Analog and Interface Products

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Analog and Interface Product Selector Guide

Thermal Management • Motor Driver • Interface Peripherals
Power Management • Linear and Mixed Signal • Safety and Security

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Table of Contents

Are You Looking for Complete Analog and Interface Design Solutions?

Microchip's integrated analog technology, peripherals and features are engineered to meet today's demanding design requirements. Our broad spectrum of analog products addresses thermal management, power management, battery management, mixed-signal, linear, interface and safety and security solutions. Combined with Microchip's Intelligent Analog microcontrollers, our extensive analog portfolio can be used in thousands of high-performance design applications in the automotive, communications (wireless), consumer, computing and industrial control markets.

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Microchip Technology's Stand-Alone Analog and Interface Portfolio

Thermal Management
- Temperature Sensors
- Fan Speed Controllers/ Fan Fault Detectors

Motor Drive
- Stepper and DC
- 3Φ Brushless DC Motor Driver

Power Management
- Voltage Regulators
- Charge Pump DC/DC Converters
- Power MOSFET Drivers
- Digitally Enhanced and PWM Controllers
- System Supervisors
- Voltage Detectors
- Li-Ion/Li-Polymer Battery Chargers
- MOSFETs
- High-Voltage Drivers
- USB Port Power Controllers

Linear
- Op Amps
- Instrumentation Amps
- Programmable Gain Amplifiers
- Comparators

Safety and Security
- Photoelectric Smoke Detectors
- Ionization Smoke Detectors
- Ionization Smoke Detector Front Ends
- Piezoelectric Horn Drivers

Mixed-Signal
- A/D Converter Families
- Digital Potentiometers
- D/A Converters
- V/F and F/V Converters
- Energy Measurement ICs
- Current/DC Power ICs
- Voltage References

Interface
- CAN Transceivers/ Controllers
- LIN Transceivers
- Wireless Products
- Serial Peripherals
- Ethernet ICs
- USB ICs
- Real-Time Clock/Calendars

Want a Business Partner, Not Just a Vendor?

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THERMAL MANAGEMENT

THERMAL MANAGEMENT: Temperature Sensors

Part #	Typical Accuracy (°C)	Maximum Accuracy @ 25°C (°C)	Maximum Temperature Range (°C)	Vcc Range (V)	Maximum Supply Current (µA)	Features	Packages
Logic Output Temperature Sensors							
TC6501	±0.5	±3	–55 to +125	+2.7 to +5.5	40	Cross to MAX6501, open-drain	5-pin SOT-23A
TC6502	±0.5	±3	–55 to +125	+2.7 to +5.5	40	Cross to MAX6502, push-pull	5-pin SOT-23A
TC6503	±0.5	±3	–55 to +125	+2.7 to +5.5	40	Cross to MAX6503, open-drain	5-pin SOT-23A
TC6504	±0.5	±3	–55 to +125	+2.7 to +5.5	40	Cross to MAX6504, push-pull	5-pin SOT-23A
TC620	±1	±3	–40 to +125	+4.5 to +18	400	Two resistor-programmable trip points	8-pin PDIP, 8-pin SOIC
TC621	Note 1	Note 1	–40 to +85	+4.5 to +18	400	Requires external thermistor, resistor-programmable trip points	8-pin PDIP, 8-pin SOIC
TC622	±1	±5	–40 to +125	+4.5 to +18	600	Dual output, TO-220 for heat sink mounting, resistor-programmable trip points	8-pin PDIP, 8-pin SOIC, 5-pin TO-220
TC623	±1	±3	–40 to +125	+2.7 to +4.5	250	Two resistor-programmable trip points	8-pin PDIP, 8-pin SOIC
TC624	±1	±5	–40 to +125	+2.7 to +4.5	300	Dual output, resistor-programmable trip points	8-pin PDIP, 8-pin SOIC
MCP9501	±1	±4	–40 to +125	+2.7 to +5.5	40	Active-High, Push-Pull Output, Rising Temperature Switch	5-pin SOT-23
MCP9502	±1	±4	–40 to +125	+2.7 to +5.5	40	Active-Low, Open Drain Output, Rising Temperature Switch	5-pin SOT-23
MCP9503	±1	±4	–40 to +125	+2.7 to +5.5	40	Active-High, Push-Pull Output, Falling Temperature Switch	5-pin SOT-23
MCP9504	±1	±4	–40 to +125	+2.7 to +5.5	40	Active-Low, Open Drain Output, Falling Temperature Switch	5-pin SOT-23
MCP9509	±0.5	NS	–40 to +125	+2.7 to +5.5	50	Resistor-programmable temperature switch	5-pin SOT-23
MCP9510	±0.5	NS	–40 to +125	+2.7 to +5.5	80	Resistor-programmable temperature switch	6-pin SOT-23
Voltage Output Temperature Sensors							
MCP9700	±1	±4	–40 to +125	+2.3 to +5.5	12	Linear Active Thermistor® IC, Temperature slope: 10 mV/°C	3-pin TO-92, 5-pin SC-70, 3-pin SOT-23
MCP9701	±1	±4	–40 to +125	+3.1 to +5.5	12	Linear Active Thermistor IC, Temperature slope: 19.53 mV/°C, cross to MAX6612	3-pin TO-92, 5-pin SC-70, 3-pin SOT-23
MCP9700A	±1	±2	–40 to +125	+2.3 to +5.5	12	Linear Active Thermistor IC, Temperature slope: 10 mV/°C	3-pin TO-92, 5-pin SC-70, 3-pin SOT-23
MCP9701A	±1	±2	–40 to +125	+3.1 to +5.5	12	Linear Active Thermistor IC, Temperature slope: 19.53 mV/°C, cross to MAX6612	3-pin TO-92, 5-pin SC-70, 3-pin SOT-23
TC1046	±0.5	±2	–40 to +125	+2.7 to +4.4	60	High precision temperature-to-voltage converter, 6.25 mV/°C	3-pin SOT-23B
TC1047	±0.5	±2	–40 to +125	+2.7 to +4.4	60	High precision temperature-to-voltage converter, 10 mV/°C	3-pin SOT-23B
TC1047A	±0.5	±2	–40 to +125	+2.5 to +5.5	60	High precision temperature-to-voltage converter, 10 mV/°C	3-pin SOT-23B
Serial Output Temperature Sensors							
MCP9800	±0.5	±1	–55 to +125	+2.7 to +5.5	400	SMBus/I²C compatible interface, 0.0625°C to 0.5°C adj. resolution, Power-saving one-shot temperature measurement	5-pin SOT-23
MCP9801	±0.5	±1	–55 to +125	+2.7 to +5.5	400	SMBus/I²C compatible interface, 0.0625°C to 0.5°C adj. resolution, Power-saving one-shot temperature measurement, multi-drop capability	8-pin MSOP, 8-pin SOIC
MCP9802	±0.5	±1	–55 to +125	+2.7 to +5.5	400	SMBus/I²C compatible interface with time out, 0.0625°C to 0.5°C adj. resolution, Power-saving one-shot temperature measurement	5-pin SOT-23
MCP9803	±0.5	±1	–55 to +125	+2.7 to +5.5	400	SMBus/I²C compatible interface with time out, 0.0625°C to 0.5°C adj. resolution, Power-saving one-shot temperature measurement, Multi-drop capability	8-pin MSOP, 8-pin SOIC
MCP9804	±0.25	±1	–40 to +125	+2.7 to +5.5	400	User programmable temperature limits with alert output, 1°C temp. accuracy from –40°C to +125°C	8-pin MSOP, 8-pin 2 × 3 DFN
MCP9805	±0.5	±1(2)	–20 to +125	+3.0 to +3.6	400	JEDEC-compatible register set, SMbus/I²C compatible interface, Programmable, Shut-down modes and EVENT output	8-pin TSSOP, 8-pin 2 × 3 DFN
MCP9808	±0.25	±0.5	–40 to +125	+2.7 to +5.5	400	0.5°C temperature accuracy from –10°C to +100°C	8-pin 2 × 3 DFN, 8-pin MSOP
MCP9843	±0.5	±1(2)	–20 to +125	+3.0 to +3.6	500	Compliant to JEDEC TS2002 specification	8-pin TSSOP, 8-pin 2 × 3 DFN, 8-pin 2 × 3 TDFN
MCP98242	±0.5	±1(2)	–20 to +125	+3.0 to +3.6	400	Same temperature sensor as MCP9805 plus integrated DDR2 Serial Presence Detect EEPROM	8-pin TSSOP, 8-pin 2 × 3 DFN
MCP98243	±1	±3	–40 to +125	+3.0 to +3.6	500	Serial output temperature sensor with integrated EEPROM	8-pin TSSOP, 8-pin 2 × 3 DFN, 8-pin 2 × 3 TDFN
MCP98244	±0.5	±3	–40 to +125	+1.7 to +3.6	500	Serial output temperature sensor with integrated EEPROM (TES2004)	8-pin 2 × 3 TDFN
MCP9844	±0.5	±3	–40 to +125	+1.7 to +1.9	500	Serial output temperature sensor with integrated EEPROM (TES2004)	8-pin 2 × 3 TDFN
TC77	±0.5	±1	–55 to +125	+2.7 to +5.5	400	SPI-compatible interface, 0.0625°C temperature resolution	5-pin SOT-23A, 8-pin SOIC
TC72	±0.5	±1	–55 to +125	+2.65 to +5.5	400	SPI-compatible interface, Power-saving one-shot temperature measurement, 0.25°C temperature resolution	8-pin MSOP, 8-pin 3 × 3 DFN
TC74	±0.5	±2	–40 to +125	+2.7 to +5.5	350	SMBus/I²C-compatible interface, 1°C temperature resolution	5-pin SOT-23A, 5-pin TO-220
TCN75A	±0.5	±2	–40 to +125	+2.7 to +5.5	500	SMBus/I²C-compatible interface, power-saving one-shot temperature measurement, multi-drop capability, 0.0625°C to 0.5°C adjustable temperature resolution	8-pin MSOP, 8-pin SOIC
TCN75	±0.5	±2	–55 to +125	+2.7 to +5.5	1,000(3)	SMBus/I²C-compatible interface, multi-drop capability, interrupt output, 0.5°C temperature resolution	8-pin MSOP, 8-pin SOIC
EMC1001	±0.5	±1.5	–25 to +125	3.0–3.6	50	1.5°C SMBus/I²C ambient with two alerts	6-pin SOT

Note 1: These devices use an external temperature sensor. Accuracy of the total solution is a function of the accuracy of the external sensor.
2: Maximum accuracy measured at 85°C.

THERMAL MANAGEMENT PRODUCTS: Temperature Sensors (Continued)											
Part #	# of Remote Temp. Sensors	Typical Accuracy (°C)	Maximum Accuracy @ 25°C (°C)	Maximum Temperature Range (°C)	Ambient Temp. Sensor	Alert/ THERM	Hardware Shutdown	Vcc Range (V)	Typical Supply Current (µA)	Description and Additional Features	Packages
Serial Output Temperature Sensors with Remote Diode Monitors											
MIC184	1	±1.0	±2.0	–55 to +125	1	1	–	2.7–5.5	340	Local/Remote Thermal Supervisor	8-pin SOIC, 8-pin MSOP
MIC280	1	±1.0	±2.0	–55 to +125	1	1	–	3.0–3.6	230	Precision IttyBitty® Thermal Supervisor	6-pin SOT
MIC281	1	±1.0	±3.0	–55 to +125	0	1	–	3.0–3.6	230	Low-Cost IttyBitty Thermal Sensor	6-pin SOT
MIC284	1	±1.0	±2.0	–55 to +125	1	2	–	2.7–5.5	350	Two-Zone Thermal Supervisor with CRIT Output	8-pin SOIC, 8-pin MSOP
MIC384	2	±1.0	±2.0	–55 to +125	1	1	–	2.7–5.5	350	Three-Zone Thermal Supervisor	8-pin SOIC, 8-pin MSOP
MCP9902	1	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	450	Lower Temperature Dual Temperature Sensor	8-pin WDFN
MCP9903	2	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	450	Lower Temperature Triple Temperature Sensor	10-pin 3 × 3 VDFN
MCP9904	3	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	450	Lower Temperpature Quad Temperature Sensor	10-pin 3 × 3 VDFN
EMC1033	2	±1.0	±3	–40 to +125	1	2	–	3.0–3.6	50	Triple SMBus/I²C Sensor with Resistance Error Correction	8-pin MSOP
EMC1043	2	±0.5	±1.0	–40 to +125	1	–	–	3.0–3.6	105	Triple SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Hotter of Two Zones	8-pin MSOP
EMC1046	5	±0.25	±1.0	–40 to +125	1	–	–	3.0–3.6	395	Sextuple SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Hottest of Thermal Zones	10-pin MSOP
EMC1047	6	±0.25	±1.0	–40 to +125	1	–	–	3.0–3.6	395	Septuple SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Hottest of Thermal Zones	10-pin MSOP
EMC1053	2	±0.5	±1.0	–40 to +125	1	–	–	3.0–3.6	105	Triple SMBus/I²C Sensor with Resistance Error Correction and Hotter of Two Zones	8-pin MSOP
EMC1063	2	±0.5	±1.0	–40 to +125	1		–	3.0–3.6	105	Triple SMBus/I²C Sensor with Hotter of Two Zones	8-pin MSOP
EMC1072	1	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	430	Dual SMBus/I²C Sensor with Selectable Address	8-pin MSOP
EMC1073	2	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	430	Triple SMBus/I²C Sensor with Selectable Address	10-pin MSOP
EMC1074	3	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	430	Quad SMBus/I²C Sensor with Selectable Address	10-pin MSOP
EMC1182	1	±0.25	±1.0	–40 to +125	1	2	-	3.0–3.6	200	Dual Channel 1.8V SMBus/I²C Temperature Sensor with Resistance Error Correction, Beta Compensation	8-pin TDFN, 8-pin DFN
EMC1183	2	±0.25	±1.0	–40 to +125	1	2	-	3.0–3.6	200	Triple Channel 1.8V SMBus/I²C Temperature Sensor with Resistance Error Correction, Beta Compensation	10-pin DFN
EMC1184	3	±0.25	±1.0	–40 to +125	1	2	-	3.0–3.6	200	Quad Channel 1.8V SMBus/I²C Temperature Sensor with Resistance Error Correction, Beta Compensation	10-pin DFN
EMC1186	1	±0.25	±1.0	–40 to +125	1	1	1	3.0–3.6	200	Dual Channel 1.8V SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Resistor-Settable Hardware Thermal Shutdown	8-pin TDFN
EMC1187	2	±0.25	±1.0	–40 to +125	1	1	1	3.0–3.6	200	Triple Channel 1.8V SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Resistor-Settable Hardware Thermal Shutdown	10-pin DFN
EMC1188	3	±0.25	±1.0	–40 to +125	1	1	1	3.0–3.6	200	Quad Channel 1.8V SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Resistor-Settable Hardware Thermal Shutdown	10-pin DFN
EMC1412	1	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	430	Dual SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Selectable Address	8-pin TDFN, 8-pin MSOP
EMC1413	2	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	430	Triple SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Selectable Address	10-pin DFN, 10-pin MSOP
EMC1414	3	±0.25	±1.0	–40 to +125	1	2	–	3.0–3.6	430	Quad SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Selectable Address	10-pin MSOP, 10-pin DFN
EMC1422	1	±0.25	±1.0	–40 to +125	1	1	1	3.0–3.6	430	Dual SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Resistor-Settable Hardware Thermal Shutdown	8-pin MSOP
EMC1423	2	±0.25	±1.0	–40 to +125	1	1	1	3.0–3.6	430	Triple SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Resistor-Settable Hardware Thermal Shutdown	10-pin MSOP
EMC1424	3	±0.25	±1.0	–40 to +125	1	1	1	3.0–3.6	430	Quad SMBus/I²C Sensor with Resisitance Error Correction, Beta Compensation and Resistor-Settable Hardware Thermal Shutdown	10-pin MSOP
EMC1428	7	±0.25	±1.0	–40 to +125	1	1	1	3.0–3.6	450	Octal SMBus/I²C Sensor Resisitance Error Correction, Beta Compensation and Resistor-Settable Hardware Thermal Shutdown and Hottest of Thermal Zones	16-pin QFN

Note 1: These devices use an external temperature sensor. Accuracy of the total solution is a function of the accuracy of the external sensor.
2: Maximum accuracy measured at 85°C.
3: TCN75 idle current is 250 mA. This device also has a Software Shutdown mode that reduces supply current to < 1 mA.

THERMAL MANAGEMENT: Sensor Conditioning ICs

Part #	Typical T_C Accuracy	Typical T_H Accuracy	Maximum Temperature Range (°C)	Vcc Range (V)	Maximum Supply Current (µA)	Features	Packages
MCP9600	1	1	–40 to +125	+2.7 to +5.5	500	Fully integrated thermocouple EMF to temperature converter. Supports thermocouple K, J, T, N, S, E B and R.	5 × 5 MQFN

THERMAL MANAGEMENT: Open-Loop Fan Controllers and Fan Fault Detectors

Part #	Description	# of Temp. Monitors	Typical Accuracy (°C)	Maximum Accuracy @ 25°C (°C)	Maximum Temperature Range (°C)	Vcc Range (V)	Maximum Supply Current (µA)	Features	Packages
EMC2101	Single SMBus I²C Fan Manager	2	±0.5	±1	–40 to +125	+3.0 to +3.6	1,000	Fan Controller with high-frequency PWM driver, programmable fan speed table and alert	8-pin MSOP, 8-pin SOIC
EMC2300	Triple SMBus I²C Fan Manager	3	±0.25	±3	–0 to +70	+3.0 to +3.6	3,000	Fan Controller with high-frequency PWM driver, programmable fan speed table, voltage monitors, alert	16-pin SSOP
EMC6D103S	Triple SMBus I²C Fan Manager	3	±0.25	±3	–0 to +70	+3.0 to +3.6	3,000	Fan Controller with high-frequency PWM driver, programmable fan speed table, voltage monitors, alert	24-pin SSOP1
TC642	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	1,000	FanSense™ Fan Monitor, Minimum fan speed control	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC642B	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	400	FanSense Fan Monitor, Minimum fan speed control, Fan auto-restart	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC646	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	1,000	FanSense Fan Monitor, Auto-shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC646B	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	400	FanSense Fan Monitor, Auto-shutdown, Fan auto-restart	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC647	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	1,000	FanSense Fan Monitor, Minimum fan speed control	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC647B	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	400	FanSense Fan Monitor, Minimum fan speed control, Fan auto-restart	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC648	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	1,000	Overtemperature alert, Auto-shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC648B	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	400	Overtemperature alert, Auto-shutdown, Fan auto-restart	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC649	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	1,000	FanSense Fan Monitor, Auto-shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC649B	Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	400	FanSense Fan Monitor, Auto-shutdown, Fan auto-restart	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC650	Fan Manager	1	±1	±3	–40 to +125	+2.8 to +5.5	90	Overtemperature alert	8-pin MSOP
TC651	Fan Manager	1	±1	±3	–40 to +125	+2.8 to +5.5	90	Overtemperature alert, Auto-shutdown	8-pin MSOP
TC652	Fan Manager	1	±1	±3	–40 to +125	+2.8 to +5.5	90	FanSense Fan Monitor, Overtemperature alert	8-pin MSOP
TC653	Fan Manager	1	±1	±3	–40 to +125	+2.8 to +5.5	90	FanSense Fan Monitor, Overtemperature alert, Auto-shutdown	8-pin MSOP
TC654	Dual SMBus Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	320	FanSense Fan Monitor, RPM data	10-pin MSOP
TC655	Dual SMBus Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	320	FanSense Fan Monitor, RPM data, Overtemperature alert	10-pin MSOP
TC664	Single SMBus Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	320	FanSense Fan Monitor, RPM data	10-pin MSOP
TC665	Single SMBus Fan Manager	1	Note 1	Note 1	–40 to +85	+3.0 to +5.5	320	FanSense Fan Monitor, RPM data, Overtemperature alert	10-pin MSOP
TC670	Predictive Fan Fault Detector	1	N/A	N/A	–40 to +85	+3.0 to +5.5	150	FanSense Fan Monitor, Programmable threshold	6-pin SOT-23

Note 1: These devices use an external temperature sensor. Accuracy of the total solution is a function of the accuracy of the external sensor.

