1	✓	✓	CV/CC Linear	Includes a Pre-Charge Function, Thermal Foldback, and a Voltage Control Function for a Flyback Controller	QFN10 (3x3)
MP2681	4.5	30	3-5	4	No	No	CV/CC Controller	CC/CV Controller with Full Protection and Indication. One Chip Solution for Power Tool Applications	SOIC 16

LINEAR CHARGERS

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Cells	I _{CHARGE} (A)	Trickle Charge	Charge Status	Charge Type	Notes	Package
MP2660	4.5	5	1	0.50	✓	✓	CV/CC Linear	Li-Ion Charger with I2C Control Interface	CSP(6)
MP2607	4.5	12	1	Up to 1.5	✓	✓	CV/CC Linear	Li-Ion Linear Charger with System Power-Path Management	QFN14 (3x4)
MP26028	3.5	20	1	Up to 1	✓	✓	CV/CC Linear	Includes Battery Temp Monitor, Trickle Charge	QFN10 (3x3)
MP26060	3.5	24	1	Up to 1	✓	✓	CV/CC Linear	4.15V Output Safe Charge	QFN10 (3x3)
MP2603	4.75	25	1	Up to 0.15	✓	✓	CV/CC Linear	Simple System Charger, 50mA to 150mA Programmable Charge, No NTC	TSOT23-5
MP2631	3	28	1	Up to 1	✓	✓	CV/CC Linear	Li-Ion, Linear Battery Charger with 10mA High-Voltage LDO	QFN10 (3x3)
MP2608	3.5	28	1	Up to 1	✓	✓	CV/CC Linear	Dual Input USB & AC-Adapter	QFN10 (3x3)
MP2604	3.5	28	1	Up to 1	-	✓	CV/CC Linear	Includes NTC, Battery Temp Monitor	QFN10 (3x3)
MP2602	3.5	28	1	Up to 1	✓	✓	CV/CC Linear	Includes NTC, Battery Temp Monitor, Trickle Charge	QFN10 (3x3)
MP2606	3.5	28	1	Up to 1	-	✓	CV/CC Linear	Wide IBF Hysteresis, NTC	QFN10 (3x3)
MP26056	3.5	28	1	Up to 1	✓	✓	CV/CC Linear	Dual-Mode USB & AC Adapter	QFN10 (3x3)
MP2605	3.5	28	1	Up to 1	✓	✓	CV/CC Linear	Auto-Charge Term & Recharge, Timer	QFN10 (3x3)
MP26053	3.5	28	1	Up to 1	✓	✓	CV/CC Linear	I _{chg} =10% of Iset, Auto-Charge Term & Recharge, Timer	QFN10 (3x3)
MP26058	3.5	28	1	Up to 1	-	✓	CV/CC Linear	Includes LDO Mode & Timer	QFN10 (3x3)
MP26057	3.5	28	1	Up to 1	✓	✓	CV/CC Linear	Travel Charger	QFN10 (3x3)
MP26121	3.5	28	1	Up to 1	✓	✓	CV/CC Linear	Li-Ion Linear Battery Charger with 10% Battery Full Threshold, Flexible NTC Interface	QFN10 (3x3)

POWER BANK MANAGEMENT

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Charge Current (Max) (A)	Output Curr Boost Mode (A)	Switching Freq (kHz)	# of Cells	Battery Charge Voltage (V)	Battery Type	Notes	Package
MP2633	4.5	6	1.5	1.5	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	Single-Cell Switching Charger with Power-Path Management and 1A Boost OTG	QFN24 (4x4)
MP2633A	4.5	6	1.5	1	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	Single-Cell Switching Charger with Power-Path Management and 1A Boost OTG	QFN24 (4x4)
MP2635	4.5	6	2	1.5	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	Single-Cell Switching Charger with Power-Path Management and 1A Boost OTG	QFN24 (4x4)
MP2635A	4.5	6	2	1	1200/600	1	4.2/3.6	Li-Ion Li-Polymer	Single-Cell Switching Charger with Power-Path Management and 1A Boost OTG	QFN24 (4x4)
MP2636	4.5	6	3	3	600	1	4.2/4.3/4.35	Li-Ion Li-Polymer	Single-Cell Switching Charger with Power-Path Management and 3A System Boost Current	QFN30 (4x4)
MP2632	4.65	6	3	3	600	1	4.2/4.35/4.45	Li-Ion Li-Polymer	All-in-One 3A battery Charger with 3A Boost Current	QFN26(4x4)
MP2690	4.65	6	2.5	2.1	600	1	4.2/4.35/4.45	Li-Ion Li-Polymer	All-in-One 2.5A Battery Charger with 2.1A Boost Current	QFN26(4x4)
MP2691	4.65	6	2.5	2.4	600	1	4.2/4.35/4.45	Li-Ion Li-Polymer	All-in-One 2.5A Battery Charger with 2.4A Boost Current	QFN26(4x4)
MP2637	4.5	6	2.5	2.4	600	1	4.2/4.35	Li-Ion Li-Polymer	Single-Cell Switching Charger with Power-Path Management and 2.4A System Boost Current	QFN24 (4x4)

