SWITCHING REGULATORS | DC/DC POWER CONVERSION

CPU Core (Controllers)

Maximum Operating Input Voltage < 55V

Part Number	VCC (Min) (V)	VCC (Max) (V)	IQ (Typ) (mA)	Shutdown (Typ) (mA)	FSW (MHz)	Soft Start	Reg. Output Phase	Package	Notes
MP2953B	4.75	5.25	18	1	0.2-1	Internal	6	QFN40 (5x5)	PMBus Interface, VR12.5
MP2930	4.75	5.25	18	14	0.08-1	External	4	QFN40 (6x6)	8 bit DAC Code, VR10, VR11
MP2932	4.75	5.25	18	14	0.08-1	External	6	QFN48 (6x6)	8 bit DAC Code, VR10, VR11
MP2935	4.5	5.25	8	0.05	0.2-2	Internal	4	QFN40 (6x6)	VR12.5
MP2939	3.2	3.4	8	0.05	0.3-3	Internal	4	QFN48 (6x6)	1+2+1 Phase, IMVP8

CPU Core Power (Intelli-Phase)

Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (Max) (A)	ISW Limit (Typ) (A)	ISD (Typ) (mA)	FSW (MHz)	PWM Logic (V)	Package
MP86901A	4.5	26	12	25	0.03	0.1-2	3.5	TQFN13 (3x3)
MP86910B	4.5	26	20	35	0.03	0.1-2	3.5	TQFN21 (3x4)
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)

Step-Down Converters (Buck)

Maximum Operating Input Voltage 1.5V ≤ VIN ≤ 6V

	Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (Max) (A)	IQ (Typ) (µA)	VFB (Typ) (V)	FSW (MHz)	Power Good	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Package	Notes
New	MP2141N	2.3	5.5	1	11	0.6	2.2	✓	✓	✓	✓	SOT563 (1.6x1.6)	Output Discharge
	MP2148	2.3	5.5	1	10	0.6	2.2	✓	✓	✓	✓	QFN6 (1x1.5)	High Switching Frequency, Ultra-Small Package
	MP21148	2.3	5.5	1	500	0.6	2.4	✓		✓	✓	QFN6 (1x1.5)	Forced CCM Mode, Low Ripple Across Entire Load Range
	MP2149	2.7	6	1 (2x)	45	0.608	1		✓			TSOT23-8	Dual Channel
	MP2160	2.7	6	1.2	20	0.6	3.5	✓	✓	✓	✓	QFN8 (2x1.5)	3.5MHz Switching Frequency
	MP2161A	2.5	6	2	20	0.6	1.5	✓	✓	✓	✓	TSOT23-8	1.5% VFB Accuracy, Good Load Regulation
	MP2162A	2.5	6	2	20	0.6	1.5	✓	✓	✓	✓	QFN8 (2x1.5)	1.5% VFB Accuracy, Good Load Regulation
	MP2122	2.7	6	2 (2x)	45	0.608	1		✓		✓	TSOT23-8	Dual Channel, Industrial Grade

Step-Down Converters (Buck)