THERMAL MANAGEMENT: Closed-Loop Fan Controllers with SMBus/I²C Interface

Part #	# of Fan Drivers	PWM/Linear Control	# of Remote Temp. Monitors	Ambient Temp. Sensor	Typical Accuracy (°C)	Maximum Accuracy @ 25°C (°C)	Maximum Temperature Range (°C)	Vcc Range (V)	SMBus Alert	System Shutdown	Voltage Monitors	Description	Packages
EMC2112	1	Linear	3	1	±0.25	±1.0	0 to +85	+3.3 and +5	Yes	Yes	No	RPM-Based Fan Controller with Hardware Thermal Shutdown	20-pin QFN
EMC2103-1	1	PWM	1	1	±0.5	±1.0	–40 to +125	+3.0 to +3.6	Yes	Yes	No	RPM-Based Fan Controller with Hardware Thermal Shutdown	12-pin QFN
EMC2103-2	1	PWM	3	1	±0.5	±1.0	–40 to +125	+3.0 to +3.6	Yes	Yes	No	RPM-Based Fan Controller with Hardware Thermal Shutdown	16-pin QFN
EMC2103-4	1	PWM	3	1	±0.5	±1.0	–40 to +125	+3.0 to +3.6	Yes	Yes	No	RPM-Based Fan Controller with Hardware Thermal Shutdown and EEPROM loadable	16-pin QFN
EMC2104	2	PWM	4	1	±0.25	±1.0	–40 to +85	+3.0 to +3.6	Yes	Yes	Yes	Dual RPM-Based PWM Fan Controller with Hardware Thermal Shutdown	20-pin QFN
EMC2105	1	Linear	4	1	±0.25	±1.0	–40 to +85	+3.3 and +5.0	Yes	Yes	Yes	RPM-Based High Side Fan Controller with Hardware Thermal Shutdown	20-pin QFN

THERMAL MANAGEMENT: Closed-Loop Fan Controllers with SMBus/I²C Interface (Continued)													
Part #	# of Fan Drivers	PWM/Linear Control	# of Remote Temp. Monitors	Ambient Temp. Sensor	Typical Accuracy (°C)	Maximum Accuracy @ 25°C (°C)	Maximum Temperature Range (°C)	Vcc Range (V)	SMBus Alert	System Shutdown	Voltage Monitors	Description	Packages
EMC2106	2	PWM and Linear	4	1	±0.25	±1.0	–40 to +85	+3.3 and +5.0	Yes	Yes	Yes	RPM-Based High Side Fan Controller with Hardware Thermal Shutdown	28-pin QFN
EMC2113	1	PWM	3	1	±0.5	±1.0	–40 to +125	+3.0 to +3.6	Yes	Yes	No	Single RPM-Based Fan Controller with Multiple Temperature Zones and Hardware Thermal Shutdown	16-pin QFN
EMC2301	1	PWM	N/A	N/A	N/A	N/A	–40 to +125	+3.0 to +3.6	Yes	No	N/A	Single RPM-Based PWM Fan Speed Controller	8-pin MSOP
EMC2302	2	PWM	N/A	N/A	N/A	N/A	–40 to +125	+3.0 to +3.6	Yes	No	N/A	Dual RPM-Based PWM Fan Speed Controller	10-pin MSOP
EMC2303	3	PWM	N/A	N/A	N/A	N/A	–40 to +125	+3.0 to +3.6	Yes	No	N/A	Triple RPM-Based PWM Fan Speed Controller	12-pin QFN
EMC2305	5	PWM	N/A	N/A	N/A	N/A	–40 to +125	+3.0 to +3.6	Yes	No	N/A	Penta RPM-Based PWM Fan Speed Controller	16-pin QFN

MOTOR DRIVERS

MOTOR DRIVERS: Stepper Motors, DC Motors and 3-Phase BLDC Motors										
Part #	Motor Type	Input Voltage Range (V)	Internal/ External FETs	Output Current (mA)	Control Scheme	Motor Speed Output	Protections	Temperature Operating Range (°C)	Features	Packages
MCP8024	3-Phase Brushless Motors	6.0 to 28.0	External	500	Direct PWM	N/A	UVLO, OVLO, 48V Load Dump, Thermal Shutdown, Overcurrent Output	–40 to +150	Three Op Amps, Adj. Buck Regulator, 5V LDO, 12V LDO, Thermal Warning, Dead Time, Blanking Time, Level Translator, Motor Enable	40-pin 5 × 5 QFN, 48-pin 7 × 7 TQFP
MCP8025	3-Phase Brushless Motor	6.0 to 19.0	External	500	Direct PWM	No	Overcurrent, Overvoltage, Undervoltage, Overtemperature, 48V Load Dump Protection, Short Circuit, Shoot Through	–40 to +150	Sleep Mode, LIN Transceiver, AZ Output, Adj. Buck Regulator, LOD, Op Amp, Overcurrent Comparator, Fault Output, Thermal Warning, Selectable Dead Time and Blanking Time	40-pin 5 × 5 QFN, 48-pin 7 × 7 TQFP
MCP8026	3-Phase Brushless Motor	6.0 to 28.0	External	500	Direct PWM	No	Overcurrent, Overvoltage, Undervoltage, Overtemperature, 48V Load Dump Protection, Short Circuit, Shoot Through	–40 to +150	Sleep Mode, LIN Transceiver, AZ Output, Adj. Buck Regulator, LOD, Op Amp, Overcurrent Comparator, Fault Output, Thermal Warning, Selectable Dead Time and Blanking Time	40-pin 5 × 5 QFN, 48-pin 7 × 7 TQFP
MCP8063	3-Phase Brushless Motor	2.0 to 14.0	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overtemperature, Motor Lock-up, Overcurrent, Overvoltage	–40 to +125	3-Phase BLDC 180° Sinusoidal Sensorless Fan Motor Driver, Overcurrent Limitation, Output Switching Frequency at 23 kHz	Thermally Enhanced 8-pin 4 × 4 DFN
MTS62C19A	One Bipolar Stepper Motor or Two DC Motors	10.0 to 40.0	Internal	750	Direct PWM Input, Current Limit Control, Microstepping	No	Overtemperature, Under Voltage	–40 to +105	Dual Full-Bridge Motor Driver for Stepper Motors, Pin compatible with Allegro 6219	24-pin SOIC
MTS2916A	One Bipolar Stepper Motor or Two DC Motors	10.0 to 40.0	Internal	750	Direct PWM Input, Current Limit Control, Microstepping	No	Overtemperature, Under Voltage	–40 to +105	Dual Full-Bridge Motor Driver for Stepper Motors, Pin compatible with Allegro 2916	24-pin SOIC
MTD6501C	3-Phase Brushless Motor	2.0 to 14.0	Internal	800	Sensorless Sinusoidal	Frequency Generator	Overtemperature, Motor Lock-up, Overcurrent, Overvoltage	–30 to +95	3-Phase BLDC 180° Sinusoidal Sensorless Fan Motor Driver, Overcurrent limitation, Output Switching Frequency at 20 kHz	Thermally Enhanced 8-pin SOP
MTD6501D	3-Phase Brushless Motor	2.0 to 14.0	Internal	500	Sensorless Sinusoidal	Frequency Generator	Overtemperature, Motor Lock-up, Overcurrent, Overvoltage	–30 to +95	3-Phase BLDC 180° Sinusoidal Sensorless Fan Motor Driver, Boost Mode, Overcurrent limitation, Output Switching Frequency at 20 kHz	10-pin MSOP
MTD6501G	3-Phase Brushless Motor	2.0 to 14.0	Internal	800	Sensorless Sinusoidal	Frequency Generator	Overtemperature, Motor Lock-up, Overcurrent, Overvoltage	–30 to +95	3-Phase BLDC 180° Sinusoidal Sensorless Fan Motor Driver, Overcurrent limitation, Output Switching Frequency at 23 kHz	Thermally Enhanced 8-pin SOP
MTD6502B	3-Phase Brushless Motor	2.0 to 5.5	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overtemperature, Motor Lock-up, Overcurrent, Overvoltage	–40 to +125	3-Phase BLDC Sinusoidal Sensorless Fan Motor Driver, Direction control, Overcurrent limitation, Output Switching Frequency at 30 kHz	10-pin 3 × 3 TDFN
MTD6508	3-Phase Brushless Motor	2.0 to 5.5	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Overvoltage, Overtemperature, Motor Lock-up	–40 to +125	180° Sinusoidal Sensorless Drive, Direction Control, Programmable BEMF Coefficient Range, Output Switching Frequency at 30 kHz, Programmable Start-up RPM and Slew Rate, Selectable Start-up Strength and Phase Target Regulation	10-pin 3 × 3 UDFN, 16-pin 4 × 4 UQFN
MTD6505	3-Phase Brushless Motor	2.0 to 5.5	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Overvoltage, Overtemperature, Motor Lock-up	–40 to +125	180° Sinusoidal Sensorless Drive, Direction Control, Programmable BEMF Coefficient Range, Output Switching Frequency at 30 kHz	10-pin 3 × 3 UDFN

POWER MANAGEMENT

POWER MANAGEMENT: Voltage References

Part #	V_{IN} Max (V)	Output Voltage (V)	Max. Load Current (mA)	Initial Accuracy (max.%)	Temperature Coefficient (ppm/°C)	Maximum Supply Current (µA @ 25°C)	Packages
MCP1501	5.5	1.024, 1.250, 1.8, 2.048, 2.5, 3.0, 3.3, 4.096	20	±0.08	50	350	8-pin 2 × 2 WDFN, 6-pin SOT-23, 8-pin SOIC
MCP1525	5.5	2.5	±2	±1	50	100	3-pin TO-92, 3-pin SOT-23B
MCP1541	5.5	4.096	±2	±1	50	100	3-pin TO-92, 3-pin SOT-23B
LM4040C	15	2.5, 4.096, 5.0	15	±0.5	100	65-85	3-pin SOT-23
LM4040D	15	2.5, 4.096, 5.0	15	±1	150	65-85	3-pin SOT-23
LM4041C	15	1.225, Adj. (1.24–10V)	12	±0.5	100	70	3-pin SOT-23
LM4041D	15	1.225, Adj. (1.24–10V)	12	±1	150	70	3-pin SOT-23
MIC40403	10	Adjustable	15	±1	–	70	8-pin SOT-143

POWER MANAGEMENT: Single Output Linear Regulators

Part #	Output Current (mA)	V_{IN} Min (V)	V_{IN} Max (V)	V_{OUT} (V)	Voltage Drop Typical (mV)	IGND Typical (µA)	Output Accuracy (%)	PSRR 1 kHz (dB)	Features	Packages
MIC5231	10	3.5	12	2.75, 3.0, 3.3, 5.0	150	650 nA	±2	50	High Input Voltage, Small Package	5-pin SOT-23
MIC5232	10	2.7	7	1.2, 2.5, 2.8, 3.3	100	1.8 uA	±2	55	7V input	5-pin TSOT, 6-pin VDFN
MAQ5280	25	4.5	120	Adj.	1100	31 µA	±2	80	Ultra High Input Voltage, Load Dump	8-pin SOIC
MIC5280	25	4.5	120	Adj.	1100	31 µA	±2	80	High Input Voltage, Load Dump, Reverse Battery Protection	8-pin SOIC
MIC5281	25	6	120	3.3, 5.0, Adj.	2000	6 µA	±3	90	High Input Voltage, Load Dump	8-pin MSOP
MAQ5281	25	6	120	3.3, 5.0, Adj.	2000	6 µA	±3	90	High Input Voltage, Load Dump	8-pin MSOP
MAQ5282	50	6	120	3.3, 5.0, Adj.	2000	6 µA	±3	90	High Input Voltage, High PSRR	8-pin MSOP
MIC5282	50	6	120	3.3, 5.0, Adj.	2000	6 µA	±3	90	High Input Voltage, Load Dump	8-pin MSOP
TC1014	50	2.7	6	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	85	50 µA	±0.5	64	Ultra Low Dropout	5-pin SOT-23
TC1054	50	2.7	6	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	85	50 µA	±0.5	64	Ultra Low Dropout	5-pin SOT-23
TC1070	50	2.7	6	1.23–5.5	85	50 µA	±0.5	64	Ultra Low Dropout	5-pin SOT-23
TC1072	50	2.7	6	2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	85	50 µA	±0.5	64	Ultra Low Dropout	6-pin SOT-23
TC1223	50	2.7	6	2.5, 2.7, 2.8, 3.0, 3.3, 3.6, 4.0, 5.0	85	50 µA	±0.5	64	Ultra Low Dropout	5-pin SOT-23
TC2014	50	2.7	6	1.8, 2.7, 2.8, 3.0, 3.3	45	50 µA	±0.4	55	Ultra Low Dropout	5-pin SOT-23
TC2054	50	2.7	6	1.8, 2.7, 2.8, 3.0, 3.3	45	55 µA	±0.4	50	Ultra Low Dropout	5-pin SOT-23
MCP1790	70	6	30	3.0, 3.3, 5.0	700	70 µA	±0.2	90	High Input	3-pin SOT-223, 3-pin DDPAK
MCP1791	70	6	30	3.0, 3.3, 5.0	700	70 µA	±0.2	90	High Input	5-pin DDPAK, 5-pin SOT-223
MIC5203	80	2.5	16	2.6, 2.8, 3.0, 3.3, 3.6, 3.8, 4.0, 4.5, 5.0	300	180 µA	±3	60	High Input Voltage, Small Package	4-pin SOT-143, 5-pin SOT-23
MIC5213	80	2.5	16	2.5, 2.6, 2.7, 2.8, 3.0, 3.3, 3.6, 5.0	280	180 µA	±3	60	High Input Voltage, Small Package	5-pin SC70
TC1016	80	2.7	6	1.8, 2.7, 2.8, 3.0	150	53 µA	±0.5	58	Low Droput	5-pin SC-70, 5-pin SOT-23
LP2951	100	2	30	4.8, 5.0, Adj.	380	100 µA	±0.5	70	High Input Voltage, High PSRR	8-pin SOIC, 8-pin PDIP
MIC5200	100	2.5	26	3.0, 3.3, 4.8, 5.0	230	130 µA	±1	70	Low Dropout	8-pin MSOP, 3-pin SOT-223, 8-pin SOIC
MIC5233	100	2.3	36	1.8, 2.5, 3.0, 3.3, 5.0, Adj.	270	18 µA	±1	50	High Input Voltage, Reverse Battery and Current Protection	3-pin SOT-223, 5-pin SOT-23
MIC5253	100	2.7	5.5	1.5, 1.8, 1.85, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3	165	75 µA	±0.5	70	Low Dropout	5-pin SC70
MIC5270	100	–2	–16	(–)3.0, (–)4.1, (–)5.0, Adj.	500	35 µA	±2	50	Negative LDO	5-pin SOT-23
MIC5271	100	–3.3	–16	(–)3.0, (–)4.1, (–)5.0, Adj.	500	25 µA	±2	50	Negative LDO	5-pin SOT-23
TC1015	100	2.7	6	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	180	50 µA	±0.5	64	Low Droput	5-pin SOT-23
TC1055	100	2.7	6	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	180	50 µA	±0.5	64	Low Droput	5-pin SOT-23
TC1071	100	2.7	6	1.23–5.5	180	50 µA	±0.5	64	Low Droput	5-pin SOT-23
TC1073	100	2.7	6	2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	180	50 µA	±0.5	64	Low Droput	6-pin SOT-23

POWER MANAGEMENT: Single Output Linear Regulators (Continued)										
Part #	Output Current (mA)	VIN Min (V)	VIN Max (V)	VOUT (V)	Voltage Drop Typical (mV)	IGND Typical (µA)	Output Accuracy (%)	PSRR 1 kHz (dB)	Features	Packages
TC1224	100	2.7	6	2.5, 2.7, 2.8, 3.0, 3.3, 3.6, 4.0, 5.0	180	50 µA	±0.5	64	Low Droput	5-pin SOT-23
TC2015	100	2.7	6	1.8, 2.7, 2.8, 3.0, 3.3	90	55 µA	±0.4	55	Low Droput	5-pin SOT-23
TC2055	100	2.7	6	1.8, 2.7, 2.8, 3.0, 3.3	90	55 µA	±0.4	50	Low Droput	5-pin SOT-23
TC59	100	–	–10	–8	380	3 µA	±0.5	50	Negative LDO	3-pin SOT-23A
TC1188	120	2.7	6	1.8, 2.8, 2.84, 3.15	130	50 µA	±0.5	80	High PSRR	5-pin SOT-23
TC1189	120	2.7	6	1.8, 2.8, 2.84, 3.15	130	50 µA	±0.5	80	High PSRR	5-pin SOT-23
MAQ5283	150	6	120	3.3, 5.0, Adj.	1800	8 µA	±3	75	High Input Voltage, High PSRR	8-pin SOIC
MIC2951	150	2	30	3.3, 5.0	320	120 µA	±1	67	Load Dump, Reverse Battery Protection	8-pin MSOP, 8-pin SOIC, 8-pin PDIP
MIC5205	150	2.5	16	2.5, 2.7, 2.8, 2.85, 2.9, 3.0, 3.1, 3.2, 3.3, 3.6, 3.8, 4.0, 5.0, Adj.	165	80 µA	±1	75	High Input Voltage, Small Package	5-pin SOT-23
MIC5206	150	2.5	16	2.5, 2.7, 3.0, 3.2, 3.3, 3.6, 3.8, 4.0, 5.0, Adj.	165	1.3mA	±1	75	High Input Voltage, Small Package	8-pin MSOP, 5-pin SOT-23
MIC5225	150	2.3	16	1.5, 1.8, 2.5, 2.7, 3.0, 3.3, 5.0, Adj.	310	29 µA	±0.5	35	High Input Voltage, Small Package, Reverse Current Protection	5-pin SOT-23
MIC5234	150	2.3	30	Adj.	320	20 µA	±1	–	High Input Voltage, Load Dump, Reverse Battery and Current Protection	8-pin SOIC
MIC5235	150	2.3	24	1.5, 1.8, 2.5, 2.7, 3.0, 3.3, 5.0, Adj.	310	18 µA	±1	35	High Input Voltage, Reverse Battery and Current Protection	5-pin SOT-23
MIC5236	150	2.3	30	2.5, 3.0, 3.3, 5.0, Adj.	300	20 µA	±1	55	High Input Voltage, Load Dump, Reverse Battery and Current Protection	8-pin MSOP, 8-pin SOIC
MIC5238	150	1.5	6	1.0, 1.1, 1.3	310	23 µA	±5	50	Low Dropout	5-pin TSOT, 5-pin SOT-23
MIC5247	150	2.7	6	1.5, 1.6, 1.8, 1.85, 2.0, 2.1, 2.2, 2.4	150	85 µA	±1	60	Low Dropout	5-pin TSOT, 6-pin VDFN, 5-pin SOT-23
MIC5248	150	2.7	6	1.2	–	100 µA	±3	60	Low Dropout	6-pin VDFN, 5-pin SOT-23
MIC5252	150	2.7	6	1.8, 2.5, 2.8, 2.85, 3.0, 4.75	135	90 µA	±1	60	Low Dropout	6-pin VDFN, 5-pin SOT-23
MIC5255	150	2.7	6	2.5, 2.6, 2.7, 2.75, 2.8, 2.85, 2.9, 3.0, 3.1, 3.2, 3.3, 3.5	135	90 µA	±1	60	Low Dropout	5-pin TSOT, 6-pin VDFN, 5-pin SOT-23
MIC5256	150	2.7	6	1.5, 1.8, 2.5, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.1, 3.3	135	90 µA	±1	60	Low Dropout	5-pin TSOT, 5-pin SOT-23
MIC5258	150	2.7	6	1.2	–	85 µA	±3	–	Low Dropout	5-pin SOT-23
MIC5265	150	2.7	5.5	1.5, 1.8, 1.85, 2.5, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.1, 3.2, 3.3	210	75 µA	±2	64	Low Dropout	5-pin TSOT, 6-pin UDFN
MIC5268	150	2.7	6	1.2	–	110 µA	±3	–	Low Dropout	5-pin SOT-23
MIC5283	150	6	120	3.3, 5.0, Adj.	1800	8 µA	±3	75	High Input Voltage, Load Dump	8-pin SOIC, 8-pin VDFN
MIC5295	150	2.3	24	3.0, 3.3, 5.0, Adj.	310	18 µA	±1	50	Reverse Battery and Current Protection	5-pin TO-252
MIC5301	150	2.3	5.5	1.3, 1.5, 1.8, 2.1, 2.5, 2.6, 2.8, 2.85, 2.9, 3.0, 3.3, 4.6, Adj.	40	85 µA	±2	75	Ultra Low Dropout	5-pin TSOT, 6-pin UDFN, 6-pin WDFN
MIC5302	150	2.3	5.5	1.3, 1.5, 1.8, 2.1, 2.5, 2.6, 2.8, 2.85, 2.9, 3.0, 3.3, 4.6	50	85 µA	±2	65	Ultra Low Dropout	4-pin UDFN
MIC5304	150	2.3	5.5	3.15/1.85, 3.15/1.875, 3.2/1.8	85	24 µA	±0.5	65	Ultra Low Dropout	6-pin UDFN
MIC5305	150	2.25	5.5	1.5, 1.8, 2.0, 2.5, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.3, 4.6, 4.75, Adj.	60	90 µA	±1	85	Ultra Low Dropout	5-pin TSOT, 6-pin UDFN, 6-pin VDFN
MIC5306	150	2.25	5.5	1.8, 2.5, 2.6	45	16 µA	±1	62	Ultra Low Dropout	5-pin TSOT
MIC5308	150	1.6	5.5	1.2, 1.5, 1.8, Adj.	45	23 µA	±2	90	Ultra Low Dropout, Ultra High PSRR	6-pin TSOT, 6-pin UDFN
MIC5317	150	2.5	6	1.0, 1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3	155	32 µA	±2	80	High PSRR	5-pin TSOT, 4-pin UDFN, 5-pin SOT-23
MIC5365	150	2.5	5.5	1.5, 1.8, 2.0, 2.5, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.3	155	32 µA	±2	80	High PSRR	5-pin SC70, 5-pin TSOT, 4-pin UDFN
MIC5366	150	2.5	5.5	1.5, 1.8, 2.0, 2.5, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.3	155	32 µA	±2	80	High PSRR	5-pin SC70, 4-pin UDFN
MIC5376	150	2.5	5.5	2.8	120	29 µA	±2	60	Low Dropout	5-pin SC70, 4-pin UDFN