PROTECTION

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	# of Cells	I _{CHARGE} (A)	Trickle Charge	Charge Status	Charge Type	Notes	Package
MP2671	2.6	30	1	-	-	-	Battery Protect	Li-Ion Battery Charger with Protection Circuit	QFN12 (3x4)
MP2670	4.3	30	1	-	-	-	Battery Protect	Li-Ion Battery Charger with Protection Circuit	QFN10 (3x3)
MP2674	4.3	30	1	-	-	-	Battery Protect	Li-Ion Charger, Protection Circuit, Tolerates Input Surge up to 30V, Small Pkg	QFN8 (2x2)

CLASS-D AUDIO											
ANALOG INPUT											
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	P _{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Type	Notes	Package	Industrial	AECQ Grade
MP1720	2.5	5.5	2.7	90	0.11 @ 1W	60	Mono	Mono BTL, Low EMI, High-Efficiency, Flexible Switching-Frequency Setting	QFN10 (3x3) MSOP10E	-	-
MP1740	2.5	5.5	3	90	0.11 @ 1W	62	Mono	Mono BTL, Ultra Small for Portable and Mobile Phones	9-Ball WLCSP (1.5x1.5)	-	-
MP7731	9.5	18	30	90	0.10 @ 1W	60	Mono	30W Class-D Mono Amplifier	TSSOP20F	√	-
MPQ7731	9.5	18	30	90	0.10 @ 1W	60	Mono	30W Class-D Mono Amplifier	TSSOP20F	-	-
MP7720	9.5	24	20	93	0.04 @ 1W	60	Mono	Single-Ended Audio Amplifier	PDIP8 SOIC8	-	-
MP7722	9.5	24	20 (2x)	93	0.06 @ 1W	60	Stereo	Stereo, Single-Ended Audio Amplifier	TSSOP20F	-	-
MP7745	9.5	26	20 (2x)	93	0.05 @ 1W	59	Stereo	Stereo, Single-Ended, Fully Integrated Audio Amplifier, p2p with MP7722	TSSOP20F	-	-
MP7742	9.5	28	15 (2x)	90	0.018 @ 1W	60	Stereo	Stereo, Single-Ended, Fully Integrated Audio Amplifier, p2p with MP7722	TSSOP20F	-	-
MP7741	9.5	36	10	94	0.02 @ 1W	58	Mono	Single-Ended, Fully Integrated Audio Amplifier	QFN10 (3x3)	-	-
MP7740	9.5	36	15	90	0.018 @ 1W	60	Mono	Single Ended, p2p MP7720	SOIC8	-	-
MP7747	9.5	36	20	91	0.02 @ 1W	59	Mono	Single-Ended, Fully Integrated Audio Amplifier	QFN10 (3x3)	-	-
MP7748	9.5	36	20 (2x)	91	0.02 @ 1W	60	Stereo	Stereo Single-Ended, Fully Integrated Audio Amplifier	TSSOP28F	-	-
MP7748S	9.5	36	30 (2x)	94	0.02 @ 1W	59	Stereo	2x30W Stereo SE or 1x60W BTL Class-D Audio Amplifier	TSSOP28EP	-	-
MP7751	5	26	20 (2x)	92	0.06 @ 1W	60	Stereo	5-26VDD, 2 x 20W Stereo BTL Class-D Audio Amplifier	TSSOP28EP	-	-
MP7752	5	18	15 (2x)	90	0.06 @ 1W	60	Stereo	5-18VDD, 2 x 15W Filterless Stereo BTL Class-D Audio Amplifier	TSSOP28EP	-	-
MP7770	9.5	36	45 (2x)	95	0.03 @ 1W	60	Stereo	2x45W Stereo SE or 1x90W BTL Audio Amplifier, 8.5A Peak	TSSOP28F	-	-
PWM INPUT POWER DRIVERS											
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	P _{OUT} (W)	Efficiency (%)	THD+N (%)	PSRR (dB)	Type	Notes	Package	Industrial	AECQ Grade
MP7782	9.5	24	50	90	0.06 @ 1W	60	Mono	Full-Bridge BTL Output	TSSOP20F	-	-

Class-D Audio



MPS offers highly efficient, innovative, easy-to-use amplifiers that increase performance and reliability.