Maximum Operating Input Voltage 1.5V ≤ VIN ≤ 6V

Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (Max) (A)	IQ (Typ) (µA)	VFB (Typ) (V)	FSW (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Industrial	Package	Notes
MP2143	2.5	5.5	3	40	0.6	1.2	✓		✓	✓	✓	✓	TSOT23-8	Output Discharge
MP2143H	2.5	5.5	3		0.6	2	✓			✓	✓	✓	QFN10 (2x3)	Forced CCM, Output Discharge
MP2187	2.5	5.5	3 (2x)	80	0.6	1.2	✓		✓	✓	✓		QFN16 (2.2x2.6)	Input Voltage Failure Indicator, Dual Output, Output Discharge
MP2188	2.5	5.5	3 (2x)	80	0.6	1.2	✓		✓	✓	✓		QFN16 (2.2x2.6)	Dual Output, Output Discharge
MP2131	2.7	5.5	4	20	0.6	1.2	✓		✓	✓	✓		QFN12 (2x2)	Output Discharge
MP2147	2.8	5.5	4	40	0.6	1.2	✓		✓	✓	✓		QFN12 (2×3)	External Mode and VCON Control, Output Discharge
MP2145	2.8	5.5	6	40	0.6	1.2	✓		✓	✓			QFN12 (2x3)	Output Discharge, PWM/PFM Mode and Dynamic Voltage Scaling
MPQ8616-6	1.5	6	6	1050	0.61	Prog.	✓	✓		✓		✓	QFN14 (3x4)	CCM, Non-Latch OVP and OCP
MPQ8616-12	1.5	6	12	1050	0.61	Prog.	✓	✓		✓		✓	QFN14 (3x4)	CCM, Non-Latch OVP and OCP
MPQ8612-12	1.5	6	12	1100	0.608	Prog.	✓	✓	✓	✓		✓	QFN14 (3x4)	DCM, Non-Latch OVP and OCP
MPQ8612-16	1.5	6	16	1000	0.61	Prog.	✓	✓	✓	✓		✓	QFN17 (4x4)	DCM, Non-Latch OVP and OCP
MPQ8612-20	1.5	6	20	1000	0.61	Prog.	✓	✓	✓	✓		✓	QFN17 (4x4)	DCM, Non-Latch OVP and OCP

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Step-Down Converters (Buck)

Maximum Operating Input Voltage ≤ 28V

	Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (Max) (A)	IQ (Typ) (mA)	VFB (Typ) (V)	FSW (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	100% Duty Cycle	Package	Notes
	MP2313	4.5	24	1	0.2	0.8	2			✓			TSOT23-8	High FSW, Light Load Mode (AAM Pin)
	MP2388	4.5	21	1	0.2	0.798	2			✓			QFN8 (1.5x2.5)	Small Package, Ultra-Thin Profile Option
	MP2317	7.5	26	1	0.15	0.791	0.6			✓			TSOT23-6	Low Current Limit Version of MP2314, Optimized EMI
	MP2228	6	16	2	0.55	0.807	0.8		✓	✓			TSOT23-8	External Light-Load Pin (AAM)
	MP1498	4.5	16	2	0.8	0.807	1.4		✓		✓		TSOT23-8	1.4MHz High FSW
New	MP1476	4.2	18	2	0.18	0.807	0.8			✓		✓	SOT563	Fast Load Transient Response, Over-Current Protection and Hiccup
	MP2318	4.5	24	2	0.2	0.8	2			✓			TSOT23-8	High FSW, Light-Load Mode (AAM Pin)
	MP2314S	4.5	24	2	0.12	0.791	0.5			✓			TSOT23-8	Next Gen Version of MP2314, OVP Function
	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.	✓	✓	✓		✓	QFN14 (2x3)	Forced PWM or Auto PFM/PWM Mode Selectable
New	MP2319	4.5	18	3	0.27	0.8	0.65	✓		✓		✓	TSOT23-8	Output Discharge, Auto Retry OVP
New	MP1477	4.2	17	3	0.18	0.798	0.8			✓		✓	SOT563 (1.6x1.6)	Fast Load Transient Response, Over-Current Protection and Hiccup
	MP2240	6	16	3	0.75	0.807	0.8		✓	✓			TSOT23-8	Light-Load Mode (AAM Pin)
	MP2233	4.5	16	3	0.6	0.807	1.4		✓				TSOT23-8	1.4MHz High FSW
	MP2316	4	19	3	0.04	0.6	Prog.	✓	✓	✓	✓	✓	QFN14 (2x3)	High Efficiency
	MP2315	4.5	24	3	0.18	0.791	0.5			✓	✓		TSOT23-8	AAM (Light-Load Mode), Industrial Grade
	MP2326	3.9	19	4	0.04	0.6	Prog.	✓	✓	✓	✓	✓	QFN14 (2x3)	Selectable PFM/PWM Mode
	MP9151	4.5	20	4	0.7	0.795	Prog.	✓	✓	✓			QFN14 (2x3)	PG and Ext. SS