POWER MANAGEMENT: Single Output Linear Regulators (Continued)

Part #	Output Current (mA)	V_{IN} Min (V)	V_{IN} Max (V)	V_{OUT} (V)	Voltage Drop Typical (mV)	IGND Typical (µA)	Output Accuracy (%)	PSRR 1 kHz (dB)	Features	Packages
MIC5377	150	2.5	5.5	Adj.	120	29 µA	±2	60	Low Dropout	5-pin SC70, 8-pin UQFN
MIC5378	150	2.5	5.5	Adj.	120	29 µA	±2	60	Low Dropout	5-pin SC70, 8-pin UQFN
MCP1711	150	1.4	6	1.1–5.0	670	0.6 µA	±1	–	Ultra Low I_Q, Capless	4-pin UQFN, 5-pin SOT-23
MCP1754	150	3.6	16	1.8–5.0	300	56 µA	±0.4	72	High Performance	8-pin DFN, 5-pin SOT-223, 5-pin SOT-23
MCP1754S	150	3.6	16	1.8–5.0	300	56 µA	±0.2	72	High Performance	3-pin SOT-89, 3-pin SOT-23A, 3-pin SOT-223, 8-pin DFN
MCP1804	150	2	28	1.8–18	300	50 µA	±2	50	High Input	3-pin SOT-89, 5-pin SOT-89, 3-pin SOT-223, 5-pin SOT-23
TC1017	150	2.7	6	1.8, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.3, 4.0	285	53 µA	±0.5	58	Low Dropout	5-pin SC-70, 5-pin SOT-23
TC1185	150	2.7	6	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	270	50 µA	±0.5	64	Low Dropout	5-pin SOT-23
TC1186	150	2.7	6	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	270	50 µA	±0.5	64	Low Dropout	5-pin SOT-23
TC1187	150	2.7	6	1.23–5.5	270	50 µA	±0.5	64	Low Dropout	5-pin SOT-23
TC2185	150	2.7	6	1.8, 2.7, 2.8, 3.0, 3.3	140	55 µA	±0.4	55	High Accuracy	5-pin SOT-23
TC2186	150	2.7	6	1.8, 2.7, 2.8, 3.0, 3.3	140	55 µA	±0.4	50	High Accuracy	5-pin SOT-23
MIC5207	180	2.5	16	1.8, 2.5, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 4.0, 5.0, Adj.	165	80 µA	±3	75	High Input Voltage, Small Package	5-pin TSOT, 5-pin SOT-23
MIC5201	200	2.5	26	3.0, 3.3, 4.8, 5.0, Adj.	270	130 µA	±2	75	Low Dropout	8-pin MSOP, 3-pin SOT-223, 8-pin SOIC
MIC5367	200	2.5	5.5	1.2, 1.5, 3.3	180	29 µA	±2	65	Low Dropout	6-pin UDFN
MIC5368	200	2.5	5.5	1.2, 1.5, 3.3	180	29 µA	±1	65	Low Dropout	6-pin UDFN
MIC94300	200	1.8	3.6	Input Follower	170	138 µA	–	0	RippleBlocker	4-pin UDFN
MIC94310	200	1.8	3.6	1.2, 1.5, 1.8, 1.85, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3	40	170 µA	±1	85	RippleBlocker	4-pin UDFN, 5-pin SOT-23
MIC2954	250	2	30	5.0, Adj.	375	140 µA	±1	–	Load Dump	3-pin SOT-223, 3-pin TO-220, 8-pin SOIC
MCP1700	250	2.3	6	1.8, 2.5, 3.0, 3.3, 5.0	300	1.6 µA	±0.4	44	Low I_Q	3-pin TO-92, 3-pin SOT-89, 3-pin SOT-23, 6-pin DFN
MCP1702	250	2.7	13.2	1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 4.0, 5.0	625	2 µA	±0.4	44	Low I_Q	3-pin TO-92, 3-pin SOT-89, 3-pin SOT-23A
MCP1703A	250	2.7	16	1.2–5.5	625	2 µA	±0.4	35	High Input, Low I_Q	3-pin SOT-89, 3-pin SOT-23A, 3-pin SOT-223, 8-pin DFN
MAQ5300	300	2.3	5.5	1.5, 1.8, 2.5, 2.8, 2.85, 3.0, 3.3	100	85 µA	±2	65	Low Dropout	6-pin VDFN
MIC5249	300	2.7	6	1.5, 1.8, 2.5, 2.8, 2.85, 3.0, 3.3	340	85 µA	±1	65	High PSRR	8-pin MSOP
MIC5259	300	2.7	6	1.5, 1.8, 2.1, 2.5, 2.8, 2.85, 3.0, 3.3	300	105 µA	±0.5	70	Low Dropout	5-pin TSOT, 6-pin VDFN
MIC5303	300	2.3	5.5	1.5, 1.8, 2.1, 2.5, 2.6, 2.8, 2.85, 2.9, 3.0, 3.3	100	85 µA	±2	65	Ultra Low Dropout	4-pin UDFN
MIC5307	300	2.4	5.5	1.5, 1.8, 2.8, 3.0	120	20 µA	±1	62	Low Dropout	5-pin TSOT
MIC5309	300	1.7	5.5	1.2, 1.5, 1.8, Adj.	100	23 µA	±2	90	Ultra High PSRR	6-pin TSOT, 6-pin UDFN
MIC5318	300	2.3	6	1.5, 1.8, 2.5, 2.8, 3.3, Adj.	110	85 µA	±2	75	High PSRR	5-pin TSOT, 6-pin UDFN
MIC5323	300	2.65	5.5	1.8, 2.8, 3.3, Adj.	120	90 µA	±2	80	High PSRR	5-pin TSOT, 6-pin UDFN
MIC5327	300	2.3	5.5	1.8, 2.8	180	24 µA	±0.5	60	High PSRR	4-pin UDFN
MIC5337	300	2.3	5.5	1.8, 2.8	180	24 µA	±0.5	65	High PSRR	4-pin UDFN
MIC5353	300	2.6	6	1.8, 2.5, 2.6, 2.8, 3.0, 3.3, Adj.	160	90 µA	±2	60	Low Dropout	6-pin UDFN
MIC5363	300	2.5	5.5	1.2, 2.1, 2.8, 3.3	225	38 µA	±2	80	High PSRR	6-pin UDFN
MIC5364	300	2.5	5.5	1.2, 2.1, 2.8, 3.3	225	38 µA	±2	80	High PSRR	6-pin UDFN
MIC5501	300	2.5	5.5	1.2, 1.8, 2.8, 3.0, 3.3	160	38 µA	±2	60	Low Dropout	4-pin UDFN, 5-pin SOT-23
MIC5502	300	2.5	5.5	1.2, 1.8, 2.8, 3.0, 3.3	160	38 µA	±2	60	Low Dropout	4-pin UDFN
MIC5503	300	2.5	5.5	1.2, 1.8, 2.8, 3.0, 3.3	160	38 µA	±2	60	Low Dropout	4-pin UDFN
MIC5504	300	2.5	5.5	1.2, 1.8, 2.8, 3.0, 3.1, 3.3	160	38 µA	±2	60	Low Dropout	4-pin UDFN, 5-pin SOT-23
MIC5512	300	2.5	5.5	1.2, 1.8, 2.8, 3.3	160	38 µA	±2	65	Low Dropout	6-pin UDFN
MIC5514	300	2.5	5.5	1.2, 1.8, 2.8, 3.0, 3.3	160	38 µA	±2	65	Low Dropout	6-pin UDFN

POWER MANAGEMENT: Single Output Linear Regulators (Continued)										
Part #	Output Current (mA)	V_{IN} Min (V)	V_{IN} Max (V)	V_{OUT} (V)	Voltage Drop Typical (mV)	IGND Typical (µA)	Output Accuracy (%)	PSRR 1 kHz (dB)	Features	Packages
MCP1755	300	3.6	16	1.8–5.5	300	68 µA	±0.85	80	High Input, Low Dropout	3-pin SOT-223, 8-pin DFN, 5-pin SOT-223, 5-pin SOT-23
MCP1755S	300	3.6	16	1.8–5.5	300	68 µA	±0.85	80	Low Dropout	3-pin SOT-223, 8-pin DFN
MCP1824	300	2.1	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	200	120 µA	±0.4	55	High Accuracy	5-pin SOT-223 ,5-pin SOT-23
MCP1824S	300	2.1	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	200	120 µA	±0.4	55	High Accuracy	3-pin SOT-223,
TC1107	300	2.7	6	2.5, 2.7, 2.8, 3.0, 3.3, 5.0	240	50 µA	±0.5	60	Low Dropout	8-pin MSOP, 8-pin SOIC 150mil
TC1108	300	2.7	6	2.5, 2.7, 2.8, 3.0, 3.3, 5.0	240	50 µA	±0.5	60	Low Dropout	3-pin SOT-223
TC1173	300	2.7	6	3.3, 5.0, 2.5, 2.7, 2.8, 3.0	240	50 µA	±0.5	60	Low Dropout	8-pin MSOP, 8-pin SOIC 150mil
TC1174	300	2.7	6	1.23–5.5	270	50 µA	±0.5	60	Low Dropout	8-pin MSOP, 8-pin SOIC 150mil
TC1269	300	2.7	6	2.5, 2.8, 3.0, 3.3, 5.0	240	50 µA	±0.5	50	Low Dropout	8-pin MSOP
TC1300	300	2.7	6	2.5, 2.7, 2.8, 2.85, 3.0, 3.3	210	80 µA	±0.5	60	Low Dropout	8-pin MSOP
MIC29201	400	2	26	3.3, 4.8, 5.0, 12	400	140 µA	±1	70	Load Dump, Reverse Battery Protection	5-pin TO-220, 5-pin DDPAK, 8-pin SOIC
MIC29202	400	2	26	Adj.	400	140 µA	±1	70	Load Dump, Reverse Battery Protection	5-pin TO-220, 5-pin DDPAK
MIC29204	400	2	26	5.0, Adj.	400	140 µA	±1	70	Load Dump, Reverse Battery Protection	8-pin SOIC, 8-pin PDIP
MIC2920A	400	2	26	3.3, 4.8, 5.0, 12	400	140 µA	±1	70	Load Dump, Reverse Battery Protection	3-pin SOT-223, 3-pin TO-220
MIC5325	400	1.7	5.5	1.2, 1.5, 1.8, 3.3, 3.6	110	35 µA	±2	65	Low Noise	6-pin UDFN
MIC47050	500	1	3.6	1.2, 1.8, Adj.	44	6 µA	±0.5	50	Ultra Low Dropout	6-pin UDFN, 6-pin VDFN
MIC47053	500	1	3.6	Adj.	44	6 µA	±2	55	Ultra Low Dropout	8-pin UDFN
MIC5209	500	2.5	16	1.8, 2.5, 3.0, 3.3, 3.6, 4.2, 5.0, Adj.	350	8 mA	±1	75	High Input Voltage, Small Package	8-pin SOIC, 3-pin SOT-223, 8-pin VDFN, 5-pin DDPAK
MIC5216	500	2.5	12	2.5, 3.3, 3.6, 5.0	300	8 mA	±1	75	High Input Voltage, Small Package	8-pin MSOP, 5-pin SOT-23
MIC5219	500	2.5	12	2.5, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.1, 3.3, 3.6, 5.0, Adj.	350	12 mA	±1	75	High Input Voltage, Small Package	8-pin MSOP, 6-pin UDFN, 6-pin VDFN, 5-pin SOT-23
MIC5237	500	2.5	16	2.5, 3.3, 5.0	300	8 mA	±3	75	High Input Voltage, Reverse Battery Protection	3-pin TO-263, 3-pin TO-220
MIC5239	500	2.3	30	1.5, 1.8, 2.5, 3.0, 3.3, 5.0, Adj.	350	23 µA	±1	50	Reverse Battery and Current Protection	8-pin MSOP, 8-pin SOIC, 3-pin SOT-223
MIC5319	500	2.5	5.5	1.375, 1.8, 1.85, 2.5, 2.6, 2.7, 2.8, 2.85, 2.9, 3.0, 3.3, 5.0, Adj.	200	90 µA	±1	70	High PSRR	5-pin TSOT, 6-pin VDFN
MIC5524	500	2.5	5.5	1.2, 1.8, 2.8, 3.0, 3.3	260	38 µA	±2	65	Low Noise	4-pin UDFN
MIC5528	500	2.5	5.5	3.3	260	38 µA	±2	70	Low Dropout	6-pin UDFN, 6-pin X2DFN
MIC94305	500	1.8	3.6	Input Follower	170	150 µA	–	0	RippleBlocker	6-pin UDFN
MIC94325	500	1.8	3.6	Adj.	100	170 µA	±1	85	RippleBlocker	6-pin UDFN
MIC94345	500	1.8	3.6	1.2, 1.5, 1.8, 2.8, 3.3	100	170 µA	±1	85	RippleBlocker	6-pin UDFN
MIC94355	500	1.8	3.6	1.2, 1.5, 1.8, 2.8, 3.3	100	170 µA	±1	85	RippleBlocker	6-pin UDFN
MCP1725	500	2.3	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	210	120 µA	±0.5	60	Low Dropout	8-pin DFN, 8-pin SOIC 150mil
MCP1825	500	2.1	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	210	120 µA	±0.5	60	Low Dropout	5-pin TO-220, 5-pin DDPAK, 5-pin SOT-223
MCP1825S	500	2.1	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	300	120 µA	±0.5	60	Low Dropout	3-pin TO-220, 3-pin SOT-223, 3-pin DDPAK
TC1262	500	2.7	6	2.5, 2.8, 3.0, 3.3, 5.0	350	80 µA	±0.5	64	Low Dropout	3-pin TO-220, 3-pin SOT-223, 3-pin DDPAK
TC1263	500	2.7	6	2.5, 2.8, 3.0, 3.3, 5.0	350	80 µA	±0.5	64	Low Dropout	5-pin TO-220, 5-pin DDPAK, 8-pin SOIC 150mil
MIC29371	750	4.3	26	3.3, 5.0, 12	370	160 µA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29372	750	4.3	26	Adj.	370	160 µA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC2937A	750	4.3	26	3.3, 5.0, 12	370	160 µA	±1	–	Load Dump, Reverse Current Protection	3-pin TO-263, 3-pin TO-220
MIC3775	750	2.25	6	1.5, 1.65, 1.8, 2.5, 3.0, 3.3, Adj.	280	6.5 mA	±1	60	Reverse Current Protection	8-pin MSOP
MIC3975	750	2.25	16	1.65, 1.8, 2.5, 3.0, 3.3, 5.0, Adj.	300	7.5 mA	±1	55	Reverse Current Protection	8-pin MSOP