DISPLAY BACKLIGHTING POWER

WHITE LED DRIVERS (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)	Switching Freq (kHz)	Open LED Protection	Type	Notes	Package	Industrial	AECQ Grade
MP3412	0.8	4.4	5	1	1.1	0.2	1000	✓	Boost	High-Efficiency, 0.8V Low Start-Up Voltage	TSOT23-6	-	-
MP9361	2.8	5	5	1	-	-	1350	-	Regulated Charge Pump	Internal SS	TSOT23-6	✓	-
MPQ9361	2.8	5	5	1	-	-	1350	-	Regulated Charge Pump	Internal SS, Available in Industrial Grade	TSOT23-6	-	-
MP3312	2.7	5.5	36	2	1.8	0.24	1200	✓	Boost	P2P Compatible with TPS61163 for Smart Phones LCD Backlight.	WLCS9P (1.3x1.3)	-	-
MP3309	2.7	5.5	35	1	1.5	0.2	300 to 1200 Programmable	✓	Boost	Synchronous Boost LED Driver for Tablet and Smart Phone	QFN10 (1.4x1.8)	-	-
MP3309C	2.7	5.5	35	1	1.5	0.2	300 to 1200 Programmable	✓	Boost	Synchronous Boost LED Driver With I2C Interface for Tablet and Smart Phone	QFN10 (1.4x1.8)	-	-
MP3307	2.7	5.5	35	1	1.6 (Min)	0.2	300 to 2200 Programmable	✓	Boost	Up to 2.2MHz Boost WLED Driver for Automotive Infotainment LCD Display Backlight	TSOT23-8	-	-
MP1519L	2.5	5.5	-	3	-	-	1300	✓	Charge Pump	Common Cathode	QFN16 (3x3) TQFN16 (3x3)	-	-
MP1519	2.5	5.5	-	4	-	-	1300	-	Charge Pump	Common Cathode	QFN16 (3x3)	-	-
MP1529	2.7	5.5	25	3	1.2	-	1200	✓	Boost	Integrated Flash	QFN16 (4x4)	-	-
MP3021	2.7	5.5	-	4	-	-	1250	-	Charge Pump	Single-Wire Brightness Control, Common Anode	QFN16 (3x3)	-	-
MP3204	2.5	6	21	1	0.35	0.104	1300	✓	Boost	UVLO, Low EMI, Thermal Shutdown	TSOT23-6	-	-
MP3205	2.5	6	21	1	0.35	0.104	1300	-	Boost	MP3204 without OV Pin	TSOT23-5	-	-
MP3304 (A/B/C)	3	6	36/24/18	1	1.33	0.2	2200	✓	Boost	High Efficiency, True PWM Dimming	QFN8 (2x3)	-	-
MP3305	3	6	36	1	1.33	0.2	2200	✓	Boost	High Efficiency, True PWM Dimming, Adjustable OVP Threshold	QFN8 (2x3)	-	-
MP3308	3	6	36	1	1.3	0.2	2200	✓	Boost	Boost WELD Driver Supporting CABC Dimming for Tablet PC or Smart Phone Backlight	QFN14 (3x4)	-	-
MP1518	2.5	6	25	1	0.35	0.104	1300	-	Boost	2.5V to 6Vin, 0.35A Boost WLED Driver	QFN8 (2x2) TSOT23-6	-	-
MP3202	2.5	6	25	1	1.3	0.104	1300	✓	Boost	1.3A Current Limit, UVLO, Low EMI, Thermal Shutdown	QFN8 (2x2) TSOT23-5	-	-
MP3301	2.5	6	36	1	1	-	1300	✓	Boost	Boost WLED Driver for up to 10 Series LED, for Smart Phone LCD Panel Backlight	TSOT23-5	-	-
MP3302	2.5	6	36	1	1.3	0.2	1300	✓	Boost	Large Panel Drive, High-Voltage Output	QFN8 (2x3) TSOT23-5	-	-
MP3306	3	12	30	1	1.8	0.2	700	✓	Boost	Synchronous Boost LED Driver with Integrated Disconnect FET for Small Size LCD Panel	QFN12 (2x2)	-	-
MP1517	2.6	25	25	1	4	0.7	1100	✓	Boost	UVLO, External Comp	QFN16 (4x4)	-	-
MP3388S	4.5	25	50	8	2	0.6	625 or 1250	✓	Boost	PWM or DC Input Burst PWM Dimming	QFN24 (4x4) SOIC28	-	-
MP3387L	3	25	50	6	2.5	0.6	500 to 1250	✓	Boost	6-Channel, 50Vout, Boost WLED Driver with Smart Dimming to Avoid Audible Noise	TQFN24 (4x4)	-	-
MP3310	4.5	25	50	1	1.3	0.5	1200 Programmable	✓	Boost	50V, 1.3A, Wide 4.5V to 25V Input Range	QFN10 (3x3)	-	-
MP3384L	3	25	50	4	1.3	0.6	1250 or 625	✓	Boost	50V, 1.2A, 4-Channel Balanced Current Source	QFN16 (3x3)	-	-
MPQ3386	4.5	25	50	6	2.5	0.6	1250	✓	Boost	50V, 6 String White LED Driver with AEC-Q100 qualified	QFN24 (4x4)	✓	✓
MP4013B	8	26	Ext. FET	1	Ext. FET	0.6	100 to 600	✓	Boost	More Features, Better Protection, More Cost Effective, Replacing MP4012 and MP4013 in All New Designs.	SOIC16	-	-
MP3389	5	28	Ext. FET	12	Ext. FET	0.6	100 to 500	✓	Boost	External MOSFET, PWM or DC Input Burst PWM Dimming	TSSOP28E SOIC28	-	-
MP3398A	5	28	Ext. FET	4	Ext. FET	0.6	100 to 500	✓	Boost	Inductor-Short Protection, Separate ADIM Pin	TSSOP16E SOIC16 SOIC20	-	-
MP3398L	4.5	28	Ext. FET	4	Ext. FET	0.6	100 to 500	✓	Boost	Lower Vin-Min of MP3398A, Suitable for USB Powered Applications	SOIC16	-	-
MP3394S	5	28	55	4	Ext. FET	0.3	150-500	✓	Boost	P2P Compatible with MP3394, for New Designs Recommend MP3394S	TSSOP16EP SOIC16	-	-
MP3385	4.5	33	Ext. FET	4	Ext. FET	0.6	100-900	✓	Boost	I2C Digital Interface, ABS 80V LED Feedback Voltage Rating, Max 300mA per Channel	QFN20	-	-
MP3391	9	35	Ext. FET	8	Ext. FET	0.45	150-500	✓	Boost	8-Channel, 80mA/Channel Boost Controller for 18-24" LCD Panel/TV	SOIC28 TSSOP28E	-	-
MP1528	2.7	36	36	1	0.95	0.4	Variable	✓	Boost	2.7V to 36Vin, 36Vout Boost WLED Driver	MSOP8 QFN6 (3x3) QFN8 (2x2)	-	-
MP3373	9	40	Ext. FET	8	Ext. FET	0.2	100 to 1000	✓	Boost	Advanced Version of MP3393: Adding Phase-Shift, Inductor-Short Protection; More Cost Competitive, Replacing MP3393 in New Designs	SOIC28 TSSOP28	-	-
MP4601	4.5	75	75	1	2.5	0.2	200 to 2000 Programmable	✓	Buck-Boost	Novel Power-Leverage Technology for 60+* TV, Can Regulate LED String Voltage up to 350V	TSSOP16E SOIC16	-	-
MP4700	Offline	Offline	Ext. FET	1	Ext. FET	0.3	Up to 160	External Components	Buck	BCM Zero Current & Valley Voltage Switching for >97% Efficiency, Low BOM Cost Due to Low-Power Stress	SOIC8E	-	-
MP24830-C470	Offline	Offline	Ext. FET	1, 2, 4	Ext. FET	0.2	50 to 365	✓	Buck Boost	Power Leverage LED Driver in 2.5 Power Stage, Low BOM Cost & High Efficiency for Large TV	SOIC14, QFN14 (Coming)	-	-
MP4653	Offline	Offline	Ext. FET	1, 2, 4	Ext. FET	0.2	20 to 250	✓	LLC	LIPS CC/CV Mode, LLC LED Driver for Large TV, 2-Power Stage for Low BOM Cost & High Efficiency for Large TV	SOIC20	-	-
EL DRIVERS													
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (Max) (V)	# of Channels	Current Limit (Typ) (A)	V _{FB} (V)	Switching Freq (kHz)	Open LED Protection	Type	Notes	Package	Industrial	AECQ Grade
MP3802	1.8	5.5	120V AC (240Vpp)	-	-	-	240 EL Lamp	-	EL Lamp Driver	240Vpp AC Output EL	MSOP8 QFN8 (3x3)	-	-
MP3801	2.5	5.5	95 AC (190Vpp)	-	-	-	240 EL Lamp	-	EL Lamp Driver	190Vpp AC Output EL	MSOP8	-	-