Step-Down Converters (Buck)

Maximum Operating Input Voltage ≤ 28V

	Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (Max) (A)	IQ (Typ) (mA)	VFB (Typ) (V)	FSW (MHz)	Power Good	External Soft Start	Light-Load Efficiency	Constant-On-Time (COT)	Industrial	Package	Notes
	MP8715	4.5	21	4	0.66	0.805	0.5	✓	✓				QFN14 (3x4) SOIC8E	100% Duty Cycle, Ext. Frequency Sync
	MP1499	4.5	16	4	0.6	0.807	0.5		✓	✓			QFN10 (2x3)	Ext. Frequency Sync
	MP2225	4.5	18	5	0.32	0.6	0.5			✓			TSOT23-8	High-Efficiency, 5A Peak, Ext. Freq Sync
	MP8760D	4.5	18	6	0.86	0.611	Prog.	✓	✓	✓			QFN16 (3x4)	Output Discharge
	MPQ8632-6	2.5	18	6	0.86	0.611	Prog.	✓	✓	✓		✓	QFN16 (3x4)	DCM, Non-Latch OVP
	MP2229	4.5	21	6	0.4	0.6	Prog.		✓	✓			QFN14 (3x3)	Current Mode, Exteranl Freq. Sync
New	MP8756	4.5	26	6	0.117	0.6	0.7	✓		✓			QFN12 (2x3)	USM, PFM/PWM Selection, Hiccup Mode OCP and UVP, Output Discharge
New	MP8759	4.5	26	8	0.117	0.6	0.7	✓		✓			QFN12 (2x3)	USM, PFM/PWM Selection, Hiccup Mode OCP and UVP, Output Discharge
	MPQ8636H-10	4.5	18	10	0.86	0.611	Prog.	✓	✓		✓	✓	QFN16 (3x4)	CCM, Non-Latch OVP
	MPQ8636-10	4.5	18	10	0.86	0.611	Prog.	✓	✓		✓	✓	QFN16 (3x4)	CCM, Latch-Off OVP
	MPQ8636A-10	4.5	18	10	0.86	0.611	Prog.	✓	✓		✓	✓	QFN16 (3x4)	CCM, Latch-Off OVP/OCP
	MPQ8632H-10	2.5	18	10	0.86	0.611	Prog.	✓	✓	✓	✓	✓	QFN16 (3x4)	DCM, Latch-Off OVP
	MPQ8632-10	2.5	18	10	0.86	0.611	Prog.	✓	✓	✓	✓	✓	QFN16 (3x4)	DCM, Non-Latch OVP
	MP8758H	4.5	22	10	0.19	0.604	0.5	✓		✓	✓		QFN21 (3x4)	Thermal Auto-Retry, Hiccup Mode OCP and UVP, PFM/PWM Mode
New	MP8712	3	18	12	0.42	0.6	0.5	✓	✓	✓	✓		QFN14 (3x4)	15A Peak Output Current, Auto-Retry Input and Output Over-Voltage Protection
	MP8763D	4.5	18	12	0.86	0.611	Prog.	✓	✓	✓	✓		QFN16 (3x4)	High Efficiency, Output Discharge
	MPQ8632-12	2.5	18	12	0.86	0.611	Prog.	✓	✓	✓	✓		QFN16 (3x4)	DCM, Non-Latch OVP
	MPQ8632-15	2.5	18	15	0.86	0.611	Prog.	✓	✓	✓	✓	✓	QFN29 (5x4)	DCM, Non-Latch OVP
	MP38876	4.5	28	15	1	0.81	0.4	✓	✓				QFN20 (3x4)	Synchronous Gate Driver, OCP Latch-Off, External Freq. Sync
	MPQ8632-20	2.5	18	20	0.86	0.611	Prog.	✓	✓	✓	✓	✓	QFN29 (5x4)	DCM, Non-Latch OVP
	MPQ8636-20	4.5	18	20	1	0.611	Prog.	✓	✓		✓	✓	QFN29 (5x4)	CCM, Non-Latch OVP
	MPQ8636H-20	4.5	18	20	1	0.611	Prog.	✓	✓		✓	✓	QFN29 (5x4)	CCM, Hiccup OVP