POWER MANAGEMENT: Single Output Linear Regulators (Continued)										
Part #	Output Current (mA)	V_{IN} Min (V)	V_{IN} mAx (V)	V_{OUT} (V)	Voltage Drop Typical (mV)	IGND Typical (µA)	Output Accuracy (%)	PSRR 1 kHz (dB)	Features	Packages
TC1264	800	2.7	6	1.8, 2.5, 3.0, 3.3	450	80 µA	±0.5	64	Low Dropout	3-pin TO-220, 3-pin SOT-223 3-pin DDPAK
TC1265	800	2.7	6	1.8, 2.5, 3.0, 3.3	450	80 µA	±0.5	64	Low Dropout	5-pin TO-220, 5-pin DDPAK, 8-pin SOIC 150mil
TC2117	800	2.7	6	1.8, 2.5, 3.0, 3.3	600	80 µA	±0.5	55	Low Dropout	3-pin SOT-223, 3-pin DDPAK
MIC37100	1000	2.25	6	1.5, 1.65, 1.8, 2.5, 3.3	280	400 µA	±1	50	Reverse Battery and Current Protection	3-pin SOT-223
MIC37101	1000	2.25	6	1.5, 1.65, 1.8, 2.1, 2.5, 3.3	280	400 µA	±1	50	Reverse Battery and Current Protection	8-pin SOIC
MIC37102	1000	2.25	6	Adj	280	400 µA	±1	50	Reverse Battery and Current Protection	8-pin SOIC, 5-pin SPAK
MIC39100	1000	2.25	16	1.8, 2.5, 3.3, 5.0	410	6.5 mA	±1	55	Reverse Battery and Current Protection	3-pin SOT-223
MIC39101	1000	2.25	16	1.8, 2.5, 3.3, 5.0	410	6.5 mA	±1	55	Reverse Battery and Current Protection	8-pin SOIC
MIC39102	1000	2.25	16	Adj.	410	6.5 mA	±1	55	Reverse Battery and Current Protection	8-pin SOIC
MIC47100	1000	1	3.6	0.8, 1.0, 1.2, Adj.	80	350 µA	±0.5	80	Ultra Low Dropout	8-pin MSOP, 8-pin VDFN
MIC69101	1000	1.65	5.5	1.8	215	11 mA	±2	55	Low Dropout	10-pin VDFN
MIC69103	1000	1.65	5.5	Adj.	215	11 mA	±2	55	Low Dropout	10-pin VDFN
MCP1726	1000	2.3	6	0.8, 1.2, 1.8, 2.5, 3.3, 5.0	500	130 µA	±0.5	54	Low Dropout	8-pin DFN, 8-pin SOIC 150mil
MCP1826	1000	2.3	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	225	120 µA	±0.5	60	Low Dropout	5-pin TO-220, 5-pin DDPAK, 5-pin SOT-223
MCP1826S	1000	2.3	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	225	120 µA	±0.5	60	Low Dropout	3-pin TO-220, 3-pin SOT-223, 3-pin DDPAK
MIC2940A	1250	2	26	3.3, 5.0, 12	400	35 mA	±1	–	Load Dump, Reverse Current Protection	3-pin TO-263, 3-pin TO-220
MIC2941A	1250	2	26	Adj.	400	35 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29150	1500	2.25	26	3.3, 5.0, 12	350	22 mA	±1	–	Load Dump, Reverse Current Protection	3-pin TO-263, 3-pin TO-220
MIC29151	1500	2.25	26	3.3, 5.0, 12	350	22 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29152	1500	2.25	26	Adj.	350	22 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-252, 5-pin TO-220, 5-pin DDPAK
MIC37139	1500	2.25	6	1.8, 2.5	500	17 mA	±1	50	Reverse Battery and Current Protection	Please call for package information
MIC37150	1500	2.25	6	1.5, 1.65, 1.8, 2.5, 3.3	325	17 mA	±1	45	Reverse Battery and Current Protection	3-pin SPAK
MIC37151	1500	2.25	6	1.5, 1.65, 1.8, 2.5, 3.3	325	17 mA	±1	45	Reverse Battery and Current Protection	5-pin SPAK
MIC37152	1500	2.25	6	Adj.	325	17 mA	±1	45	Reverse Battery and Current Protection	8-pin SOIC, 5-pin SPAK
MIC37153	1500	2.25	6	Adj.	325	17 mA	±1	45	Reverse Battery and Current Protection	8-pin SOIC
MIC39150	1500	2.25	16	1.65, 1.8, 2.5	375	17 mA	±1	53	Reverse Battery and Current Protection	3-pin TO-263, 3-pin TO-220
MIC39151	1500	2.25	16	1.65, 1.8, 2.5	375	17 mA	±1	53	Reverse Battery and Current Protection	5-pin TO-220, 5-pin DDPAK
MIC39151	1500	2.25	6	Adj.	365	110 mA	±1	45	Low Dropout	5-pin TO-220, 5-pin DDPAK
MIC39152	1500	2.25	16	Adj.	375	17 mA	±1	53	Reverse Battery and Current Protection	5-pin TO-252, 5-pin DDPAK
MIC47150	1500	1.4	6.5	Adj.	280	15 mA	±1	55	Low Dropout	5-pin TO-252
MIC49150	1500	1.4	6.5	0.9, 1.2, 1.5, 1.8, Adj.	280	15 mA	±1	57	Low Dropout	8-pin MSOP, 5-pin SPAK
MIC59150	1500	1	3.8	Adj.	100	12.5 mA	±1	60	Ultra Low Dropout	8-pin SOIC
MIC61150	1500	1.1	3.6	1.0, Adj.	75	7.6 mA	±1	50	Ultra Low Dropout, Soft Start	10-pin MSOP, 10-pin VDFN
MCP1727	1500	2.3	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	330	120 µA	±0.5	60	Low Dropout	8-pin DFN, 8-pin SOIC 150mil
MCP1827	1500	2.3	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	330	120 µA	±0.5	60	Low Dropout	5-pin TO-220, 5-pin DDPAK
MCP1827S	1500	2.3	6	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	330	120 µA	±0.5	60	Low Dropout	3-pin TO-220, 3-pin DDPAK
MIC49200	2000	1.4	6.5	1.0, 1.8, Adj.	400	15 mA	±1	83	Low Dropout	5-pin SPAK
MIC68200	2000	1.65	5.5	1.2, 1.5, 1.8, 2.5, 3.3, Adj	300	42 mA	±1	60	Low Dropout, Soft Start	10-pin VDFN
MIC37252	2500	3	6	Adj.	550	40 mA	±2	50	Reverse Current Protection	5-pin SPAK, 5-pin DDPAK

POWER MANAGEMENT: Single Output Linear Regulators (Continued)										
Part #	Output Current (mA)	V_{IN} Min (V)	V_{IN} mAx (V)	V_{OUT} (V)	Voltage Drop Typical (mV)	IGND Typical (µA)	Output Accuracy (%)	PSRR 1 kHz (dB)	Features	Packages
MIC29300	3000	2.25	26	3.3, 5.0, 12	370	37 mA	±1	–	Load Dump, Reverse Current Protection	3-pin TO-263, 3-pin TO-220
MIC29301	3000	2.25	26	3.3, 5.0, 12	370	37 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29302	3000	2.25	26	Adj.	370	37 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29302A	3000	3	16	Adj.	450	60 mA	±1	–	Reverse Battery and Current Protection	5-pin TO-252, 5-pin DDPAK
MIC29302H	3000	2.25	26	Adj.	370	37 mA	±1	–	Load Dump, Reverse Current Protection	5-pin DDPAK
MIC29303	3000	2.25	26	Adj.	370	37 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29310	3000	2.3	16	3.3, 5.0	600	60 mA	±1	–	Load Dump, Reverse Current Protection	3-pin TO-263, 3-pin TO-220
MIC29312	3000	2.3	16	Adj.	600	60 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC35302	3000	2.25	6	Adj.	370	20 mA	±1	50	Reverse Battery and Current Protection	5-pin TO-252
MIC37300	3000	2.25	6	1.5, 1.65, 1.8, 2.5, 3.3	300	27 mA	±1	50	Reverse Current Protection	3-pin SPAK
MIC37301	3000	2.25	6	1.5, 1.8, 2.5, 3.3	300	27 mA	±1	50	Reverse Current Protection	8-pin SOIC, 5-pin SPAK
MIC37302	3000	2.25	6	Adj.	300	27 mA	±1	50	Reverse Current Protection	5-pin SPAK, 5-pin DDPAK
MIC37303	3000	2.25	6	Adj.	300	27 mA	±1	50	Reverse Current Protection	8-pin SOIC, 8-pin VDFN
MIC39300	3000	2.25	16	1.8, 2.5	385	45 mA	±1	–	Reverse Battery and Current Protection	3-pin TO-263, 3-pin TO-220
MIC39301	3000	2.25	16	1.8, 2.5	385	45 mA	±1	–	Reverse Battery and Current Protection	5-pin TO-220, 5-pin DDPAK
MIC39302	3000	2.25	16	Adj.	385	45 mA	±1	–	Reverse Battery and Current Protection	5-pin DDPAK
MIC47300	3000	1.4	6.5	Adj.	230	25 mA	±1	–	Low Dropout	5-pin TO-252
MIC49300	3000	1.4	6.5	0.9, 1.2, 1.5, 1.8, Adj.	280	25 mA	±1	–	Low Dropout	5-pin SPAK
MIC59300	3000	1	3.8	1.2V, Adj.	205	30 mA	±1	65	Low Dropout	8-pin SOIC, 5-pin DDPAK
MIC61300	3000	1.1	3.6	1.0, Adj.	150	7.6 mA	±1	55	Low Dropout, Soft Start	10-pin MSOP, 10-pin VDFN
MIC69301	3000	1.65	5.5	1.2	275	32 mA	±2	55	Low Dropout	8-pin SOIC, 5-pin SPAK, 5-pin DDPAK
MIC69302	3000	1.65	5.5	Adj.	275	32 mA	±2	55	Low Dropout	5-pin SPAK, 5-pin DDPAK
MIC69303	3000	1.65	5.5	Adj.	275	32 mA	±2	55	High Current	8-pin SOIC, 12-pin VDFN
MIC68400	4000	1.65	5.5	1.8, Adj.	360	90 mA	±2	50	Low Dropout, Soft Start	16-pin VQFN
MIC68401	4000	1.65	5.5	Adj.	360	90 mA	±2	50	Low Dropout, Soft Start	16-pin VQFN
MIC29500	5000	2.25	26	3.3, 5.0, 12	370	70 mA	±1	–	Load Dump, Reverse Current Protection	3-pin TO-220
MIC29501	5000	2.25	26	3.3, 5.0, 12	370	70 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29502	5000	2.25	26	Adj.	370	70 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29503	5000	2.25	26	Adj.	370	70 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220, 5-pin DDPAK
MIC29510	5000	2.3	16	3.3, 5.0	700	100 mA	±1	–	Load Dump, Reverse Current Protection	3-pin TO-220
MIC29512	5000	2.3	16	Adj.	700	100 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-220
MIC37501	5000	2.3	6	1.5, 1.65, 1.8, 2.5, 3.3	330	57 mA	±1	–	Reverse Current Protection	7-pin SPAK
MIC37502	5000	2.3	6	Adj.	330	57 mA	±1	–	Reverse Current Protection	7-pin SPAK, 5-pin DDPAK
MIC39500	5000	2.25	16	1.8, 2.5	400	70 mA	±1	30	Reverse Battery and Current Protection	3-pin TO-263, 3-pin TO-220
MIC39501	5000	2.25	16	1.8, 2.5	400	70 mA	±1	30	Reverse Battery and Current Protection	5-pin TO-220, 5-pin DDPAK
MIC49500	5000	1.4	6	0.9, 1.2, Adj.	290	55 mA	±1	75	Low Dropout	7-pin SPAK
MIC69502	5000	1.65	5.5	Adj.	250	54 mA	±1	52	High Current	7-pin SPAK
MIC29712	7500	2.3	16	Adj.	700	250 mA	±2	–	High Current	5-pin TO-220
MIC29751	7500	2.5	26	3.3, 5.0	425	120 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-247
MIC29752	7500	2.5	26	Adj.	425	120 mA	±1	–	Load Dump, Reverse Current Protection	5-pin TO-247

POWER MANAGEMENT: Multiple Output Linear Regulators

Part #	Product Type	I_{OUT} #1	I_{OUT} #2	I_{OUT} #3	I_{OUT} #4	V_{IN} Min. (V)	V_{IN} Max. (V)	V_{OUT} (V)	Voltage Drop Typ. (mV)	IGND Typ. (µA)	PSRR 1kHz (dB)	Packages
MIC2210	Dual LDOs	150 mA	300 mA	–	–	2.25	5.5	Please Refer to Datasheet	120/140	48/60 µA	60	10-pin VDFN
MIC2211	Dual LDOs	150 mA	300 mA	–	–	2.25	5.5	Please Refer to Datasheet	120/140	48/60 µA	60	10-pin VDFN
MIC2212	Dual LDOs	150 mA	300 mA	–	–	2.25	5.5	Please Refer to Datasheet	120/140	48/60 µA	60	10-pin VDFN
MIC2213	Dual LDOs	150 mA	300 mA	–	–	2.25	5.5	Please Refer to Datasheet	120/140	48/60 µA	60	10-pin VDFN, 16-pin VQFN
MIC2214	Dual LDOs	150 mA	300 mA	–	–	2.25	5.5	Please Refer to Datasheet	120/140	48/60 µA	60	10-pin VDFN, 16-pin VQFN
MIC2215	Multi-Channel LDOs	250 mA	250 mA	250 mA	–	2.25	5.5	Please Refer to Datasheet	100	110 µA	70	16-pin VQFN
MIC2219	Dual LDOs	150 mA	300 mA	–	–	2.25	5.5	Please Refer to Datasheet	120	48 µA	60	10-pin VDFN
MIC5202	Dual LDOs	100 mA	100 mA	–	–	2.5	26	Please Refer to Datasheet	225	170 µA	75	8-pin SOIC
MIC5208	Dual LDOs	50 mA	50 mA	–	–	2.5	16	Please Refer to Datasheet	250	180 µA	–	8-pin MSOP
MIC5210	Dual LDOs	150 mA	150 mA	–	–	2.5	16	Please Refer to Datasheet	165	80 µA	75	8-pin MSOP
MIC5211	Dual LDOs	80 mA	80 mA	–	–	2.5	16	Please Refer to Datasheet	250	90 µA	60	6-pin SOT-23
MIC5212	Dual LDOs	500 mA	500 mA	–	–	4	16	Please Refer to Datasheet	350	1.5mA	75	8-pin SOIC
MIC5264	Dual LDOs	150 mA	150 mA	–	–	2.7	5.5	Please Refer to Datasheet	210	75 µA	64	10-pin VDFN
MIC5310	Dual LDOs	150 mA	150 mA	–	–	2.3	5.5	Please Refer to Datasheet	35	85 µA	70	8-pin UDFN, 8-pin VDFN
MIC5311	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	120	28 µA	60	10-pin VDFN
MIC5312	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	120	28 µA	60	10-pin VDFN
MIC5315	Dual LDOs	300 mA	300 mA	–	–	1.7	5.5	Please Refer to Datasheet	85	30 µA	65	10-pin UDFN
MIC5316	Dual LDOs	300 mA	300 mA	–	–	1.7	5.5	Please Refer to Datasheet	85	30 µA	65	12-pin UDFN
MIC5320	Dual LDOs	150 mA	150 mA	–	–	2.3	5.5	Please Refer to Datasheet	35	85 µA	65	6-pin TSOT, 6-pin UDFN, 6-pin WDFN
MIC5321	Dual LDOs	150 mA	150 mA	–	–	2.3	5.5	Please Refer to Datasheet	35	85 µA	75	6-pin TSOT, 6-pin UDFN, 6-pin WDFN
MIC5322	Dual LDOs	150 mA	150 mA	–	–	2.3	5.5	Please Refer to Datasheet	35	150 µA	75	6-pin UDFN
MIC5330	Dual LDOs	300 mA	300 mA	–	–	2.3	5.5	Please Refer to Datasheet	75	85 µA	70	8-pin VDFN
MIC5331	Dual LDOs	300 mA	300 mA	–	–	2.3	5.5	Please Refer to Datasheet	120	40 µA	65	8-pin UDFN
MIC5332	Dual LDOs	300 mA	300 mA	–	–	2.3	5.5	Please Refer to Datasheet	120	40 µA	65	8-pin UDFN
MIC5333	Dual LDOs	300 mA	300 mA	–	–	2.3	5.5	Please Refer to Datasheet	120	40 µA	65	10-pin UDFN
MIC5335	Dual LDOs	300 mA	300 mA	–	–	2.3	5.5	Please Refer to Datasheet	75	90 µA	65	6-pin UDFN
MIC5338	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	220	38 µA	55	6-pin UDFN
MIC5339	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	220	38 µA	55	6-pin UDFN
MIC5350	Dual LDOs	300 mA	500 mA	–	–	2.6	5.5	Please Refer to Datasheet	75/125	95 µA	50	8-pin UDFN
MIC5355	Dual LDOs	500mA	500 mA	–	–	2.5	5.5	Please Refer to Datasheet	350	38 µA	55	8-pin MSOP
MIC5356	Dual LDOs	500mA	500 mA	–	–	2.5	5.5	Please Refer to Datasheet	350	38 µA	55	8-pin MSOP, 8-pin VDFN
MIC5357	Dual LDOs	500mA	500 mA	–	–	2.6	5.5	Please Refer to Datasheet	130	95 µA	70	8-pin MSOP
MIC5370	Dual LDOs	150mA	150 mA	–	–	2.3	5.5	Please Refer to Datasheet	155	32 µA	60	6-pin UDFN
MIC5371	Dual LDOs	150mA	150 mA	–	–	2.5	5.5	Please Refer to Datasheet	155	32 µA	60	6-pin UDFN
MIC5373	Multi-Channel LDOs	200mA	200 mA	200 mA	–	1.7	5.5	Please Refer to Datasheet	170	32 µA	55	16-pin UQFN
MIC5374	Multi-Channel LDOs	200 mA	200 mA	200 mA	1 mA	1.7	5.5	Please Refer to Datasheet	170	42 µA	55	16-pin UQFN
MIC5380	Dual LDOs	150 mA	150 mA	–	–	2.5	5.5	Please Refer to Datasheet	155	32 µA	60	10-pin UQFN
MIC5381	Dual LDOs	150 mA	150 mA	–	–	2.5	5.5	Please Refer to Datasheet	155	32 µA	60	10-pin UQFN
MIC5383	Multi-Channel LDOs	200 mA	200 mA	200 mA	–	1.7	5.5	Please Refer to Datasheet	170	32 µA	55	16-pin UQFN
MIC5384	Multi-Channel LDOs	200 mA	200 mA	200 mA	1 mA	1.7	5.5	Please Refer to Datasheet	170	42 µA	55	16-pin UQFN
MIC5385	Multi-Channel LDOs	150 mA	150 mA	150 mA	–	2.5	5.5	Please Refer to Datasheet	180	32 µA	70	8-pin UDFN
MIC5387	Multi-Channel LDOs	150 mA	150 mA	150 mA	–	2.5	5.5	Please Refer to Datasheet	180	32 µA	70	6-pin UDFN
MIC5388	Dual LDOs	200 mA	200 mA	–	–	2.5	5.5	Please Refer to Datasheet	175	32 µA	73	6-pin WLCSP

POWER MANAGEMENT: Multiple Output Linear Regulators (Continued)

Part #	Product Type	I_{OUT} #1	I_{OUT} #2	I_{OUT} #3	I_{OUT} #4	V_{IN} Min. (V)	V_{IN} Max. (V)	V_{OUT} (V)	Voltage Drop Typ. (mV)	IGND Typ. (µA)	PSRR 1kHz (dB)	Packages
MIC5389	Dual LDOs	200 mA	200 mA	–	–	2.5	5.5	Please Refer to Datasheet	175	32 µA	73	6-pin WLCSP
MIC5392	Dual LDOs	150 mA	150 mA	–	–	2.5	5.5	Please Refer to Datasheet	155	57 µA	60	6-pin UDFN, 6-pin X2DFN
MIC5393	Dual LDOs	150 mA	150 mA	–	–	2.5	5.5	Please Refer to Datasheet	155	57 µA	60	6-pin X2DFN
MIC5396	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	160	37 µA	60	8-pin UDFN, 8-pin X2DFN
MIC5397	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	160	37 µA	60	8-pin UDFN, 8-pin X2DFN
MIC5398	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	160	37 µA	60	8-pin X2DFN
MIC5399	Dual LDOs	300 mA	300 mA	–	–	2.5	5.5	Please Refer to Datasheet	160	37 µA	60	8-pin UDFN, 8-pin X2DFN
MIC68220	Dual LDOs	2.0A	2.0A	–	–	1.65	5.5	Please Refer to Datasheet	300	15 mA	40	20-pin VDFN
TC1307	Single LDOs	150 mA	150 mA	150 mA	150 mA	2.7	6	Please Refer to Datasheet	200	220 µA	60	16-pin QSOP
TC1301A	Single LDOs	300 mA	150 mA	–	–	2.7	6	Please Refer to Datasheet	104	103 µA	58	8-pin MSOP, 8-pin DFN
TC1301B	Single LDOs	300 mA	150 mA	–	–	2.7	6	Please Refer to Datasheet	104	114 µA	58	8-pin MSOP, 8-pin DFN
TC1302A	Single LDOs	300 mA	150 mA	–	–	2.7	6	Please Refer to Datasheet	104	103 µA	58	8-pin MSOP, 8-pin DFN
TC1302B	Single LDOs	300 mA	150 mA	–	–	2.7	6	Please Refer to Datasheet	104	114 µA	58	8-pin MSOP, 8-pin DFN