E-FUSE & LOAD SWITCHES									
USB LOAD SWITCHES									
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	Notes	Package
Single Channel									
MP6205	2.7	5.5	0.5	1	Active High	Over-Current, Active Low	No	p2p TPS2041B/51B	QFN8 (2x3) MSOP8E SOIC8E
MP62055 (-3)	2.7	5.5	0.5	1.1	Active High	Over-Current, Active High	No	Small Package, p2p TPS2051B	TSOT23-5 SOIC8 (62055-3)
MP62130 MP62131	2.7	5.5	0.5	1.1	Active Low Active High	Over-Current, Active Low	Yes	p2p LM3525M-L	MSOP8 SOIC8
MP62061	2.7	5.5	0.7	1.25	Active High	Over-Current, Active High	No	p2p TPS2051B	MSOP8E SOIC8E
MP62071	2.7	5.5	0.8	1.1	Active High	Over-Current, Active High	No	p2p TPS2051B	MSOP8E
MP6211	2.7	5.5	1	2.2	Active High	Over-Current, Active Low	No	p2p TPS2051B	SOIC8E MSOP8E
MP6212	2.7	5.5	1	2.2	Active Low	Over-Current, Active Low	No	with 90µA I _q & 1.5A Current Limit	SOIC8E MSOP8E
MP6211-3 MP6212-3	2.7	5.5	1	2.2	Active High Active Low	Over-Current, Active Low	No	FLAG Output Remains Low after a Short Circuit or Thermal Current-Limit Event	SOIC8E MSOP8E
MP6215	2.7	5.5	1.5	2.3	Active High	Over-Current, Active Low	No	-	MSOP8E
MP62170 MP62171	2.7	5.5	1.5	2.3	Active Low Active High	Over-Current, Active Low	No	p2p TPS2061 and p2p TPS2065	SOIC8 MSOP8
MP62170-1 MP62171-1 MP62171-3	2.7	5.5	1.5	2.3	Active Low Active High	Over-Current, Active Low	Yes	p2p TPS2061 and p2p TPS2065	SOIC8 MSOP8
MP62550 MP62551	2.5	5.5	1.5	1.7	Active Low Active High	Over-Current, Active Low	No	Precision Adjustable Current-Limited Power Distribution Switch 60mA, 1.7A, 88/100mΩ @100mA, 1.5µA Max Shutdown Current	TQFN6 (2x2) TSOT23-6
MP62040	1.7	5.5	2	-	Active Low	-	No	Ultra-Small Package	UTQFN4
MP62040-1 MP62041-1	1.7	5.5	2	-	Active Low Active High	-	Yes	Ultra-Small Package	UTQFN4
MP62160 MP62161	2.7	5.5	2	2.8	Active Low Active High	Over-Current, Active Low	Yes	-	QFN8E MSOP8E SOIC8
MP62180 MP62181	2.7	5.5	2	2.8	Active Low Active High	Over-Current, Active Low	No	Without Output Discharge Version of MP62160/1	QFN8E MSOP8E SOIC8
MP62260 MP62261	2.7	5.5	2	3	Active Low Active High	Over-Current, Active Low	No	50mΩ R _{ds(on)} , Current-Limit Switch, p2p TPS2024 and p2p TPS2034	SOIC8
MP62260-1 MP62261-1	2.7	5.5	2	3	Active Low Active High	Over-Current, Active Low	Yes	45mΩ R _{ds(on)} , p2p TPS2024 and p2p TPS2034	SOIC8
Dual Channel									
MP62350 MP62351	2.7	5.5	0.5	0.75	Active Low Active High	Over-Current, Active Low	Yes	Dual 500 mA/ch Current-Limit Switch, p2p LM3526	SOIC8 MSOP8
MP6231 MP6232	2.7	5.5	0.5	1.1	Active High Active Low	Over-Current, Active High	No	Dual 500 mA/ch Current-Limit Switch, p2p TPS2052B and p2p TPS2042B	SOIC8 SOIC8E MSOP8E
MP62340 MP62341	2.7	5.5	1	1.5	Active Low Active High	Over-Current, Active Low	No	3.3V/5V Dual 1A Current-Limit Switch, p2p TPS2066/2	MSOP8E SOIC8
MP62340-1 MP62341-1	2.7	5.5	1	1.5	Active Low Active High	Over-Current, Active Low	Yes	3.3V/5V Dual 1A Current-Limit Switch with Output Discharge, p2p TPS2066/2	MSOP8E SOIC8
MP6233	2.7	5.5	1.5	2.6	Active High	Over-Current, Active Low	No	1.5A Current-Limit Switch	MSOP8E