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Step-Down Converters (Buck)

Maximum Operating Input Voltage < 55V

	Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (Max) (A)	IQ (Typ) (mA)	VFB (Typ) (V)	FSW (kHz)	Power Good	Ext. Soft Start	Light-Load Eff.	Sync Rect.	Industrial	Package	Notes
	MP4410	4.5	36	0.1	0.02	1	Prog.	✓			✓		QFN10 (3x3)	Low IQ
	MP4568	4.5	45	0.1	0.02	1	Prog.		✓		✓	✓	QFN10 (3x3)	Programmable Peak Current Limit
	MP4569	4.5	75	0.3	0.02	1	1000	✓	✓		✓	✓	QFN10 (3x3) SOIC8E	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			✓			QFN8 (2x3)	High Light-Load Efficiency
	MPQ2451	3.3	36	0.6	0.13	0.794	2000			✓		✓	SOT23-6L QFN-6L	Light-Efficiency
	MP2454	3.3	36	0.6	0.06	0.8	2300	✓	✓			✓	QFN10 (3x3)	External Frequency Sync
Sampling	MP2269	3.3	30	1	0.012	0.8	Prog.	✓	✓	✓	✓		QFN15 (2x3)	Low IQ, Low Input Voltage, Small Package
	MPQ4458	3.8	36	1	0.12	0.8	Prog.			✓			TQFN10 (3x3)	Integrated High-Side MOSFET
	MPQ4558	3.8	55	1	0.14	0.8	Prog.			✓		✓	QFN10 (3x3) SOIC8E	Current Mode Control
	MPQ4459	3.8	36	1.5	0.12	0.8	Prog.			✓		✓	TQFN10 (3x3)	Current Mode Control
	MPQ2490	4.5	36	1.5	0.5	0.805	700	✓	✓			✓	SOIC8	Programmable Output-Current Limit
	MPQ4561	3.8	55	1.5	0.14	0.795	Prog.		✓	✓			QFN10 (3x3)	Internal High-Side MOSFET
New	MP4425M	4	36	1.5	0.5	0.2	2200					✓	QFN13 (2.5x3)	PWM Dimming and OCP/SCP Protection, External Frequency Sync
	MP9942/A	4	30	2	0.5	0.792	410	✓		✓	✓		TSOT23-8	Forced CCM, Consumer Grade, External Frequency Sync
	MP4420H	4	36	2	0.5	0.792	410	✓			✓	✓	TSOT23-8	External Frequency Sync
	MPQ4560	3.8	55	2	0.14	0.797	Prog.			✓		✓	QFN10 (3x3) SOIC8E	AEC-Q
	MP2499	4.5	55	2	0.5	0.8	100		✓				SOIC16	Programmable Output Current
	MPQ4460	3.8	36	2.5	0.12	0.8	Prog.			✓			QFN10 (3x3)	Programmable Output Current
	MP2560	4.5	42	2.5	0.12	0.8	Prog.			✓			QFN10 (3x3) SOIC8E	Current Mode Control
	MP2565	4.5	50	2.5	0.12	0.8	Prog.			✓			QFN10 (3x3) SOIC8E	Integrated Internal High-Side
	MP2496M	7	36	2.5	1.6		Selec.						QFN26 (4x4)	Integrated Smart USB Charging Port, Auto Detect, Cable Compensation
	MP9943/A	4	30	3	0.5	0.79	410	✓		✓	✓		QFN8 (3x3)	Consumer Grade, 36V Max, External Frequency Sync
	MP4423H	4	36	3	0.5	0.79	410	✓			✓	✓	QFN8 (3x3)	External Frequency Sync
	MP4570	4.5	55	3	0.45	1	Prog.	✓	✓	✓	✓	✓	TSSOP-20 EP	External Frequency Sync
Sampling	MP2263	3.3	30	3	0.012	0.8	Prog.	✓	✓	✓	✓		QFN15 (2x3)	Low IQ, Low Input Voltage, Small Package
	MPQ4462	3.8	36	3.5	0.12	0.792	Prog.				✓	✓	QFN10 (3x3) SOIC8E	AEC-Q
	MP4473	4.5	36	3.5	0.5	0.815	Prog.	✓	✓	✓	✓	✓	QFN20 (3x4)	High Frequency
	MP28490	4.5	30	5	0.9	0.808	420	✓					SOIC8E	External Frequency Sync
	MP8675	4.5	42	6	0.9	0.808	420				✓		SOIC8E	Synchronizable Gate Driver, External Frequency Sync