POWER MANAGEMENT: Linear Regulators – LDO Controller and SIM Card

Part #	Product Type	V_{IN} Min. (V)	V_{IN} Max. (V)	V_{OUT} (V)	IGND Typ. (µA)	V_{REF} (V)	V_{EN} (V)	Internal Charge Pump	External N-Ch. MOSFET	Packages
MIC5156	LDO Controllers	3	36	3.3, 5.0, Adj.	2.7	1.235	2.4	–	Yes	8-pin SOIC, 8-pin PDIP
MIC5157	LDO Controllers	3	36	3.3, 5.0, 12	4.5	1.235	2.4	Yes	Yes	14-pin PDIP, 14-pin SOIC 150mil
MIC5158	LDO Controllers	3	36	5.0, Adj.	4.5	1.235	2.4	Yes	Yes	14-pin PDIP, 14-pin SOIC 150mil
MIC5159	LDO Controllers	1.65	5.5	1.8, 3.0, Adj.	10	1.235	1.2	–	Yes	6-pin SOT-23
MIC5190	LDO Controllers	0.9	5.5	Adj. down to 0.5V	15	0.5	0.8	–	Yes	10-pin MSOP, 10-pin VDFN
MIC5191	LDO Controllers	1	5.5	Adj. down to 1.0V	15	1	0.8	–	Yes	10-pin MSOP, 10-pin VDFN
MIC4555	SIM Card Lvl Shifter with 50 mA LDO	2.7	5.5	1.8, 3.3	41/79	–	–	–	–	16-pin VQFN

POWER MANAGEMENT: DDR Termination Regulators

Part #	I_{OUT}	V_{IN} Min. (V)	V_{IN} Max. (V)	V_{OUT} (V)	PWR Good	VTT Accuracy	External Transistor	Sync Buck	Frequency	Features	Packages
MIC5162	±7A	1.35	6	1/2 of V_{IN}	–	±5 mV	✓	–	–		10-pin MSOP
MIC5163	±7A	0.75	6	1/2 of V_{IN}	–	±5 mV	✓	–	–	Low Voltage	10-pin MSOP
MIC5164	±7A	1.35	6	1/2 of V_{IN}	✓	±5 mV	✓	–	–		10-pin MSOP
MIC5165	±7A	0.75	6	1/2 of V_{IN}	✓	±5 mV	✓	–	–	Low Voltage	10-pin MSOP
MIC5166	±3A	0.9	3.6	1/2 of V_{IN}	✓	±40 mV	–	–	–	Integrated FETs	3 × 3 DFN
MIC5167	±6A	2.6	5.5	Adj. down to 0.35V	✓	±12 mV	–	✓	1 MHz	Integrated Sync Buck	4 × 4 DFN

POWER MANAGEMENT: High-Voltage Linear Regulators

Part #	Input to Output Voltage Differential (Min.)	Input to Output Voltage Differential (Max.)	Output Voltage (V)	Max Output Current (mA)	Typical Line Regulation (%/V)	Typical Load Regulation (%/mA)	Packages
LR8	12	450	1.2–440	10	0.003	0.15	3-Lead TO-252, 3-Lead TO-92, 3-Lead SOT-89
LR12	12	100	1.2–88	50	0.003	0.06	3-Lead TO-252, 8-Lead SOIC, 3-Lead TO-92
LR645	15	450	10	3	0.0001	0.50	8-Lead SOIC, 3-Lead TO-92, 3-Lead TO-220, 3-Lead SOT-89
LR745	25	450	20	2	0.0001	0.50	3-Lead TO-92, 3-Lead SOT-89

POWER MANAGEMENT: Single Output Switching Regulators

Part #	Input Voltage Range (V)	Output Voltage (V)	Operating Junction Temperature Range (°C)	Switching Frequency (kHz)	Output Current (mA)	Features	Packages
MCP1601	2.7 to 5.5	0.9V to Vin	–40 to +85	750	500	UVLO, Auto-switching, LDO	8-pin MSOP
MCP1602	2.7 to 5.5	0.8 to 4.5	–40 to +85	2000	500	PFM, PWM auto-switching, UVLO, soft start, power good indicator	10-pin MSOP, 10-pin 3 × 3 DFN
MCP1603	2.7 to 5.5	0.8 to 4.0	–40 to +85	2000	500	Overtemperature and overcurrent protection	5-pin TSOT-23, 8-pin 2 × 3 DFN
MCP1612	2.7 to 5.5	0.8 to 5.5	–40 to +85	1400	1000	Overall efficiency > 94%, Soft start, overtemperature and overcurrent protection	8-pin MSOP, 8-pin 3 × 3 DFN
MCP16311	4.4 to 30.0	2.0 to 24.0	–40 to +125	500	1000	PFM/PWM operation, enable function	8-pin MSOP, 8-pin 2 × 3 TDFN
MCP16312	4.4 to 30.0	2.0 to 24.0	–40 to +125	500	1000	PWM operation, enable function	8-pin MSOP, 8-pin 2 × 3 TDFN
MCP16301	4.0 to 30	2.0 to 15	–40 to +85	500	600	Integrated N-channel, UVLO, Soft start, Overtemperature protection	6-pin SOT-23
TC105	2.2 to 10	3.0, 3.3, 5.0	–40 to +85	300	1000	Low power shutdown mode	5-pin SOT-23A
MIC24046	4.5 to 19	0.7 to 3.3	–40 to +125	400–790	5000	Internal soft-start and thermal shutdown protection	20-pin 3 × 3 QFN
MIC24051	4.5 to 19	Adj.	–40 to +125	600	6000	Power Good, Soft Start, Architecture Regulation Scheme	28-pin 5 × 6 QFN
MIC24052	4.5 to 19	Adj.	–40 to +125	600	6000	Power Good, Soft Start, HyperLight Load® mode	28-pin 5 × 6 QFN
MIC24053	4.5 to 19	Adj.	–40 to +125	600	9000	Power Good, Soft Start, Architecture Regulation Scheme	28-pin 5 × 6 QFN
MIC24054	4.5 to 19	Adj.	–40 to +125	600	9000	Power Good, Soft Start, HyperLight Load mode	28-pin 5 × 6 QFN
MIC24055	4.5 to 19	Adj.	–40 to +125	600	12000	Power Good, Soft Start, Architecture Regulation Scheme	28-pin 5 × 6 QFN
MIC24056	4.5 to 19	Adj.	–40 to +125	600	12000	Power Good, Soft Start, HyperLight Load mode	28-pin 5 × 6 QFN
MIC26601	4.5 to 28	Adj.	–40 to +125	600	6000	Power Good, Soft Start, Hyper Speed Control® architecture	28-pin 5 × 6 QFN
MIC26603	4.5 to 28	Adj.	–40 to +125	600	6000	Power Good, Soft Start, HyperLight Load mode	28-pin 5 × 6 QFN
MIC26603Z	4.5 to 28	Adj.	–40 to +125	600	6000	Power Good, Soft Start, HyperLight Load mode	28-pin 5 × 6 QFN
MIC26901	4.5 to 28	Adj.	–40 to +125	600	9000	Power Good, Soft Start, Hyper Speed Control architecture	28-pin 5 × 6 QFN
MIC26903	4.5 to 28	Adj.	–40 to +125	600	9000	Power Good, Soft Start, HyperLight Load mode	28-pin 5 × 6 QFN
MIC26950	4.5 to 26	Adj.	–40 to +125	300	12000	Soft Start, Architecture Regulation Scheme - Hyper Speed Control architecture, Thermal Shutdown	28-pin 5 × 6 QFN
MIC27600	4.5 to 36	Adj.	–40 to +125	300	7000	Soft Start, Architecture Regulation Scheme - Hyper Speed Control architecture, Thermal Shutdown	28-pin 5 × 6 QFN
MIC28510	4.5 to 75	Adj.	–40 to +125	100–500	4000	Soft Start, Architecture Regulation Scheme - Hyper Speed Control architecture, Thermal Shutdown	28-pin 5 × 6 QFN
MIC28511-1	4.6 to 60	Adj.	–40 to +125	200–680	3000	Power Good, Soft Start, HyperLight Load mode	24-pin 3 × 4 FCQFN
MIC28511-2	4.6 to 60	Adj.	–40 to +125	200–680	3000	Power Good, Soft Start, Hyper Speed Control architecture	24-pin 3 × 4 FCQFN
MIC28512-1	4.6 to 70	Adj.	–40 to +125	200–680	2000	Power Good, Soft Start, HyperLight Load mode	24-pin 3 × 4 FCQFN
MIC28512-2	4.6 to 70	Adj.	–40 to +125	200–680	2000	Power Good, Soft Start, Hyper Speed Control architecture	24-pin 3 × 4 FCQFN
MIC28513-1	4.6 to 45	Adj.	–40 to +125	200–680	4000	Power Good, Soft Start, Hyper Speed Control architecture	24-pin 3 × 4 FCQFN
MIC28513-2	4.6 to 45	Adj.	–40 to +125	200–680	4000	Power Good, Soft Start, Hyper Speed Control architecture	24-pin 3 × 4 FCQFN
MIC4930	2.7 to 5.5	Adj.	–40 to +125	3300	3000	Power Good, Safe Start, Thermal Shutdown and Current Limit	10-pin 3 × 4 DFN
MIC4950	2.7 to 5.5	Adj.	–40 to +125	3300	5000	Power Good, Safe Start, Thermal Shutdown and Current Limit	8-pin SOIC, 10-pin 3 × 4 DFN

POWER MANAGEMENT: Multiple Output Switching Regulators

Part #	Description	Input Voltage Range (V)	Number of Outputs	Output Voltage (V)	Operating Temperature Range (°C)	Control Scheme	Switching Frequency (kHz)	Output Current (mA)	Packages
MIC4742	2 MHz Dual 2A Integrated Switch Buck Regulator	2.9 to 5.5	2	DC/DC: 0.6 to 5.5	–40 to +125	PWM Mode	2000	DC to DC: 2,000/2,000 mA	16-pin 3 × 3MLF , SSOP
MIC4744	4 MHz Dual 2A Integrated Switch Buck Regulator	2.9 to 5.5	2	DC/DC: 0.6 to 5.5	–40 to +125	PWM Mode	4000	DC to DC: 2,000/2,000 mA	16-pin 3 × 3MLF , SSOP
MIC4782	1.8M Hz Dual 2A Integrated Switch	3 to 6	2	DC/DC: 0.61 to 6	–40 to +125	PWM Mode	1800	DC to DC: 2,000/2,000 mA	3 × 3 MLF

POWER MANAGEMENT: Multiple Output Switching Regulators (Continued)

Part #	Description	Input Voltage Range (V)	Number of Outputs	Output Voltage (V)	Operating Temperature Range (°C)	Control Scheme	Switching Frequency (kHz)	Output Current (mA)	Features	Packages
MIC2238	2.5 MHz Dual Phase PWM Buck Regulator	2.5 to 5.5	2	1.28/1.28, 1.8/1.2, 1.8/1.545, 1.8/1.575, 1.8/3.3, 1.8/1.6, 2.5/1.2, 3.3/1.2, 3.3/3.3, Adj./Adj.	–40 to +125	PWM Mode	25000	DC to DC: 800/800 mA	Automatic switching into light load mode of operation	3 × 3 MLF
MIC23250	4 MHz Dual Synchronous Buck Regulator	2.7 to 5.5	2	0.9/1.1, 1.2/1.0, 1.2/1.6, 1.2/1.8, 1.2/2.8, 1.2/3.3, 1.575/1.8, 2.6/3.3, Adj./Adj.	–40 to +125	PWM Mode	4000	DC to DC: 400/400 mA	With HyperLight Load® mode	2 × 2 MLF, 2.5 × 2.5 MLF
MIC23254	4 MHz Dual 400 mA Synchronous Buck Regulator	2.5 to 5.5	2	1.0/1.8	–40 to +125	PWM Mode	4000	DC to DC: 400/400 mA	With Low Input Voltage and HyperLight Load mode	2 × 2 MLF
MIC23450	3 MHz, PWM, 2A Triple Buck Regulator	2.7 to 5.5	3	DC/DC: 0.62 to 3.3	–40 to +125	PWM Mode	3000	DC to DC: 2,000/2,000/2,000 mA	With HyperLight Load mode and Power Good	5 × 5 QFN
MIC24420	2.5A Dual Output PWM Synchronous Buck Regulator	4.5 to 15	2	DC/DC: 0.7 to 10.5	–40 to +125	PWM Mode	1000	DC to DC: 2,500/2,500 mA	Power Good and Soft Start, 180° out of phase operation	4 × 4 QFN
MIC24421	2.5A Dual Output PWM Synchronous Buck Regulator	4.5 to 15	2	DC/DC: 0.7 to 10.5	–40 to +125	PWM Mode	500	DC to DC: 2,500/2,500 mA	Power Good and Soft Start, 180° out of phase operation	4 × 4 QFN
MIC25400	2A Dual Output PWM Synchronous Buck Regulator	4.5 to 13.2	2	DC/DC: 0.7 to 9.4	–40 to +125	PWM Mode	1000	DC to DC: 2,000/2,000 mA	180° out of phase operation	4 × 4 QFN
MIC23158	3 MHz PWM Dual 2A Buck Regulator with Output Auto Discharge + B15	3 to 5.5	2	DC/DC: 1 to 3.3	–40 to +125	PWM Mode	3000	DC to DC: 2,000/2,000 mA	HyperLight Load mode, Power Good and Output Auto-Discharge	3 × 4 MLF
MIC23159	3 MHz PWM Dual 2A Buck Regulator	3 to 5.5	2	DC/DC: 1 to 3.3	–40 to +125	PWM Mode	3000	DC to DC: 2,000/2,000 mA	HyperLight Load mode and Power Good	3 × 4 MLF
MIC23451	3 MHz, 2A Triple Synchronous Buck Regulator	2.7 to 5.5	3	DC/DC: 1 to 3.3	–40 to +125	PWM Mode	3000	DC to DC: 2,000/2,000/2,000 mA	HyperLight Load mode and Power Good	4 × 4 QFN
MIC2230	Dual Synchronous Step-Down DC/DC Regulator	2.5 to 5.5	2	1.28/1.65, 1.8/1.2, 1.8/1.545, 1.8/1.575, 1.8/3.3, 1.8/1.6, 2.5/1.2, 3.3/1.2, 3.3/3.3, Adj./Adj.	–40 to +125	PWM Mode	2500	DC to DC: 800/800 mA	Power Good and Soft Start	3 × 3 MLF
MIC23099	Step-Up/Step-Down Regulators with Battery Monitoring	0.85 to 1.6	2	DC/DC Boost: 1.8 to 3.3, DC/DC Buck 1 to $V_{OUT}1$	–40 to +125	PWM Mode	100 Boost, 1000 Buck	DC to DC Buck: 30mA, DC/DC Boost 200 mA	AA/AAA Battery Monitoring	2.5 × 2.5 QFN
MIC2225	2 MHz DC/DC Converter with LDO	2.7 to 5.5	2	DC/DC: 1.0 to 4.5 LDO: 0.8 to 3.3	–40 to +125	PWM Mode	2000	DC to DC Buck: 600 mA, LDO: 300 mA	Independent enable, >95% efficiency	2 × 2 MLF
MIC23060	4 MHz DC/DC Regulator and LDO Regulator	2.7 to 5.5	2	DC/DC: 1.0 to 4.5 LDO: 0.8 to 3.3	–40 to +125	PWM Mode	4000	DC to DC Buck: 600 mA, LDO: 300 mA	Flexible sequencing feature	2.5 × 2.5 MLF
MIC2800	2 MHz DC/DC Converter with Two Linear Regulators. POR/Power Good pin and LOWQ Mode	2.7 to 5.5	3	DC/DC: 1.8 to 3.3 LDOs: 0.8 to 3.6	–40 to +125	PWM Mode	2000	DC to DC Buck: 600 mA, LDO: 300/300 mA	POR/Power Good pin and LOWQ mode	3 × 3 MLF
MIC2810	2 MHz DC/DC Regulator with Two Linear Regulators. LDO1 has a separate V_{IN} pin and can either post-regulate the DC/DC converter or be connect directly to the main input supply. POR/Power Good Pin.	2.7 to 5.5	3	DC/DC: 1.8 to 3.3 LDOs: 0.8 to 3.6	–40 to +125	PWM Mode	2000	DC to DC Buck: 600 mA, LDO: 300/300 mA	LDO1 has a separate VIN pin and can either post-regulate the DC/DC converter	3 × 3 MLF
MIC2811	2 MHz 600 mA DC/DC Regulators with Triple 300 mA LDOs	2.7 to 5.5	4	DC/DC: 1.0 to 2.0 LDOs: 0.8 to 3.6	–40 to +125	PWM Mode	2000	DC to DC Buck: 600 mA, LDO: 300/300/300 mA	LDO1 and LDO2 have separate Vin	3 × 3 MLF
MIC2821	2 MHz 600 mA DC/DC Regulators with Triple 300 mA LDOs	2.7 to 5.5	4	DC/DC: 1.0 to 2.0 LDOs: 0.8 to 3.6	–40 to +125	PWM Mode	2000	DC to DC Buck: 600 mA, LDO: 300/300/300 mA	Independent enable for all four regulators.	3 × 3 MLF
MIC2826	Quad Output PMIC with HyperLight Load Mode DC/DC, Three LDOs and I^2C Control	2.7 to 5.5	4	DC/DC: 1.0 to 1.8 LDOs: 0.8 to 3.3	–40 to +125	PWM Mode	4000	DC to DC Buck: 500 mA, LDO: 150/150/150 mA	I^2C Control and Dynamic Voltage Scaling 3 LDOs	2.5 × 2.5 MLF
MIC2827	Triple Output PMIC with HyperLight Load Mode DC-DC, Two LDOs and I^2C Control	2.7 to 5.5	3	DC/DC: 1.0 to 1.8 LDOs: 0.8 to 3.3	–40 to +125	PWM Mode	4000	DC to DC Buck: 500 mA, LDO: 150/150 mA	I^2C Control and Dynamic Voltage Scaling 3 LDOs	2.5 × 2.5 MLF
MIC7400	Configurable Five-Channel Buck Regulator Plus One-Boost	2.4 to 5.5	6	1.8V, 1.1V, 1.8V, 1.05V, 1.25V, 12V or Configurable	–40 to +125	PWM Mode	2000 Boost, 1300 Bucks	DC to DC Bucks: 3,000 mA, DC/DC Boost 200 mA	Highly integrated configurable, featuring five buck regulators, one boost regulator and global power good indicator	4.5 × 4.5 QFN
MIC7401	Configurable Five-Channel Buck Regulator Plus One-Boost with HyperLight Load mode, I^2C Control, and Enable	2.4 to 5.5	6	1.8V, 1.1V, 1.8V, 1.05V, 1.25V, 12V or Configurable	–40 to +125	PWM Mode	2000 Boost, 1300 Bucks	DC to DC Bucks: 3,000 mA, DC/DC Boost 200 mA	Highly integrated configurable, featuring five buck regulators, one boost regulator, global power good indicator and enable pin	4.5 × 4.5 QFN