When it comes to E-fuses and load switches, MPS offers ultra-small, integrated solutions for a wide range of power requirements and applications.

E-FUSE & LOAD SWITCHES

ELECTRONIC FUSES (INTEGRATED HOT-SWAP SWITCHES)

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	Notes	Package
MP5073	0.5	5.5	2	2	Active High	-	Yes	Programmable Current Limit, PG, Slew Rate Control	QFN12 (2x2)
MP5083	0.5	5.5	2	2	Active High	-	Yes	5% Current Monitoring (From 0.6A-Full Load), PG, Slew Rate Control	QFN12 (2x2)
MP6219	2.7	5.5	2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-2A Programmable Current Limit, 1.4ms Turn-On Time	SOIC8E
MP5002	2.5	6	3	Prog.	Active High	Thermal Fault = Tri-State	No	3.3V, 56mΩ Rds(on), Programmable Current Limit with Built-In Protection and Fault Indication with Slew-Rate Control	QFN10 (3x3)
MP5003	2.5	6	3	Prog.	Active High	Thermal Fault = Tri-State	No	3.3V, 44mΩ Rds(on), Programmable Current Limit with Slew-Rate Control & Automatic Start-Up after Thermal Protection	QFN10 (3x3)
MP5010A	3	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A, 40mΩ Rds(on), Programmable Current Limit & Slew-Rate Control, 3A/ 2.13A Trip/ Hold Current, 3ms Soft-Start Time	QFN10 (3x3)
MP5010B	3	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A, 40mΩ Rds(on), Programmable Current-Limit & Slew-Rate Control, 4.3A/3A Trip/Hold Current, 2.58ms Soft-Start Time	QFN10 (3x3)
MP5013A	3	18	4.2	Prog.	Active High	Short/Over Current, Under Voltage, Over Voltage, Thermal Shutdown	No	5V, 1A-5A, 36mΩ Rds(on), Programmable Current-Limit & Slew-Rate Control, 5A/ 2.8A Trip/ Hold Current	TSOT23-8
MP5010S	3.6	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A, 40mΩ Rds(on), Programmable Current Limit, p2p NIS5135	QFN10 (3x3)
MP5000S	10	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	1A-5A, 40mΩ Rds(on), Programmable Current Limit & Slew-Rate Control, 5.0A/ 3.7A Trip/ Hold Current, p2p NIS5132	QFN10 (3x3)
MP5000A	10	18	4.2	Prog.	Active High	Thermal Fault = Tri-State	No	Inrush Current Performance Improved Version of MP5000S, p2p NIS5132	QFN10 (3x3)
MP5014A	10	18	4.2	Prog.	Active High	Short/Over Current, Under Voltage, Over Voltage, Thermal Shutdown	No	12V, 1A-5A, 36mΩ Rds(on), Programmable Current Limit with Over-Voltage Clamp and Slew-Rate Control	TSOT23-8
MP5018	4.5	14	5	Prog.	Active High	Thermal Fault = Tri-State	No	Reverse Current Blocking, 1A-5A, 45mΩ Rds(on), Programmable Current Limit	QFN12 (2x3)
MP5017	3	14	5	Prog.	Active High	Thermal Fault = Tri-State	No	3V – 5V, 1A – 5A Current Limit Switch with Over Voltage Clamp and Reverse Block	QFN12(2x3)
MP5077	0.5	5.5	7	7	Active High	-	Yes	Programmable Current Limit, Slew-Rate Control	QFN12 (2x2)
MP5087	0.5	5.5	7	7	Active High	-	Yes	5% Current Monitoring (From 1.5A-Full Load), PG, Slew Rate Control	QFN12 (2x2)
MP5087A	0.5	5.5	7	7	Active High	-	Yes	Programmable Current Limit, Slew Rate Control	QFN12 (2x2)
MP5086	0.5	5.5	7	7	Active High	-	Yes	5% Current Monitoring (From 1.5A-Full Load), NTC Comparator, Open-Drain OTP Indicator	TQFN12 (2x2)
MP5092	0.5	5.5	7.5	7.5	Active High	-	Yes	Programmable Current Limit, Slew-Rate Control, Dual Channel	QFN18 (2x3)
MP5021	8	16	10	Prog. to 15A	Active High	Current Limit, Thermal Shutdown and Damaged MOSFET	Yes	12V, 7mΩ Rds(on) Hot-Swap Protection Device with Current Monitoring	QFN22 (3x5)
MP5021B	4.8	16	10	Prog.	Active High	Current Limit, Thermal Shutdown and Damaged MOSFET	Yes	12V, 7mΩ Rds(on) Hot-Swap Protection Device with Current Monitoring	QFN22 (3x5)
MP5022A	8	16	15	Prog.	Active High	Current Limit, Thermal Shutdown and Damaged MOSFET	Yes	12V, 3mΩ Rds(on) Hot-Swap Protection Device with Current Monitoring and Controlled Ron Mode	QFN22 (3x5)