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Step-Down Controllers

Part Number	VIN (Min) (V)	VIN (Max) (V)	IQ (Typ) (mA)	VFB (V)	FSW (kHz)	Soft Start	Package	Notes
MP2910	5	12	0.6	0.8	300	Internal	SOIC14 SOIC8E	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	External	MSOP10	Ideal for Applications Greater than 15A
MP2908A	4	60	0.75	0.8	Adj. 100 to 1000	External	TSSOP-20 EP QFN20 (3x4)	Industrial Grade, PG, Programmable CCM, AAM, Pulse-Skipping Mode

Step-Up Charge Pump

Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (A)	IQ (Typ) (mA)	FSW (kHz)	Industrial	Package	Notes
MP9361	2.8	5	0.11	2	1350	✔	TSOT23-6	Fixed 5VOUT, High-Performance, Regulated, Internal Soft Start, OCP, SCP, In-Rush Current Limit
MP9218	2.8	5	0.11	2	1350		QFN6 (2x2)	Fixed 5VOUT, High-Performance, Regulated, Small QFN2x2 Package

Step-Up Controllers

Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (A)	FSW (kHz)	IQ (Typ) (mA)	VFB (Typ) (V)	Soft Start	Package	Notes
MP3910	5	35	1	Adj. 30 to 400	0.288	1.237	External	MSOP10	Supports Pulse-Skipping Mode at Light Load, 0.95 Max Duty Cycle
MP3910A	9	14	1	Adj. 30 to 400	0.288	1.237	External	SOIC8E	Supports Pulse-Skipping Mode at Light Load, 0.95 Max Duty Cycle
MP6002	10	100	3	550	1	1.21	Internal	SOIC8E	Flyback/Forward DC/DC Converter, 30W, Integrated 150V Power Switch
MP6001	10	100	2	550	1	1.21	Internal	SOIC8E	Flyback/Forward DC/DC Converter, 15W, Integrated 150V Power Switch
MP6003	10	100		550	1	1.21	Internal	SOIC8E	Monolithic Flyback/SEPIC DC/DC Converter

Step-Up Converters (Boost)

Part Number	VIN (Min) (V)	VIN (Max) (V)	ISW Limit (Typ) (A)	IQ (Typ) (mA)	VOUT Range (V)	FSW (kHz)	Package	Notes
MP3209	2.5	6	0.35	0.64	3 to 22	1400	TSOT23-5 UTQFN8 (2x2)	Internal Comp, Tiny Inductors and Capacitors Can be Used
MP3416	0.8	5.5	1	0.0085	1.8 to 5.5	1500	TSOT23-8 QFN8 (1.5x2.2)	Output Disconnect, Down Mode, Sync
MP3217	2.5	6	0.5	0.46	Vin to 36	670	TSOT23-6	Cycle-by-Cycle Over-Current Protection, UVLO, Thermal Shutdown, P2P with MAX5025-5028
MP1400	2.7	7	0.6	0.2	-0.9 to -6	1500	CSP8 (0.8x1.6)	Output Adjustable from -0.9V to -6V, Very Small Size
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	QFN16 (3x3)	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
MP3410	1.8	6	1.3	0.36	2.5 to 6	550	TSOT23-5	Output Disconnect, Sync
MP3415	1.8	5.5	4.2	0.022	1.98 to 5.5	1000	QFN12 (2x2)	Output Disconnect, Sync
MP3414	0.6	4	1.8	0.035	1.8 to 4	1000	TSOT23-8	Output Disconnect, Sync
MP1541	2.5	6	1.9	0.64	3 to 22	1300	TSOT23-5	Internal Current Limit