POWER MANAGEMENT: Combination Switching Regulators

Part #	Description	Input Voltage Range (V)	Output Voltage (V)	Operating Temp. Range (°C)	Control Scheme	Switching Frequency (kHz)	Typical Active Current (mA)	Output Current (mA)	Features	Packages
TC1303	Synchronous Buck Regulator, LDO with Power Good	2.7 to 5.5	DC/DC: 0.8 to 4.5 LDO: 1.5 to 3.3	–40 to +85	PFM/PWM	2000	65/600	DC/DC: 500 mA LDO: 300 mA	PFM/PWM auto-switching, Power good output	10-pin MSOP, 10-pin 3 × 3 DFN
TC1304	Synchronous Buck Regulator, LDO	2.7 to 5.5	DC/DC: 0.8 to 4.5 LDO: 1.5 to 3.3	–40 to +85	PFM/PWM	2000	65/600	DC/DC: 500 mA LDO: 300 mA	PFM/PWM auto-switching, Power sequencing	10-pin MSOP, 10-pin 3 × 3 DFN
TC1313	Synchronous Buck Regulator, LDO	2.7 to 5.5	DC/DC: 0.8 to 4.5 LDO: 1.5 to 3.3	–40 to +85	PFM/PWM	2000	65/600	DC/DC: 500 mA LDO: 300 mA	PFM/PWM auto-switching	10-pin MSOP, 10-pin 3 × 3 DFN

POWER MANAGEMENT: Inductorless Offline Switching Regulators

Part #	V_{IN} (V_{AC})	Adjustable V_{OUT} (V)	Fixed V_{OUT} (V)	I_{OUT} Max. (mA)	Load Regulation (%/mA)	Packages
SR086	80–285	9.0–50	3.3	100	0.025	8-Lead SOIC with Heat Slug
SR087	80–285	9.0–50	5	100	0.017	8-Lead SOIC with Heat Slug
SR10	80–285	6.0–28	6.0, 12, 24	60	–	8-Lead SOIC

POWER MANAGEMENT: PWM Controllers

Part #	Supported Topologies	Supported Outputs	Input Voltage Range (V)	Output Voltage (V)	Operating Frequency (Hz)	Operating Temp. Range (°C)	Features	Packages
MIC2101	Sync. Buck	1	4.5 to 38	0.8 to 24	200k to 600k	–40 to +125	HyperLight Load® mode, External Clock Sync, Power Good, Soft Start, Internal Compensation and Voltage Bias	16-pin 3 × 3 MLF®
MIC2102	Sync. Buck	1	4.5 to 38	0.8 to 24	200k to 600k	–40 to +125	Power Good, Soft Start, Internal Compensation and Voltage Bias	16-pin 3 × 3 MLF
MIC2103	Sync. Buck	1	4.5 to 75	0.8 to 24	200k to 600k	–40 to +125	HyperLight Load mode, External Clock sync, Power Good, Soft Start, Internal Compensation and Voltage Bias	16-pin 3 × 3 MLF
MIC2104	Sync. Buck	1	4.5 to 75	0.8 to 24	200k to 600k	–40 to +125	Power Good, Soft Start, Internal Compensation and Voltage Bias	16-pin 3 × 3 MLF
MIC2124	Sync. Buck	1	3.0 to 18	0.8 to 12	300k	–40 to +125	Soft Start, Internal Voltage Bias	10-pin MSOP
MIC2130	Sync. Buck	1	8.0 to 40	0.7 to 24	150k or 400k	–40 to +125	Power Good, Soft Start, Internal Voltage Bias	16-pin e-TSSOP, 16-pin 4 × 4 MLF
MIC2131	Sync. Buck	1	8.0 to 40	0.7 to 24	150k or 400k	–40 to +125	Power Good, Soft Start, Internal Voltage Bias	16-pin e-TSSOP, 16-pin 4 × 4 MLF
MIC2150	Sync. Buck	2	4.5 to 14.5	0.7 to 5.5	500k	–40 to +125	Power Good, Soft Start, Internal Voltage Bias	24-pin 4 × 4 MLF
MIC2151	Sync. Buck	2	4.5 to 14.5	0.7 to 5.5	300k	–40 to +125	Power Good, Soft Start, Internal Voltage Bias	24-pin 4 × 4 MLF
MIC2155	Sync. Buck	1	4.5 to 14.5	0.7 to 3.6	500k	–40 to +125	External Clock Sync, Power Good, Soft Start	32-pin 5 × 5 MLF
MIC2164	Sync. Buck	1	3.0 to 28	0.8 to 5.5	300k, 600k, 1M	–40 to +125	Soft Start, Internal Compensation and Voltage Bias	10-pin MSOP
MIC2164C	Sync. Buck	1	3.0 to 28	0.8 to 5.5	270k	–40 to +125	Soft Start, Internal Compensation and Voltage Bias	10-pin MSOP
MIC2165	Sync. Buck	1	4.5 to 28	0.8 to 5.5	600k	–40 to +125	Hyper Speed Control® architecture, Power Good, Soft Start, Internal Voltage Bias	10-pin MSOP
MIC2166	Sync. Buck	1	4.5 to 28	0.8 to 5.5	600k	–40 to +125	Power Good, Soft Start, Internal Compensation and Voltage Bias	10-pin MSOP
MIC2168	Sync. Buck	1	3.0 to 14.5	0.8 to 5.5	1.0M	–40 to +125	Soft Start, Internal Compensation and Voltage Bias	10-pin MSOP
MIC2169	Sync. Buck	1	3.0 to 14.5	0.8 to 5.5	500k	–40 to +125	Soft Start, Internal Voltage Bias	10-pin MSOP
MIC2169A	Sync. Buck	1	3.0 to 14.5	0.8 to 5.5	500k	–40 to +125	Soft Start, Internal Voltage Bias	10-pin MSOP
MIC2169B	Sync. Buck	1	3.0 to 14.5	0.8 to 5.5	500k	–40 to +125	Soft Start, Internal Voltage Bias	10-pin MSOP
MIC2176	Sync. Buck	1	4.5 to 75	0.8 to 24	100k, 200k, or 300k	–40 to +125	Soft Start, Internal Compensation & Voltage Bias	10-pin MSOP
MIC2182	Sync. Buck	1	4.5 to 32	1.25 to 6.0	300k	–40 to +85	Skip Mode, External Clock Sync, Soft Start, Internal Voltage Bias	16-pin SOP. 16-pin SSOP
MIC2183	Sync. Buck	1	2.9 to 14	1.3 to 12	200k/400k	–40 to +125	External Clock Sync, Soft Start, Internal Voltage Bias	16-pin SOP. 16-pin QSOP
MIC2184	Async. Buck	1	2.9 to 14	1.3 to 12	200k/400k	–40 to +125	External Clock Sync, Soft Start, Internal Voltage Bias	16-pin SOP. 16-pin QSOP
MIC2185	Boost, SEPIC, Ćuk	1	2.9 to 14	3.3 to 5.5	200k/400k	–40 to +85	Skip Mode, External Clock Sync, Soft Start, Internal Voltage Bias	16-pin SOIC, 16-pin QSOP
MIC2186	Boost, SEPIC, Flyback	1	2.9 to 14	3.3 to 5.5	100/200/400k	–40 to +85	Skip Mode, External Clock Sync, Soft Start, Internal Voltage Bias	16-pin SOP. 16-pin QSOP
MIC2193	Sync. Buck	1	2.9 to 14	3.3 to 5.5	400k	–40 to +125	Internal Voltage Bias, UVLO	8-pin SOIC
MIC2194	Async. Buck	1	2.9 to 14	3.3 to 5.5	400k	–40 to +125	Internal voltage Bias, UVLO, Current Limit/Short Circuit Protection	8-pin SOIC
MIC2196	Boost, SEPIC	1	2.9 to 14	3.3 to 5.5	400k	–40 to +125	Internal voltage Bias, UVLO, Current Limit/Short Circuit Protection	8-pin SOIC
MIC2198	Sync. Buck	1	4.5 to 32	0.8 to 6.0	500k	–40 to +125	Internal voltage Bias, UVLO, Current Limit/Short Circuit Protection	12-pin 4x4 MLF
MIC2199	Buck	1	4.5 to 32	0.8 to 6.0	300k	–40 to +125	Internal voltage Bias, UVLO, Current Limit/Short Circuit Protection	12-pin 4x4 MLF
MIC3808	Push-Pull, Half Bridge, Full Bridge	1	8.3 to 15	–	Adj. to 1M	–40 to +85	Soft Start, Internal Voltage Bias, UVLO, Current Limit/Short Circuit Protection	8-pin SOP, 8-pin MSOP
MIC3809	Push-Pull, Half Bridge, Full Bridge	1	4.1 to 15	–	Adj. to 1M	–40 to +85	Soft Start, Internal Voltage Bias, UVLO, Current Limit/Short Circuit Protection	8-pin SOP, 8-pin MSOP

POWER MANAGEMENT: PWM Controllers (Continued)

Part #	Supported Topologies	Supported Outputs	Input Voltage Range (V)	Output Voltage (V)	Operating Frequency (Hz)	Operating Temp. Range (°C)	Features	Packages
MIC3838	Push-Pull, Half Bridge, Full Bridge	1	8.3 to 15	–	Adj. to 1M	–40 to +85	Soft Start, Internal Voltage Bias, UVLO, Current Limit/Short Circuit Protection	10-pin MSOP
MIC3839	Push-Pull, Half Bridge, Full Bridge	1	4.1 to 15	–	Adj. to 1M	–40 to +85	Soft Start, Internal Voltage Bias, UVLO, Current Limit/Short Circuit Protection	10-pin MSOP
MIC38C42	Forward, Flyback	1	15.5 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin MSOP, 8-pin SOIC, 14-pin SOIC
MIC38C43	Forward, Flyback	1	9.0 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin MSOP, 8-pin SOIC, 14-pin SOIC
MIC38C44	Forward, Flyback	1	15.5 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin MSOP, 8-pin SOIC, 14-pin SOIC
MIC38C45	Forward, Flyback	1	9.0 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin MSOP, 8-pin SOIC, 14-pin SOIC
MIC38HC42	Forward, Flyback	1	15.5 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin SOIC, 14-pin SOIC
MIC38HC43	Forward, Flyback	1	9.0 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin SOIC, 14-pin SOIC
MIC38HC44	Forward, Flyback	1	15.5 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin SOIC, 14-pin SOIC
MIC38HC45	Forward, Flyback	1	9.0 to 20	–	Adj. to 500k	–40 to +85	Forward,Flyback Supported Topologies	8-pin PDIP, 14-pin PDIP, 8-pin SOIC, 14-pin SOIC
MIC9130	Forward, Flyback	1	9.0 to 180	–	Adj. to 1.5M	–40 to +125	Forward,Flyback Supported Topologies, External Clock Sync	16-pin SOIC, 16-pin QSOP
MIC9131	Forward, Flyback	1	9.0 to 180	–	Adj. to 1M	–40 to +125	Forward,Flyback Supported Topologies, External Clock Sync	16-pin SOIC, 16-pin QSOP
MCP1630	Flyback, Boost, SEPIC, Ćuk	1	3.0 to 5.5	–	Sync. to 1M	–40 to +125	External Clock Sync, Current Limit/Short Circuit Protection	8-pin 2x3 DFN, 8-pin MSOP
MCP1630V	Flyback, Boost, SEPIC, Ćuk	1	3.0 to 5.5	–	Sync. to 1M	–40 to +125	External Clock Sync, Current Limit/Short Circuit Protection	8-pin 2x3 DFN, 8-pin MSOP
MCP1631	Flyback, Boost, SEPIC, Ćuk	1	3.0 to 5.5	–	Sync. to 2M	–40 to +125	External Clock Sync, Current Limit/Short Circuit Protection	20-pin TSSOP, 20-pin SSOP, 20 pin 4 × 4 QFN
MCP1631V	Flyback, Boost, SEPIC, Ćuk	1	3.0 to 5.5	–	Sync. to 2M	–40 to +125	External Clock Sync, Current Limit/Short Circuit Protection	20-pin TSSOP, 20-SSOP, 20-pin 4 × 4 QFN
MCP1631HV	Flyback, Boost, SEPIC, Ćuk	1	3.5 to 16	–	Sync. to 2M	–40 to +125	External Clock Sync, Current Limit/Short Circuit Protection	20-pin TSSOP, 20-SSOP
MCP1631VHV	Flyback, Boost, SEPIC, Ćuk	1	3.5 to 16	–	Sync. to 2M	–40 to +125	External Clock Sync, Current Limit/Short Circuit Protection	20-pin TSSOP, 20-SSOP
MCP1632	Flyback, Boost, SEPIC, Ćuk	1	3.0 to 6	–	300k/600k	–40 to +125	Soft Start, Internal Voltage Bias, UVLO, Current Limit/Short Circuit Protection	8-pin MSOP, 8-pin 2 × 3 DFN
MCP19035	Sync. Buck	1	4.5 to 30	–	300k/600k	–40 to +125	Power Good, Soft Start, Internal Voltage Bias, UVLO, Current Limit/Short Circuit Protection	10-pin 3 × 3 DFN

POWER MANAGEMENT: Hybrid PWM Controllers – Digitally Enhanced Power Analog

Part #	Input Voltage Range (V)	Output Voltage (V)	Operating Temp. Range (°C)	Topologies Supported	Integrated MCU	Program Memory Size (kWords)	RAM (bytes)	Features	Packages
MCP19110	4.5 to 32	0.5 to 90% * V_{IN}	–40 to +125	Buck	✓	4	256	Synchronous Buck Analog Controller with integrated MCU, LDO and Synchronous MOSFET Drivers. User-Configurable/Programmable including MOSFET Dead Time, Switching Frequency, Analog Loop Compensation and Protection Thresholds	24-pin 4 × 4 QFN
MCP19111	4.5 to 32	0.5 to 90% * V_{IN}	–40 to +125	Buck	✓	4	256	Contains all features of the MCP19110, with four additional GPIO pins and a debug interface.	28-pin 5 × 5 QFN
MCP19114	4.5 to 42	0.5 to V_{IN}*n (dependent on topology)	–40 to +125	Boost, Flyback, SEPIC, Ćuk	✓	4	256	High-Speed Analog-based PWM Controller with integrated MCU, LDO and Synchronous MOSFET Drivers. User-Configurable/Programmable including MOSFET Dead Time, Switching Frequency, Analog Loop Compensation and Protection Thresholds. An I^2C communication interface is also integrated.	24-pin 4 × 4 QFN
MCP19115	4.5 to 42	0.5 to V_{IN}*n (dependent on topology)	–40 to +125	Boost, Flyback, SEPIC, Ćuk	✓	4	256	Contains all features of the MCP19114, with four additional GPIO pins and a debug interface.	28-pin 5 × 5 QFN
MCP19116	4.5 to 42	0.5 to V_{IN}*n (dependent on topology)	–40 to +125	Boost, Flyback, SEPIC, Ćuk	✓	8	336	Contains all features of MCP19114, with improved current control accuracy, additional code space, and other added benefits.	24-pin 4 × 4 QFN
MCP19117	4.5 to 42	0.5 to V_{IN}*n (dependent on topology)	–40 to +125	Boost, Flyback, SEPIC, Ćuk	✓	8	336	Contains all features of the MCP19116, with four additional GPIO pins and a debug interface.	28-pin 5 × 5 QFN
MCP19118	4.5 to 40	0.5 to 90% * V_{IN}	–40 to +125	Buck	✓	4	256	40V DC operation, 48V transient capability, Synchronous Buck Analog Controller with integrated MCU, LDO and Synchronous MOSFET Drivers. User-Configurable/Programmable including MOSFET Dead Time, Switching Frequency, Analog Loop Compensation and Protection Thresholds	24-pin 4 × 4 QFN
MCP19119	4.5 to 40	0.5 to 90% * V_{IN}	–40 to +125	Buck	✓	4	256	Contains all features of the MCP19119, with four additional GPIO pins and a debug interface.	28-pin 5 × 5 QFN

POWER MANAGEMENT: Power Modules

Part #	Input Voltage Range (V)	Output Voltage (V)	Operating Temp. Range (°C)	Control Scheme	Switching Frequency (kHz)	V_{OUT} Max. (V)	Output Current (A)	Features	Packages
MIC28304-1	4.5 to 70	Adj.	–40 to +125	COT	600	24	3	HyperLight Load® Mode, Power Good, Soft Start	64-pin 12 × 12 QFN
MIC28304-2	4.5 to 70	Adj.	–40 to +125	COT	600	24	3	Hyper Speed Control® Architecture, Power Good, Soft Start	64-pin 12 × 12 QFN
MIC45205-1	4.5 to 26	Adj.	–40 to +125	COT	200–600	5.5	6	HyperLight Load Mode, Power Good, Soft Start	52-pin 8 × 8 QFN
MIC45205-2	4.5 to 26	Adj.	–40 to +125	COT	200–600	5.5	6	Hyper Speed Control Architecture, Power Good, Soft Start	52-pin 8 × 8 QFN
MIC45208-1	4.5 to 26	Adj.	–40 to +125	COT	200–600	5.5	10	HyperLight Load Mode, Power Good, Soft Start	52-pin 10 × 10 QFN
MIC45208-2	4.5 to 26	Adj.	–40 to +125	COT	200–600	5.5	10	Hyper Speed Control Architecture, Power Good, Soft Start	52-pin 10 × 10 QFN
MIC45212-1	4.5 to 26	Adj.	–40 to +125	COT	200–600	5.5	14	HyperLight Load Mode, Power Good, Soft Start	64-pin 12 × 12 QFN
MIC45212-2	4.5 to 26	Adj.	–40 to +125	COT	200–600	5.5	14	Hyper Speed Control Architecture, Power Good, Soft Start	64-pin 12 × 12 QFN
MIC33030	2.7 to 5.5	1.2, 1.8, Adj.	–40 to +125	PWM	8,000	3.6	0.4	HyperLight Load Mode	10-pin 2.5 × 2.0 MLF®
MIC33050	2.7 to 5.5	1.0, 1.2, 1.8, 3.3, Adj.	–40 to +125	PWM	4,000	3.3	0.6	HyperLight Load Mode	12-pin 3 × 3 MLF
MIC33153	2.7 to 5.5	1.2, Adj.	–40 to +125	PWM	4,000	3.6	1.2	HyperLight Load Mode, Power Good, Soft Start	14-pin 3 × 3.5 MLF
MIC3385	2.7 to 5.5	1.5, Adj.	–40 to +125	PWM	8,000	5.5	0.6	LowQ	14-pin 3 × 3.5 MLF
MIC28303-1	4.5 to 50	Adj.	–40 to +125	COT	600	24	3	HyperLight Load Mode, Power Good, Soft Start	64-pin 12 × 12 QFN
MIC28303-2	4.5 to 50	Adj.	–40 to +125	COT	600	24	3	Hyper Speed Control Architecture, Power Good, Soft Start	64-pin 12 × 12 QFN
MIC45116-1	4.5 to 20	Adj.	–40 to +125	COT	600	17	6	HyperLight Load Mode, Power Good, Soft Start	52-pin 8 × 8 QFN
MIC45116-2	4.5 to 20	Adj.	–40 to +125	COT	600	17	6	Hyper Speed Control Architecture, Power Good, Soft Start	52-pin 8 × 8 QFN
MIC45404	4.5 to 19	Selectable	–40 to +125	Fixed	400–790	3.3	5	Power Good, Soft Start	64-pin 6 × 10 QFN