E-Fuse & Load Switches

MOTOR DRIVERS

BRIDGE RECTIFIER IC

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	R _{ds(on)} (mΩ)	Drain Source Rating (V)	Rise/Fall Time (ns)	Forward Voltage (V)	Reverse Recovery Time (ns)	Leakage Current (μA)	Output Current (A)	Notes	Package	Industrial	AECQ Grade
MP8051	4	16	45	23	25.00	0.4	78	80	1	Integrated 2 MOSFETs and 2 Schottky Diodes, 0.45mm Height	TQFN (3x3)	-	-

FULL-BRIDGE

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Bootstrap Supp (Max) (V)	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn Off/On Delay (ns)	Notes	Package	Industrial	AECQ Grade
MP8042	7.5	24	5	5	5	10	10	54/37	Dual-Channel Power Half-Bridge Driver	TSSOP20E	-	-
MP8049	5	26	-	5.5	5.5	5	5	30/30	Quad-Channel Power Half-Bridge Driver	QFN40 (5x5)	-	-

HALF-BRIDGE

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Bootstrap Supp (Max) (V)	Peak Pull-Up Current (A)	Peak Pull-Down Current (A)	Rise Time (ns)	Fall Time (ns)	Turn Off/On Delay (ns)	Notes	Package	Industrial	AECQ Grade
MP18021	9	16	100	1.5	2.5	12	9	16	High-Frequency, N-MOSFET Half-Bridge Gate Driver with 1ns Matching Delay, P2P HIP2100, MIC4103/4, MAX5062, UCC27200, and LM5100/1	SOIC8E	-	-
MP18024	9	16	100	2.6	4.5	15	12	20	High-Frequency, Half-Bridge Gate Driver	SOIC8E	-	-
MP1906	10	16	80	0.4	1	50	30	80	Half-Bridge Gate Driver, Including Input Signal Overlap Protection and Under-Voltage Lockout for Both Channels	SOIC8E	-	-
MP1907	6	18	100	1.5	2.5	12	9	20	High-Frequency, Half-Bridge Gate Driver, Incl Input Signal Overlap Protection and UVLO Latch Function	QFN10 (3x3)	-	-
MP18021A	9	18	100	1.5	2.5	12	9	16	High-Frequency, Half-Bridge Gate Driver, Including New Package to MP18021, Consumer Grade	SOIC8E QFN8 (3x3)	✓	-
MPQ8039	7.5	25	5	9.0	9	20	20	70	Integrated Half-Bridge and Driver	SOIC8E	✓	-
MP8040	7.5	25	5	9.0	9	20	20	70	Integrated Half-Bridge and Driver	SOIC8E	-	-
MP8044	7.5	25	-	-	-	-	-	-	Dual-Channel Power Half-Bridge	TSSOP20F	-	-

BRUSHLESS DC MOTOR DRIVERS

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (mA)	V _{HB} (V)	I _Q (mA)	Type	Notes	Package	Industrial	AECQ Grade
MP6505	4.5	16	400	1.2	1.4	Single-Phase	Brushless DC Motor Driver w/ IOVP, OCP, Built-In Locked-Rotor Protection	TSSOP16 (5x6.4) QFN16 (3x3)	-	-
MP6510	4.5	16	1200	1.2	1.4	Single-Phase	Brushless DC Motor Driver w/ IOVP, OCP, Built-In Locked-Rotor Protection	TSSOP16 (5x6.4)	-	-
MP6536	5	26	5500	-	2.2	Three-Phase	Three-Channel Half-Bridge Driver	QFN40(5x5)	-	-
MP6530	5	60	800	-	0.95	Three-Phase	3-Phase Brushless DC Pre-Driver	QFN28(4x4), TSSOP28EP	-	-
MP6532	5	60	800	-	0.95	Three-Phase	3-Phase Brushless DC Pre-Driver with Hull Input	QFN28(4x4), TSSOP28EP	-	-