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Step-Up Converters (Boost)

Part Number	VIN (Min) (V)	VIN (Max) (V)	ISW Limit (Typ) (A)	IQ (Typ) (mA)	VOUT Range (V)	FSW (kHz)	Package	Notes
MP1542	2.5	22	2.6	0.7	3 to 22	700/1300	MSOP8	Programmable 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	MSOP8E	Programmable Soft Start
MP1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN16 (3x3) TSSOP16	Triple Output Charge Pump, LDO for TFT Bias
MPQ1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN16 (3x3)	Triple Output Charge Pump, LDO for TFT Bias, Industrial Grade
MPQ1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN16 (3x3)	Triple Output Charge Pump, LDO for TFT Bias, Industrial Grade
MPQ1530	2.7	5.5	3.6	1.3	2.7 to 22	1400	QFN16 (3x3)	Triple Output Charge Pump, LDO for TFT Bias, Industrial Grade
MP3425	3.1	22	5	0.65	3.1 to 55	Prog. 300 to 2000	QFN14 (3x4)	Programmable UVLO and EN Hysteresis, Industrial Grade
MP3422	1.9	5.5	6.5	0.043	2.5 to5.5	600	QFN14 (3x4)	Output Disconnect, Sync
MP3421	1.9	5.5	5.5	0.043	2.5 to 5.5	600	QFN14 (2x2)	Small Size, Output Disconnect, Sync
MP3426	3.2	22	8.5	0.65	3.2 to 35	Prog. 300 to 2000	QFN14 (3x4)	Programmable UVLO, Soft Start, UVLO Hysteresis, Industrial Grade
MP3423	1.9	5.5	9	0.043	2.5 to 5.5	600	QFN14 (2x2)	Small Size, Output Disconnect, Sync
MP3428A	3	20	22	0.6	3 to 22	600	QFN22 (3x4)	Input Disconnect Function, External Soft Start, Programmable UVLO and Hysteresis, Sync

Step-Up Energy Storage (Dying GASP) / Power Back-Up Manager PMICs

	Part Number	VIN (Min) (V)	VIN (Max) (V)	Vstrg (Max) (V)	I Limit Charging (A)	I Limit Dumping (A)	IQ (Typ) (mA)	VFB (V)	Package	Notes
	MP5505A	2.7	7	30	0.5	5	2 (Max)	0.79	QFN20 (3x4)	Programmable Storage, Release Voltage, Hot-Swap Management Unit for SATA/M.2 PCIe
New	MP5507E	2.7	7	30	0.5	5	2	0.79	QFN16 (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	QFN28 (4x5)	Programmable Storage and Release Voltage, Hot-Swap Management Unit for PCIe

Step-Up LNB

Part Number	VIN (Min) (V)	VIN (Max) (V)	Standard	IOUT (Max) (A)	22kHz Tone Signal Generated	Package	Notes
MP8124	8	14	DiSEqC™ 1.x	0.5	Internal	QFN14 (2x3)	Boost Converter with Internal Switch, Low-Noise LDO Output, Line-Drop Compensation, Selectable VOUT Compensation, Adj. Output SS