POWER MANAGEMENT: Charge Pump DC-to-DC Converters

Part #	Configuration	Input Voltage Range (V)	Output Voltage (V)	Typical Output Current (mA)	Switching Frequency (kHz)	Supply Current (Is, floating output µA, 25°C)	Output Resistance (Ω, at typical output current, 25°C)	Power Conversion Efficiency (%)	Features	Packages
Inverting or Doubling Charge Pumps										
TC682	Inverted doubling	2.4 to 5.5	–2*V_{IN}	10	12	185	140	92% at 2.5 mA	–	8-pin SOIC and 8-pin PDIP
TC1240A	Doubling	2.5 to 5	2*V_{IN}	20	80	550	12	94% at 5 mA	Shutdown	6-pin SOT-23
TC7660S	Inverting or doubling	1.5 to 12	–V_{IN} or 2* V_{IN}	20	10 or 45	80	60	98% at 1 mA	Boost pin increases switching frequency	8-pin SOIC and 8-pin PDIP
TC7660H	Inverting or doubling	1.5 to 10	–V_{IN} or 2* V_{IN}	20	120	1000	55	85% at 10 mA	High-voltage oscillator	8-pin SOIC and 8-pin PDIP
TC7662B	Inverting or doubling	1.5 to 15	–V_{IN} or 2* V_{IN}	20	10 or 35	80	65	96% at 1 mA	Boost pin increases switching frequency	8-pin SOIC and 8-pin PDIP
TC7662A	Inverting or doubling	3 to 18	–V_{IN} or 2* V_{IN}	40	12	190	50	97% at 7.5 mA	No low-voltage terminal required	8-pin PDIP
TC962	Inverting or doubling	3 to 18	–V_{IN} or 2* V_{IN}	80	12 or 24	190	35	97% at 7.5 mA	Boost pin increases switching frequency	16-pin SOIC, 8-pin PDIP
Regulated Charge Pumps										
MCP1256	Regulated	1.8 to 3.6	3.3	100	650	2300	N/A	85% at 50 mA	Soft start, shutdown, power good signal and sleep mode	10-pin MSOP and 10-pin 3 × 3 DFN
MCP1257	Regulated	1.8 to 3.6	3.3	100	650	2300	N/A	85% at 50 mA	Soft start, shutdown, low battery warning signal, and sleep mode	10-pin MSOP and 10-pin 3 × 3 DFN
MCP1258	Regulated	1.8 to 3.6	3.3	100	650	2300	N/A	85% at 50 mA	Soft start, shutdown, power good signal and bypass mode	10-pin MSOP and 10-pin 3 × 3 DFN
MCP1259	Regulated	1.8 to 3.6	3.3	100	650	2300	N/A	85% at 50 mA	Soft start, shutdown, low battery warning signal, and bypass mode	10-pin MSOP and 10-pin 3 × 3 DFN
MCP1252	Regulated	2.0 to 5.5	3.3, 5.0, or adjustable	150	650	60	N/A	81% at 10 mA	Shutdown, power good, regulated output, adjustable version	8-pin MSOP
MCP1253	Regulated	2.0 to 5.5	3.3, 5.0, or adjustable	150	1000	60	N/A	81% at 10 mA	Shutdown, power good, regulated output, adjustable version	8-pin MSOP

POWER MANAGEMENT: CPU/System Supervisors

Part #	Type	Watchdog Timer	Manual Reset	Power Fail	Operating Temp. Range (°C)	V_{CC} Range (V)	Nominal Reset Voltage (V)	Reset Type	Output	Typical Reset Pulse Width (ms)	Typical Supply Current (µA)	Packages
MCP100	Supervisor	–	–	–	–40 to +85	1.0–5.5	2.7, 3, 3.15, 4.5, 4.6, 4.75, 4.85	Active Low	Push-Pull	350	45	3-pin SOT-23, 3-pin TO-92
MCP101	Supervisor	–	–	–	–40 to +85	1.0–5.5	2.7, 3, 3.15, 4.5, 4.6, 4.75, 4.85	Active High	Push-Pull	350	45	3-pin SOT-23, 3-pin TO-92
MCP102	Supervisor	–	–	–	–40 to +125	1.0–5.5	1.95 (I-Temp), 2.4, 2.7, 3, 3.15, 4.5, 4.75	Active Low	Push-Pull	120	1	3-pin SC-70, 3-pin SOT-23, 8-pin SOIC 150 mil, 3-pin TO-92
MCP103	Supervisor	–	–	–	–40 to +125	1.0–5.5	1.95 (I-Temp), 2.4, 2.7, 3, 3.15, 4.5, 4.75	Active Low	Push-Pull	120	1	3-pin SC-70, 3-pin SOT-23
MCP120	Supervisor	–	–	–	–40 to +85	1.0–5.5	2.7, 3, 3.15, 4.5, 4.6, 4.75, 4.85	Active Low	Open-Drain	350	45	3-pin SOT-23, 8-pin SOIC 150 mil, 3-pin TO-92
MCP121	Supervisor	–	–	–	–40 to +125	1.0–5.5	1.95 (I-Temp), 2.4, 2.7, 3, 3.15, 4.5, 4.75	Active Low	Open-Drain	120	1	3-pin SC-70, 3-pin SOT-23, 8-pin SOIC 150 mil, 3-pin TO-92
MCP130	Supervisor	–	–	–	–40 to +85	1.0–5.5	2.7, 3, 3.15, 4.5, 4.6, 4.75, 4.85	Active Low	Open-Drain	350	45	3-pin SOT-23, 8-pin SOIC 150 mil, 3-pin TO-92
MCP131	Supervisor	–	–	–	–40 to +125	1.0–5.5	1.95 (I-Temp), 2.4, 2.7, 3, 3.15, 4.5, 4.75	Active Low	Open-Drain	120	1	3-pin SC-70, 3-pin SOT-23, 8-pin SOIC 150 mil, 3-pin TO-92
MCP1316	Supervisor	✓	✓	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0-2.4V=I-Temp, 2.4-4.7=Ext)	Active Low	Push-Pull	200	1	5-pin SOT-23
MCP1316M	Supervisor	✓	✓	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0-2.4V=I-Temp, 2.4-4.7=Ext)	Active Low	Open-Drain	200	1	5-pin SOT-23
MCP1317	Supervisor	✓	✓	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0-2.4V=I-Temp, 2.4-4.7=Ext)	Active High	Push-Pull	200	1	5-pin SOT-23
MCP1318	Supervisor	✓	–	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0-2.4V=I-Temp, 2.4-4.7=Ext)	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	200	1	5-pin SOT-23
MCP1318M	Supervisor	✓	–	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0-2.4V=I-Temp, 2.4-4.7=Ext)	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	200	1	5-pin SOT-23
MCP1319	Supervisor	–	✓	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0-2.4V=I-Temp, 2.4-4.7=Ext)	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	200	1	5-pin SOT-23
MCP1319M	Supervisor	–	✓	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0-2.4V=I-Temp, 2.4-4.7=Ext)	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	200	1	5-pin SOT-23
MCP1320	Supervisor	✓	✓	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0–2.4V=I-Temp, 2.4–4.7=Ext)	Active Low	Open-Drain	200	1	5-pin SOT-23
MCP1321	Supervisor	✓	–	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0–2.4V=I-Temp, 2.4–4.7=Ext)	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	200	1	5-pin SOT-23
MCP1322	Supervisor	–	✓	–	–40 to +125	1.0–5.5	2.9, 4.6, (2.0–2.4V=I-Temp, 2.4–4.7=Ext)	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	200	1	5-pin SOT-23
MCP809	Supervisor	–	–	–	–40 to +85	1.0–5.5	2.7, 3.0, 3.15, 4.5, 4.6, 4.75, 4.85	Active Low	Push-Pull	350	45	3-pin SOT-23
MCP810	Supervisor	–	–	–	–40 to +85	1.0–5.5	2.7, 3.0, 3.15, 4.5, 4.6, 4.75, 4.85	Active High	Push-Pull	350	45	3-pin SOT-23
TC1232	Supervisor	✓	✓	–	–40 to +85	4.5–5.5	4.5, 4.75	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	610	50	8-pin PDIP, 16-pin SOIC 300 mil, 8-pin SOIC 150 mil
TC1270A	Supervisor	–	✓	–	–40 to +125	1.0–5.5	2.7, 3, 3.15, 4.5, 4.75	Active Low	Push-Pull	280	7	4-pin SOT-143, 5-pin SOT-23
TC1270AN	Supervisor	–	✓	–	–40 to +125	1.0–5.5	2.7, 3, 3.15, 4.5, 4.75	Active Low	Open-Drain	280	7	4-pin SOT-143, 5-pin SOT-23
TC1271A	Supervisor	–	✓	–	–40 to +125	1.0–5.5	2.7, 3, 3.15, 4.5, 4.75	Active High	Push-Pull	280	7	4-pin SOT-143, 5-pin SOT-23
TC1272A	Supervisor	–	–	–	–40 to +125	1.0–5.5	4.50, 4.25, 3.89, 3.00, 2.85, 2.55, 2.25	Active Low	Push-Pull	140	12	3-pin SOT-23
TC32M	Supervisor	✓	–	–	–40 to +85	4.5–5.5	4.25	Active Low	Open-Drain	500	50	3-pin TO-92, 3-pin SOT-223
TCM809	Supervisor	–	–	–	–40 to +125	1.0–5.5	4.50, 4.25, 3.89, 3.00, 2.85, 2.55, 2.25	Active Low	Push-Pull	140	12	3-pin SC-70, 3-pin SOT-23
TCM810	Supervisor	–	–	–	–40 to +125	1.0–5.5	4.50, 4.25, 3.89, 3.00, 2.85, 2.55, 2.25	Active High	Push-Pull	140	12	3-pin SC-70, 3-pin SOT-23
MIC705	Supervisor	✓	✓	✓	–40 to +85	1.5–5.5	4.65	Active Low	Push-Pull	140	30	8-pin SOIC
MIC706	Supervisor	✓	✓	✓	–40 to +85	1.5–5.5	4.4	Active Low	Push-Pull	140	30	8-pin SOIC
MIC707	Supervisor	–	–	✓	–40 to +85	1.5–5.5	4.65	Active Low/High or High/Low	Push-Pull	140	30	8-pin SOIC
MIC708	Supervisor	–	–	✓	–40 to +85	1.5–5.5	4.4	Active Low/High or High/Low	Push-Pull	140	30	8-pin SOIC
MIC803	Supervisor	–	–	–	–40 to +125	1.0–5.5	2.63, 2.93, 3.00, 3.08, 4.00, 4.10, 4.38, 4.63	Active Low	Open-Drain	20/140/1100	5	3-pin SOT23, 3-pin SC70
MIC809	Supervisor	–	–	–	–40 to +85	1.4–5.5	2.63, 2.93, 3.08, 4.00, 4.38, 4.63	Active Low	Push-Pull	140	5	3-pin SOT23, 3-pin SC70
MIC809-5	Supervisor	–	✓	–	–40 to +125	1.4–5.5	2.93	Active Low	Push-Pull	30	0	3-pin SOT23, 3-pin SC70

POWER MANAGEMENT: CPU/System Supervisors (Continued)

Part #	Type	Watchdog Timer	Manual Reset	Power Fail	Operating Temp. Range (°C)	Vcc Range (V)	Nominal Reset Voltage (V)	Reset Type	Output	Typical Reset Pulse Width (ms)	Typical Supply Current (µA)	Packages
MIC810	Supervisor	–	–	–	–40 to +85	1.4–5.5	2.63, 2.93, 3.08, 4.00, 4.38, 4.63	Active Low/High or High/Low	Push-Pull	140	5	3-pin SOT23, 3-pin SC70
MIC811	Supervisor	–	✓	–	–40 to +85	1.4–5.5	2.63, 2.93, 3.08, 4.00, 4.38, 4.63	Active Low	Push-Pull	140	5	SOT143
MIC812	Supervisor	–	✓	–	–40 to +85	1.4–5.5	2.63, 2.93, 3.08, 4.00, 4.38, 4.63	Active Low/High or High/Low	Push-Pull	140	5	SOT143
MIC1810	Supervisor	–	–	–	–40 to +85	1.5–5.5	4.12, 4.37, 4,62	Active Low	Push-Pull	100	5	3-pin SOT23
MIC1815	Supervisor	–	–	–	–40 to +85	1.5–5.5	2.55, 2.88	Active Low	Push-Pull	100	5	3-pin SOT23
MIC1232	Supervisor	✓	–	–	–40 to +85	4.5–5.5	4.37, 4.62	Active Low/High or High/Low	Push-Pull	250	18	8-pin SOIC, 8-pin PDIP
MIC1832	Supervisor	✓	✓	–	–40 to +85	1.4–5.5	2.55, 2.88	Active Low/High or High/Low	Push-Pull	250	15	8-pin SOIC, 8-pin PDIP
MIC2755	Supervisor	–	✓	–	–40 to +85	1.5–5.5	1.24	Active Low	Open-Drain	700	2	8-pin MSOP
MIC2775	Supervisor	–	✓	–	–40 to +85	1.5–5.5	1.69, 2.25, 2.34, 2.53, 2.67, 2.81, 2.93, 3.09, 4.43, 4.68	Active Low/High or High/Low	Push-Pull	140	5	5-pin SOT23
MIC2776N	Supervisor	–	✓	–	–40 to +85	1.5–5.5	0.3	Active Low	Open-Drain	140	3	5-pin SOT23
MIC2776H	Supervisor	–	✓	–	–40 to +85	1.5–5.5	0.3	Active High	Push-Pull	140	3	5-pin SOT23
MIC2776L	Supervisor	–	✓	–	–40 to +85	1.5–5.5	0.3	Active Low	Push-Pull	140	3	5-pin SOT23
MIC2778	Supervisor	–	–	–	–40 to +85	1.5–5.5	1.24 with adjustable hysteresis	Active Low	Open-Drain	140	1	5-pin SOT23
MIC2779H	Supervisor	–	–	–	–40 to +85	1.5–5.5	1.24 with adjustable hysteresis	Active High	Push-Pull	140	1	5-pin SOT23
MIC2779L	Supervisor	–	–	–	–40 to +85	1.5–5.5	1.24 with adjustable hysteresis	Active Low	Push-Pull	140	1	5-pin SOT23
MIC2785	Supervisor	–	✓	–	–40 to +85	1.5–5.5	1.62	Active Low	Push-Pull	0.025	5	6-pin 1.2 × 1.2 QFN
MIC6315	Supervisor	–	✓	–	–40 to +85	1.4–5.5	2.63, 2.93, 3.00, 3.08, 4.00, 4.10, 4.38, 4.63	Active Low	Open-Drain	20/140/1100	5	4-pin SOT143
MIC8114	Supervisor	–	✓	–	–40 to +85	1.0–5.5	3.08	Active Low	Push-Pull	790	5	4-pin SOT143
MIC8115	Supervisor	–	✓	–	–40 to +85	1.0–5.5	3.08	Active Low	Push-Pull	1100	5	4-pin SOT143
MIC826	Supervisor	✓	✓	–	–40 to +125	1.0–5.5	1.665, 2.188, 2.315, 2.625, 2.925, 3.075, 4.375, 4.625	Active Low/High or High/Low	Push-Pull	140	4	6-pin 1.6 × 1.6 DFN
MIC706P/R/S/T	Supervisor	✓	✓	✓	–40 to +85	1.5–5.5	2.63, 2.93, 3.08	Active Low	Push-Pull	140	30	8-pin SOIC
MIC708P/R/S/T	Supervisor	–	–	✓	–40 to +85	1.5–5.5	2.63, 2.93, 3.08	Active Low/High or High/Low	Push-Pull	140	30	8-pin SOIC
TC51	Detector	–	–	–	–40 to +85	0.7–10	2.94, 2.65, 2.16 (1.6-6V)	Active Low	Open-Drain	50	2	3-pin SOT-23A
TC54	Detector	–	–	–	–40 to +85	0.7–10	4.21, 4.12, 2.94, 2.84, 2.65, 2.06, 1.37 (1.4-6V)	Active Low	CMOS Push-Pull or Open drain	0	1	3-pin SOT-89, 3-pin T0-92, 5-pin SOT-23, 3-pin SOT-23A
MCP111	Detector	–	–	–	–40 to +125	1.0–5.5	1.87(Itemp), 2.29, 2.59, 2.86, 2.87, 3.03, 4.31, 4.56	Active Low	Open-Drain	0	1	3-pin SC-70, 3-pin SOT-89, 3-pin SOT-23, 3-pin T0-92
MCP112	Detector	–	–	–	–40 to +125	1.0–5.5	1.87(Itemp), 2.29, 2.59, 2.86, 2.87, 3.03, 4.31, 4.56	Active Low	Push-Pull	0	1	3-pin SC-70, 3-pin SOT-89, 8-pin PDIP, 3-pin SOT-23, 3-pin T0-92
TC52	Detector	–	–	–	–40 to +85	1.5–10	4.41, 2.65 (1.5-5V)	Active Low	Open-Drain	0	3	5-pin SOT-23
TC53	Detector	–	–	–	–40 to +85	1.5–10	2.84, 2.65, 2.16 (1.6-6V, 7V)	Active Low	CMOS Push-Pull or Open drain	0	2	5-pin SOT-23
MIC2772	Dual	–	✓	–	–40 to +85	1.0–5.5	2.93, 3.08, 4.38, 4.63	Active Low	Open-Drain	20/140/1100	10	8-pin 2 × 2 MLF
MIC2774N	Dual	–	✓	–	–40 to +85	1.5–5.5	1.69, 2.25, 2.34, 2.53, 2.67, 2.81, 2.93, 3.09, 4.43, 4.68	Active Low	Open-Drain	140	3.5	5-pin SOT23
MIC2774H	Dual	–	✓	–	–40 to +85	1.5–5.5	1.69, 2.25, 2.34, 2.53, 2.67, 2.81, 2.93, 3.09, 4.43, 4.68	Active High	Push-Pull	140	3.5	5-pin SOT23
MIC2774L	Dual	–	✓	–	–40 to +85	1.5–5.5	1.69, 2.25, 2.34, 2.53, 2.67, 2.81, 2.93, 3.09, 4.43, 4.68	Active Low	Push-Pull	140	3.5	5-pin SOT23
MIC2777	Dual	–	–	–	–40 to +85	1.5–5.5	1.69, 2.25, 2.34, 2.53, 2.67,2.81, 2.93, 3.09, 4.43, 4.68	Active Low/High or High/Low	Push-Pull	140	3.5	5-pin SOT23
MIC2782	Push Button	–	Dual	–	–40 to +85	1.5–5.5	Custom options	Active Low	Open-Drain	500/1000/2000	2.2	6-pin 0.8 × 1.2 CSP
MIC2790	Push Button	–	✓	–	–40 to +125	1.5–5.5	0.4	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	1.05	40	8-pin 2 × 2 DFN
MIC2791	Push Button	–	✓	–	–40 to +125	1.5–5.5	0.4	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	1.05	40	6-pin 1.6 × 1.6 DFN
MIC2793	Push Button	–	✓	–	–40 to +125	1.5–5.5	0.4	Active Low/High or High/Low	Dual Output Open-Drain and/or Push-Pull	1.05	40	8-pin 2 × 2 DFN