STEPPER DC MOTOR DRIVERS

Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _{OUT} (mA)	V _{HB} (V)	I _Q (mA)	Type	Notes	Package	Industrial	AECQ Grade
MP6506	2.7	15	500	-	1.1	-	Bipolar Stepper-Motor Driver with Integrated MOSFETs	QFN16 (3x3)	-	-
MP6507	2.7	15	700	-	1.1	-	Bipolar Stepper-Motor Driver with Integrated MOSFETs	TSSOP16 (5x6.4) QFN16 (3x3)	-	-
MP6501A	8.5	35	2500	-	7	-	Bipolar Stepper-Motor Driver with Integrated MOSFETs	TSSOP28EP	-	-
MP6508	2.7	18	1200	-	1.6	-	Bipolar Stepper-Motor Driver with Integrated MOSFETs	TSSOP16EP QFN16 (4x4)	-	-
MP6509	2.7	18	1200	-	1.6	-	Bipolar Stepper-Motor Driver with Integrated MOSFETs and Current Attenuation	TSSOP20EP	-	-
MP6518	8.5	35	1500	-	7	-	Bipolar Stepper-Motor Driver with Integrated MOSFETs	TSSOP28EP	-	-

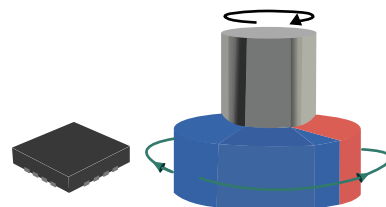
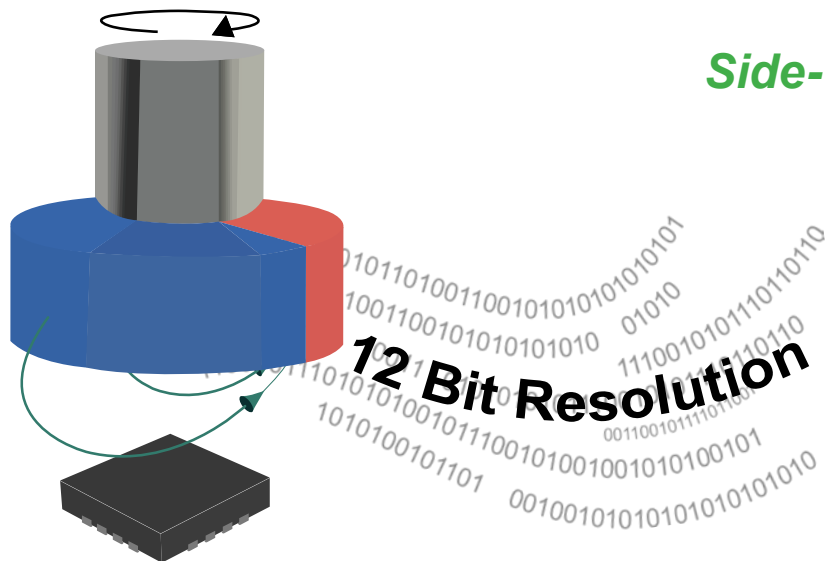


MAGNETIC SENSORS									
MAGALPHA SERIES									
Part Number	Resolution	Interface	Output	Supply Voltage	Sensing Range	Temperature Range	Side-Shaft Mounting Capability	Notes	Package
MA100	8-Bit	SPI	Digital and UVW	3V-3.6V	30 mT-No Upper Limit	-40°-125°	Yes	Angular Sensor for 3-Phase Brushless Motor Commutation with Side-Shaft Positioning Capability	QFN16 (3x3)
MA120	8-Bit	SPI	Digital and UVW	3V-3.6V	30 mT-No Upper Limit	-40°-125°	No	Angular Sensor for 3-Phase Brushless Motor Commutation	QFN16 (3x3)
MA300	12-Bit	SPI	Digital, UVW, and ABZ	3V-3.6V	30 mT-No Upper Limit	-40°-125°	Yes	Angular Sensor for 3-Phase Brushless Motor Commutation and Position Control with Side-Shaft Positioning Capability	QFN16 (3x3)
MA700	12-Bit	SPI	Digital and ABZ	3V-3.6V	30 mT-No Upper Limit	-40°-125°	Yes	Angular Sensor for Position Control with Side-Shaft Positioning Capability	QFN16 (3x3)
MA750	12-Bit	SPI	Digital and PWM	3V-3.6V	30 mT-No Upper Limit	-40°-125°	No	Contactless Turning Knob Sensor	QFN16 (3x3)

High Accuracy, High Speed Position Sensors!

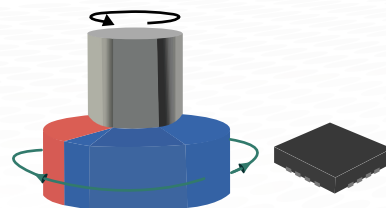
MagAlpha Series

Side-Shaft Capabilities



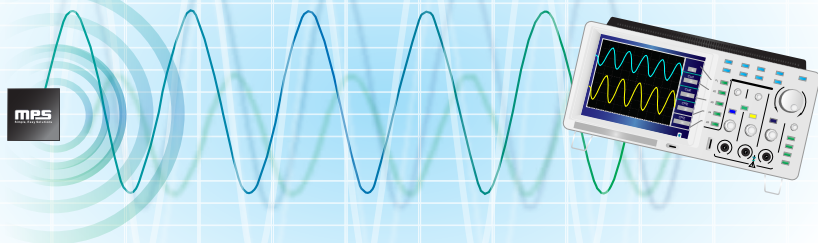
MA300

Eliminates Optical Encoders!