SWITCHING REGULATORS | DC/DC POWER CONVERSION

Buck/Boost

	Part Number	VIN (Min) (V)	VIN (Max) (V)	ISW Limit (Typ) (A)	IQ (Typ) (mA)	VFB (V)	FSW (kHz)	Sync	Package	Notes
	MP2155	2	5.5	2.2	0.08	0.496	1000	✓	QFN10 (3x3)	Power-Save Mode, Load Disconnect
	MP28163	2	5.5	2.9	0.07	0.496	1100	✓	QFN10 (3x3)	Power-Save Mode, Load Disconnect
New	MP28164	1.2	5.5	4.2	0.025	0.5	2000	✓	QFN11 (2x3)	Power-Save Mode, Load Disconnect

LDO

	Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (mA)	IQ (Typ) (µA)	Load Reg. (%/mA)	PSRR @ 1kHz (dB)	VFB (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)	QFN8 (2x2)	Dual Fixed Output, P2P RT9012
	MP20043	2.5	5.5	300 (2x)	150		75		60 (IO: 100mA) 180 (IO: 300mA)	TQNF8 (2x2)	Dual Outputs, Programmable with 2-Pin Control Input
	MP2002	1.35	6.5	500	100	0.001	26	0.5	290 (IO: 500mA)	QFN8 (2x3)	Low-Voltage Input, Power Good
	MP8904	2.5	6.5	500	100	0.001	26	0.496	300 (IO: 500mA)	QFN8 (2x3)	Power Good Output, Industrial Grade
	MP20045	2.5	5.5	1000	110	0.0003	56	1.5	140 (IO: 1000mA)	QFN8 (3x3) SOIC8E	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)	QFN8 (3x3)	Industrial Grade
	MP20046	2.7	5.5	2000	75	0.0003	70		210 (IO: 2000mA)	SOIC8E QFN10 (3x3)	High Input/Output Current with Fast Response
	MP20073	1.3	6	2000						MSOP8E	DDR2/3 Termination Regulator
	MP20075	1.3	3.6	3000						MSOP8E	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)	QFN8 (2x3) TSOT23-5	Ideal for Automotive
New	MP2015A	2.5	24	150	3.3	0.005	41	1.215	700 (IO:150mA)	TSOT23-4 QFN6 (2x2) QFN8 (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 Quiescent Current
	MP2005	1	5.5	800	100	0.0005	65	0.5	70 (IO:800mA)	QFN8 (2x3)	Fast Transient, 48dB PSRR @1MHz
	MP2030	1.1	5	3000	220	0.001	32	0.5	150 (IO:3000mA)	QFN10 (3x3) QFN32 (5x5)	Dual Supply, Fast Transient, Bias Supply, Power Good, Current Limit, Internal Thermal Protection

SUPERVISORY | DC/DC POWER CONVERSION

Part Number	VIN (Min) (V)	VIN (Max) (V)	IQ (Typ) (µA)	Threshold Acc (%)	Re-set Threshold Accuracy (%)	Delay Time (ms)	Package	Notes
MP6400	1.8	6	1.6	0.4	1	2.1 to 10000	QFN10 (3x3)	Power-Save Mode, Load Disconnect
MPQ6411	4.8	5.2	N/A	N/A	N/A	N/A	QFN10 (3x3)	Power-Save Mode, Load Disconnect

MOSFET DRIVERS

Half-Bridge Gate Drivers

Part Number	VIN (Min) (V)	VIN (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	SOIC8E	4A, High Frequency
MP1906	10	16	80	0.35	1	50	30	80	80	SOIC8	High Performance
MP1907	4.5	18	100	1.5	2.5	12	9	18	20	QFN10 (3x3)	2.5A, High Frequency
MP18021A	9	18	100	1.5	2.5	12	9	16	16	SOIC8E QFN8 (3x3)	2.5A, High Frequency, Industrial Grade
MP18021	9	18	100	1.5	2.5	12	9	16	16	SOIC8EP QFN8 (3x3)	High Frequency, N-MOSFET, with 1ns Matching Delay