PRECISION ANALOG									
ANALOG SWITCH									
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	Channels	T _{ON} (ns)	T _{OFF} (ns)	R _{ON} (Max) (Ω)	Notes		Package
MP2735	1.65	5.5	2	29	23	0.45	Low-Voltage Dual SPDT Analog Switch		QFN10 (1.4x1.8)
MP2736	1.65	5.5	2	29	23	0.45	Low-Voltage Dual SPDT Analog Switch with EN Function		QFN10 (1.4x1.8)
HIGH-SIDE CURRENT SENSE AMPLIFIERS									
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	I _O (Typ) (μA)	PSRR (%/V)	Offset Voltage (mV)	Notes			Package
MP8110	2.5	40	12	0.05	0.5	High-Side Current Sense			SOIC8 MSOP8
OPERATIONAL AMPLIFIERS									
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	GBW (kHz)	I _O (Typ) (μA)	PSRR (dB)	Slew Rate (V/μs)	Offset Voltage (mV)	Notes	Package
MP8102	1.8	5.5	200	7.5	80	0.1	1	Ultra-Low Power 1.8V, 600kHz Op Amp	TSOT23-5
MP8101	1.8	5.5	400	11	80	0.2	1	Ultra-Low Power 1.8V, 400kHz Op Amp	TSOT23-5
MP8103	1.8	5.5	200	14	80	0.1	1	Dual Ultra-Low Power 1.8V, 600kHz Op Amp	MSOP8
MP8104	1.8	5.5	400	11	80	0.2	1	Ultra-Low Power 1.8V, 400kHz Op Amp w/ Industry Standard Pin Out	TSOT23-5
MP5120	3.2	18	14000	1600	85	45	2	Single-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSOT-5
MP5220	3.2	18	14000	3200	85	45	2	Dual-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	MSOP-8
MP5420	3.2	18	14000	6400	85	45	2	Quad-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSSOP-14
MP5121	3.2	20	14000	1600	85	45	2	Single-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSOT-5
MP5221	3.2	20	14000	3200	85	45	2	Dual-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	MSOP-8
MP5421	3.2	20	14000	6400	85	45	2	Quad-Channel, High-Speed, High-Voltage Rail-to-Rail Input-Output	TSSOP-14
MP8130	2.7	36	100	10	80	0.1	1	Ultra-Low Power 36V, 200kHz, High-Voltage Op Amp	TSOT23-5
VOLTAGE REFERENCE									
Part Number	V _{IN} (Min) (V)	V _{IN} (Max) (V)	V _{OUT} (V)	Initial Acc (%)	Operating Current (mA)	Z _{OUT} (Ω)	Description	Notes	Package
MP8201	1.2	12	1.2 - 10	0.5	60μA to 20mA	1	1.0V Shunt Reference	Precision Adjustable Shunt Voltage Regulator	SOT23
MP8200	1	12	1	1	100μA to 10mA	0.5	1.0V Shunt Reference	Precision Shunt Reference	SOT23

Precision Analog



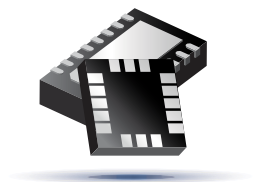
MPS offers low-power consumption, high-speed solutions for your precision analog needs!

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#### 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)	QW	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#### 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	

Simple, Easy Solutions



PRODUCT SELECTOR GUIDE (1H2016)

Corporate Headquarters

79 Great Oaks Blvd.
San Jose, CA 95119
USA
Tel: +1 408-826-0600
usinfo@monolithicpower.com

MPS China

Chengdu
#8 Kexing Road
West Park of Export Processing Zone,
West High-Tech Zone
Chengdu, Sichuan, China 611731 P.R.C.
Tel: +86 28-8730-3000
china-cd@monolithicpower.com

Hangzhou

15th, 16th Floor, Tower D,
Tiantang Software Park,
No. 3 Xidoumen Road
Hangzhou, Zhejiang Province,
China 310012 P.R.C.
Tel: +86 571-8981-8588
china-hz@monolithicpower.com

Shanghai

Room 01, 35 Floor,
International Corporate City, No. 3000
Zhongshan North Road
Shanghai, China 200063 P.R.C.
Tel: +86 21-2225-1700
china-sh@monolithicpower.com

Shenzhen

Room 1501, 1513, Coastal City
(West Tower) Hai De San Dao,
Nanshan District,
Shenzhen, China 518040 P.R.C.
Tel: +86 755-3688-5818
china-sz@monolithicpower.com

MPS Taiwan

8F, No. 77
Nan-King East Rd., Sec. 3
Taipei 104, Taiwan, R.O.C.
Tel: +886 2-2504-0656
taiwaninfo@monolithicpower.com

MPS Korea

B-604, Pangyo InnoValley 621,
Sampyeong-Dong, Bundang-Gu,
Seongnam City, Gyeonggi-Do,
463-400 Korea
Tel: +82 2-598-2307
koreainfo@monolithicpower.com

MPS Japan GK

Shinjuku Mitsui Building II, Room 903
3-2-11 Nishishinjuku, Shinjuku-Ku
Tokyo, 160-0023, Japan
Tel: +81 3-5989-0885
japaninfo@monolithicpower.com

MPS Europe

Centre d'Affaires Concorde
1080 chemin de la Croix Verte
38330 Montbonnot
France
Tel: +33 684-138-570
europeinfo@monolithicpower.com

MPS Tech Switzerland Sàrl

Av. du Mont-Blanc 31
1196 Gland
Switzerland
Tel: +41 22-364-6350
europeinfo@monolithicpower.com



Scan QR code for more info



Simple, Easy Solutions

www.monolithicpower.com