PMIC & MULTIPLE OUTPUTS

Part Number	VIN (Min) (V)	VIN (Max) (V)	VOUT (V)	VFB (V)	ISW Limit (Typ) (A)	FSW (kHz)	Package	Notes
MP5408M	6	36	6	1		Prog.	QFN26 (5x5)	Integrated Smart Dual USB Charging Ports, Auto Detect, Supports USB Type-C 5V at 3A DFP Mode
MP5410	1.8	5.5	10	1.23	10	Variable	QFN16 (3x3)	Low Start-Up Voltage Boost Converter with 4 SPDT Switches

FLYBACKS

Part Number	VIN (Min) (V)	VIN (Max) (V)	ISW Limit (Typ) (A)	IQ (Typ) (mA)	VFB (V)	FSW (kHz)	Package	Notes
MP6004	14	80	2.05	0.38	1.99	10 to 200	QFN14 (3x3)	13W, Integrated 180V Power Switch

PoE PD CONTROLLERS | DC/DC POWER CONVERSION

Part Number	VIN (Min) (V)	VIN (Max) (V)	ISW Limit (Typ) (A)	IQ (Typ) (mA)	VFB (V)	FSW (kHz)	Package	Notes
MP3900	8.6	12	0.2V/Rsense	0.18	0.816	330	MSOP8	Boost Controller 10V Gate Driver
MP6001	4.5	100	2			55 to 550	SOIC8E	15W, Integrated 150V Power Switch
MP6002	10	100	4	1	1.21	55 to 550	SOIC8E	30W, Integrated 150V Power Switch

PoE PD IDENTITY

Part Number	Pass Device	Current Limit (mA)	Thermal Protection	IEEE Detection & Classification	Package	Notes
MP8007	100V, 0.48Ω DMOS	840	Yes	802.3af	QFN28 (4x5)	13W Primary-Side Regulated Flyback without Optocoupler Feedback
MP8004	100V, 1Ω DMOS	420	Yes	802.3af	QFN20 (4x6)	13W PoE PD Interface and PWM Converter
MP8001	100V, 0.8Ω DMOS	420	Yes	802.3af	SOIC8	15W PoE PD Controller

DIGITAL REGULATORS

Synchronous Step-Down Converter with I2C Interface

	Part Number	VIN (Min) (V)	VIN (Max) (V)	IOUT (Max) (A)	IQ (Typ) (mA)	VFB (Typ) (V)	FSW (kHz)	Power Good	External Soft Start	Light-Load Efficiency	Sync. Rectification	Constant-On-Time (COT)	Package	Notes
New	MP8843	2.6	6	3	0.06	0.6	1000 to 2000	✓		✓	✓	✓	QFN12 (2x2)	Prog. VOUT, Power Save Mode
	MP8864	4.5	21	4	0.5	0.6	1600	✓	✓	✓	✓		QFN15 (3x3)	Prog. VOUT, Power Save Mode
	MP8845	2.8	6	5	18	0.6	2200			✓	✓		WLCSP (1.6x2)	Slew Rate, Select. Power Save Mode
	MP8846	4.5	8	6	0.5	0.6	1600	✓	✓	✓	✓		QFN15 (3x3)	Prog. VOUT, Power Save Mode
	MP8865	4.5	21	6	0.5	0.6	1600	✓	✓	✓	✓		QFN15 (3x3)	Prog. VOUT, Power Save Mode
	MP8867	4.5	17	8	0.56	0.6	1500	✓	✓	✓	✓		QFN14 (3x4)	Prog. VOUT, Power Save Mode
	MP8868	4.5	17	10	0.56	0.6	1500	✓	✓	✓	✓		QFN14 (3x4)	Prog. VOUT, Power Save Mode
New	MP8869W	3	18	12	0.42	0.6	500 to 1250	✓	✓	✓	✓	✓	QFN14 (3x4)	Integrated Telemetry, Accuracy Output Voltage/Current, Readback via I²C