POWER MANAGEMENT: Power MOSFET Drivers

Part #	Drivers	Configuration	Peak Output Current (source/sink, A)	Maximum Supply Voltage (V)	Output Resistance (source/sink, Ω)	Propagation Delay (T_{d1}/T_{d2}, ns)	Rise/Fall Time (T_r/T_f, ns)	Capacitive Load Drive	Features	Packages
Low-Side Power MOSFET Drivers										
MCP1401	Single	Inverting	0.5/0.5	18	12/10	35/35	19/15	470 pF in 19 ns	Small footprint	5-pin SOT-23
MCP14A0051	Single	Inverting	0.5/0.5	18	6.5/4.5	40/31	51/39	1000 pF in 40 ns	Enable pin, small footprint	6-pin SOT-23, 6-pin 2 × 2 DFN
MCP14A0052	Single	Non-inverting	0.5/0.5	18	6.5/4.5	40/31	51/39	1000 pF in 40 ns	Enable pin, small footprint	6-pin SOT-23, 6-pin 2 × 2 DFN
MCP1402	Single	Non-inverting	0.5/0.5	18	12/10	35/35	19/15	470 pF in 19 ns	Small footprint	5-pin SOT-23
TC1410N	Single	Non-inverting	0.5/0.5	16	16/16	30/30	25/25	500 pF in 25 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP
TC1411N	Single	Non-inverting	1.0/1.0	16	8/8	30/30	25/25	1000 pF in 25 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP
MIC4416	Single	Non-Inverting	1.2/1.2	18	3.5/3.5	42/42	3.5/3.5	1000 pF in 24 ns		SOT-143
MIC4417	Single	Inverting	1.2/1.2	18	3.5/3.5	37/37	3.5/3.5	1000 pF in 24 ns		SOT-143
TC1426	Dual	Inverting	1.2/1.2	16	12/8	75/75	25/35	1000 pF in 38 ns		8-pin SOIC, 8-pin PDIP
TC1427	Dual	Non-inverting	1.2/1.2	16	12/8	75/75	25/35	1000 pF in 38 ns		8-pin SOIC, 8-pin PDIP
TC1428	Dual	Complimentary	1.2/1.2	16	12/8	75/75	25/35	1000 pF in 38 ns		8-pin SOIC, 8-pin PDIP
MIC4467	Quad	Inverting	1.2/1.2	18	5/5	35/55	5/5	470 pF in 14 ns	Latch-up Protected; Input to –5V	16-pin WSOIC, 14-pin PDIP
MIC4468	Quad	Non-inverting	1.2/1.2	18	5/5	35/55	5/5	470 pF in 14 ns	Latch-up Protected; Input to –5V	16-pin WSOIC, 14-pin PDIP
MIC4469	Quad	Complimentary	1.2/1.2	18	5/5	35/55	5/5	470 pF in 14 ns	Latch-up Protected; Input to –5V. SMD (Military)	16-pin WSOIC, 14-pin PDIP, 14-pin CerDIP
TC4467	Quad	Inverting	1.2/1.2	18	10/10	40/40	15/15	470 pF in 15 ns		16-pin SOIC, 14-pin PDIP
TC4468	Quad	Non-inverting	1.2/1.2	18	10/10	40/40	15/15	470 pF in 15 ns		16-pin SOIC, 14-pin PDIP
TC4469	Quad	Complimentary	1.2/1.2	18	10/10	40/40	15/15	470 pF in 15 ns		16-pin SOIC, 14-pin PDIP
MCP14A0151	Single	Inverting	1.5/1.5	18	17/10	41/32	18.5/17	1000 pF in 11.5 ns	Low Input Threshold and Enable Pin	6-pin SOT-23, 6-pin 2 × 2 DFN
MCP14A0152	Single	Non-inverting	1.5/1.5	18	17/10	41/32	18.5/17	1000 pF in 11.5 ns	Low Input Threshold and Enable Pin	6-pin SOT-23, 6-pin 2 × 2 DFN
MCP1415	Single	Inverting	1.5/1.5	18	6/4	41/48	20/20	470 pF in 13 ns	Small footprint	5-pin SOT-23
MCP1416	Single	Non-inverting	1.5/1.5	18	6/4	41/48	20/20	470 pF in 13 ns	Small footprint	5-pin SOT-23
MIC4414	Single	Non-inverting	1.5/1.5	18	3.5/3.5	12/12	12/12	1000 pF in 12 ns	Very small footprint	1.2 × 1.2 QFN
MIC4415	Single	Inverting	1.5/1.5	18	3.5/3.5	12/12	12/12	1000 pF in 12 ns	Very small footprint	1.2 × 1.2 QFN
TC4626	Single	Inverting	1.5/1.5	6	10/8	35/45	33/27	1000 pF in 40 ns	Boosted drive voltage	16-pin SOIC, 8-pin PDIP
TC4627	Single	Non-inverting	1.5/1.5	6	10/8	35/45	33/27	1000 pF in 40 ns	Boosted drive voltage	16-pin SOIC, 8-pin PDIP
TC4404	Single	Inverting	1.5/1.5	18	7/7	40/60	40/40	1000 pF in 30 ns		8-pin SOIC, 8-pin PDIP
TC4405	Single	Non-inverting	1.5/1.5	18	7/7	40/60	40/40	1000 pF in 30 ns		8-pin SOIC, 8-pin PDIP
MCP14A0153	Dual	Inverting	1.5/1.5	18	4.5/3	32/24	11/10	1000 pF in 11.5 ns	Low Input Threshold and Enable Pin	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP14A0154	Dual	Non-inverting	1.5/1.5	18	4.5/3	32/24	11/10	1000 pF in 11.5 ns	Low Input Threshold and Enable Pin	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP14A0155	Dual	Complimentary	1.5/1.5	18	4.5/3	32/24	11/10	1000 pF in 11.5 ns	Low Input Threshold and Enable Pin	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
TC4426A	Dual	Inverting	1.5/1.5	18	7/7	30/30	25/25	1000 pF in 25 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 8-pin 6 × 5 DFN-S
TC4427A	Dual	Non-inverting	1.5/1.5	18	7/7	30/30	25/25	1000 pF in 25 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 8-pin 6 × 5 DFN-S
TC4428A	Dual	Complimentary	1.5/1.5	18	7/7	30/30	25/25	1000 pF in 25 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 8-pin 6 × 5 DFN-S
MIC4426	Dual	Inverting	1.5/1.5	18	10/10	17/23	18/15	1000 pF in 18 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 8-pin CerDIP
MIC4427	Dual	Non-inverting	1.5/1.5	18	10/10	17/23	18/15	1000 pF in 18 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 8-pin CerDIP
MIC4428	Dual	Complimentary	1.5/1.5	18	10/10	17/23	18/15	1000 pF in 18 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 8-pin CerDIP
MIC4126	Dual	Inverting	1.5/1.5	20	10/10	37/40	13/15	1000 pF in 13 ns		8-pin eSOIC, 8-pin eMSOP-8, 3 × 3
MIC4127	Dual	Non-inverting	1.5/1.5	20	10/10	37/40	13/15	1000 pF in 13 ns		8-pin eSOIC, 8-pin eMSOP-8, 3 × 3
MIC4128	Dual	Complimentary	1.5/1.5	20	10/10	37/40	13/15	1000 pF in 13 ns		8-pin eSOIC, 8-pin eMSOP-8, 3 × 3
MCP14E6	Dual	Inverting	2.0/2.0	18	5/5	45/45	12/15	1000 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP14E7	Dual	Non-inverting	2.0/2.0	18	5/5	45/45	12/15	1000 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN

POWER MANAGEMENT: Power MOSFET Drivers (Continued)										
Part #	Drivers	Configuration	Peak Output Current (source/sink, A)	Maximum Supply Voltage (V)	Output Resistance (source/sink, Ω)	Propagation Delay (T_{d1}/T_{d2}, ns)	Rise/Fall Time (T_r/T_f, ns)	Capacitive Load Drive	Features	Packages
Low-Side Power MOSFET Drivers (Continued)										
MCP14E8	Dual	Complimentary	2.0/2.0	18	5/5	45/45	12/15	1000 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
TC1412	Single	Inverting	2.0/2.0	16	4/4	35/35	18/18	1000 pF in 18 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP
TC1412N	Single	Non-Inverting	2.0/2.0	16	4/4	35/35	18/18	1000 pF in 18 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP
MIC4478	Dual	Non-Inverting	2.5/2.5	32	6/3	160/70	120/45	1,000pF in 45 ns		8-pin SOIC
MIC4479	Dual	Inverting	2.5/2.5	32	6/3	160/70	120/45	1,000pF in 45 ns		8-pin SOIC
MIC4480	Dual	Complimentary	2.5/2.5	32	6/3	160/70	120/45	1,000pF in 45 ns		8-pin SOIC
TC4423A	Dual	Inverting	3.0/3.0	18	2.2/2.8	40/41	12-Dec	1800 pF in 12 ns		8-pin SOIC, 16-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
TC4424A	Dual	Non-Inverting	3.0/3.0	18	2.2/2.8	40/41	12-Dec	1800 pF in 12 ns		8-pin SOIC, 16-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
TC4425A	Dual	Complimentary	3.0/3.0	18	2.2/2.8	40/41	12-Dec	1800 pF in 12 ns		8-pin SOIC, 16-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP14E9	Dual	Inverting	3.0/3.0	18	4/4	45/45	14/17	1800 pF in 17 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP14E10	Dual	Non-Inverting	3.0/3.0	18	4/4	45/45	14/17	1800 pF in 17 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP14E11	Dual	Complimentary	3.0/3.0	18	4/4	45/45	14/17	1800 pF in 17 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
TC1413N	Single	Non-Inverting	3.0/3.0	16	2.7/2.7	35/35	20/20	1800 pF in 20 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP
MAQ4123	Dual	Inverting	3.0/3.0	20	5/5	40/60	11/11	1,800 pF in 11 ns		8-pin eSOIC, 4 × 4
MAQ4124	Dual	Non-Inverting	3.0/3.0	20	5/5	40/60	11/11	1,800 pF in 11 ns		8-pin eSOIC
MAQ4125	Dual	Complimentary	3.0/3.0	20	5/5	40/60	11/11	1,800 pF in 11 ns		8-pin eSOIC
MIC4123	Dual	Inverting	3.0/3.0	20	5/5	44/59	11/11	1,800 pF in 11 ns		8-pin eSOIC, 4 × 4
MIC4124	Dual	Non-Inverting	3.0/3.0	20	5/5	44/59	11/11	1,800 pF in 11 ns		8-pin eSOIC, 4 × 4
MIC4125	Dual	Complimentary	3.0/3.0	20	5/5	44/59	11/11	1,800 pF in 11 ns		8-pin eSOIC, 4 × 4
MIC4423	Dual	Inverting	3.0/3.0	18	5/5	33/38	23/25	1,800 pF in 23ns		8-pin SOIC, 16-pin WSOIC, 8-pin PDIP
MIC4424	Dual	Non-Inverting	3.0/3.0	18	5/5	33/38	23/25	1,800 pF in 23ns		8-pin SOIC, 16-pin WSOIC, 8-pin PDIP, 8-pin CerDIP
MIC4425	Dual	Complimentary	3.0/3.0	18	5/5	33/38	23/25	1,800 pF in 23ns		8-pin SOIC, 16-pin WSOIC, 8-pin PDIP
MIC4223	Dual	Inverting	4.0/4.0	18	30/16	25/35	15/15	2000 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin eMSOP
MIC4224	Dual	Non-Inverting	4.0/4.0	18	30/16	25/35	15/15	2000 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin eMSOP
MIC4225	Dual	Complimentary	4.0/4.0	18	30/16	25/35	15/15	2000 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin eMSOP
MCP14E3	Dual	Inverting	4.0/4.0	18	2.5/2.5	46/50	15/18	2200 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP14E4	Dual	Non-Inverting	4.0/4.0	18	2.5/2.5	46/50	15/18	2200 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP14E5	Dual	Complimentary	4.0/4.0	18	2.5/2.5	46/50	15/18	2200 pF in 15 ns	Enable pin	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP1403	Dual	Inverting	4.5/4.5	18	2.2/2.8	40/40	15/18	2200 pF in 15 ns		8-pin SOIC, 16-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP1404	Dual	Non-Inverting	4.5/4.5	18	2.2/2.8	40/40	15/18	2200 pF in 15 ns		8-pin SOIC, 16-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP1405	Dual	Complimentary	4.5/4.5	18	2.2/2.8	40/40	15/18	2200 pF in 15 ns		8-pin SOIC, 16-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MIC4120	Single	Non-Inverting	6.0/6.0	20	5/5	45/50	12/13	2200 pF in 12 ns		8-pin eSOIC, 3 × 3
MIC4129	Single	Inverting	6.0/6.0	20	5/5	45/50	12/13	2200 pF in 12 ns		8-pin eSOIC, 3 × 3
MIC4420	Single	Non-Inverting	6.0/6.0	18	2.8/2.5	18/48	12/13	2200 pF in 12 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 5-pin TO-220, 8-pin CerDIP
MIC4429	Single	Inverting	6.0/6.0	18	2.8/2.5	18/48	12/13	2200 pF in 12 ns		8-pin SOIC, 8-pin MSOP, 8-pin PDIP, 5-pin TO-220
MIC44F18	Single	Non-Inverting	6.0/6.0	13	2/2	15/13	10/10	1000 pF I 10 ns	Enable pin	8-pin eMSOP, 2 × 2 QFN
MIC44F19	Single	Inverting	6.0/6.0	13	2/2	15/13	10/10	1000 pF I 10 ns	Enable pin	8-pin eMSOP, 2 × 2 QFN
MIC44F20	Single	Inverting	6.0/6.0	13	2/2	15/13	10/10	1000 pF I 10 ns	Enable pin	8-pin eMSOP, 2 × 2 QFN
MCP1406	Single	Inverting	6.0/6.0	18	2.1/1.5	40/40	20/20	2500 pF in 20 ns		8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MCP1407	Single	Non-Inverting	6.0/6.0	18	2.1/1.5	40/40	20/20	2500 pF in 20 ns		8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
TC4421A	Single	Inverting	9.0/9.0	18	1.25/0.8	38/42	28/26	4700 pF in 15 ns		8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
TC4422A	Single	Non-Inverting	9.0 / 9.0	18	1.25 / 0.8	38/42	28/26	4700 pF in 15 ns		8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
MIC4421A	Single	Inverting	9.0 / 9.0	18	0.8/0.6	15/35	20/24	10,000 pF in 24 ns		8-pin PDIP, 8-pin SOIC, 5-pin TO-220
MIC4422A	Single	Non-Inverting	9.0 / 9.0	18	0.8/0.6	15/35	20/24	10,000 pF in 24 ns		8-pin PDIP, 8-pin SOIC, 5-pin TO-220
MIC4451	Single	Inverting	12.0/12.0	18	0.8/0.6	25/40	20/24	10,000 pF in 24 ns		8-pin PDIP, 8-pin SOIC, 5-pin TO-220
MIC4452	Single	Non-Inverting	12.0/12.0	18	0.8/0.6	25/40	20/24	10,000 pF in 24 ns		8-pin PDIP, 8-pin SOIC, 5-pin TO-220
TC4451	Single	Inverting	12.0/12.0	18	1.0/0.9	44/44	30/32	10,000 pF in 21 ns		8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN
TC4452	Single	Non-Inverting	12.0/12.0	18	1.0/0.9	44/44	30/32	10,000 pF in 21 ns		8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN

POWER MANAGEMENT: Power MOSFET Drivers (Continued)										
Part #	**Drivers**	**Configuration**	**Peak Output Current (source/sink, A)**	**Maximum Supply Voltage (V)**	**Output Resistance (source/sink, Ω)**	**Propagation Delay (T_{d1}/T_{d2}, ns)**	**Rise/Fall Time (T_r/T_f, ns)**	**Capacitive Load Drive**	**Features**	**Packages**
High-Side Power MOSFET Drivers										
TC4431	High-Side Single	Inverting	3.0/1.5	30	7/7	62/78	25/33	1000 pF in 15 ns	30V, high-side driver	8-pin SOIC, 8-pin PDIP
TC4432	High-Side Single	Non-inverting	3.0/1.5	30	7/7	62/78	25/33	1000 pF in 15 ns	30V, high-side driver	8-pin SOIC, 8-pin PDIP
TC4403	Floating Load Driver	Non-inverting	1.5/1.5	18	2.8/3.5	33/38	23/25	1800 pF in 25 ns	Floating load driver	8-pin PDIP
MIC5011	High-Side or Low Side Single	Non-Inverting	950 µA*	32	N/A	N/A	25 µs/4 µs	1000 pF in 60 µs	Less than 1 µA in Standby Mode	8-pin SOIC, 8-pin PDIP
MIC5013	High-Side or Low Side Single	Non-Inverting	225 µA*	32	N/A	N/A	60 µs/4 µs	1000 pF in 60µs	With over-current shutdown and a fault flag	8-pin SOIC, 8-pin PDIP
MIC5014	High-Side or Low Side Single	Non-Inverting	800 µA*	30	N/A	N/A	90 µs/6 µs	1000 pF in 90 µs	Withstands 60V transient and Reverse battery protected to –20V	8-pin SOIC, 8-pin PDIP
MIC5015	High-Side or Low Side Single	Inverting	800 µA*	30	N/A	N/A	90 µs/6 µs	1000 pF in 90 µs	Withstands 60V transient and Reverse battery protected to –20V	8-pin SOIC, 8-pin PDIP
MIC5018	High-Side or Low Side Single	Non-Inverting	10 µA*	9	N/A	N/A	750 µs/10 µs	3,000 pF in 2.1 ms	Small Package	SOT-143
MIC5019	High-Side or Low Side Single	Non-Inverting	10 µA*	9	N/A	N/A	440 µs/5.56 µs	3,000 pF in 1.34 ms	Ultra Small 1.2 × 1.2 mm DFN	4-pin DFN
MIC5021	High-Side or Low Side Single	Non-Inverting	5600 µA*	36	N/A	500/800	400ns/400ns	1,500 pF in 400 ns	100 kHz operation guaranteed over full temperature and operating voltage range	8-pin SOIC, 8-pin PDIP
MIC5060	High-Side or Low Side Single	Non-Inverting	800 µA*	30	N/A	N/A	90 µs/6 µs	1000 pF in 60 µs	Withstands 60V transient and Reverse battery protected to –20V	8-pin MLF
Synchronous Power MOSFET Drivers										
MCP14628	Half Bridge Driver	Dual Inputs	2.0/3.5	5.5 (36V Boot Pin)	1/1 (0.5 on low side)	15/22	10/10	3300 pF in 10 ns	Continuous or discontinuous operation	8-pin SOIC, 8-pin 3 × 3 DFN
MCP14700	Half Bridge Driver	Dual Inputs	2.0/3.5	5.5 (36V Boot Pin)	1/1 (0.5 on low side)	15/22	10/10	3300 pF in 10 ns	Allows external dead time control	8-pin SOIC, 8-pin 3 × 3 DFN
MIC4100	Half Bridge Driver	Dual Inputs	2.0/2.0	16 (100V Boot Pin)	2.5/2.0	27/27	10/10	1000 pF in 27 ns		8-pin SOIC
MIC4101	Half Bridge Driver	Dual Inputs	2.0/2.0	16 (100V Boot Pin)	2.5/2.0	31/31	10/10	1000 pF in 27 ns		8-pin SOIC
MIC4102	Half Bridge Driver	Signle PWN	3.0/2.0	16 (100V Boot Pin)	1.5/2.0	60/75	10/6	1000 pF in 27 ns	Adaptive Dead Time and Anti-Shoot-Through Circuitry	8-pin SOIC
MIC4103	Half Bridge Driver	Dual Inputs	3.0/2.0	16 (100V Boot Pin)	1.5/2.0	24/24	10/6	1000 pF in 27 ns		8-pin SOIC
MIC4104	Half Bridge Driver	Dual Inputs	3.0/2.0	16 (100V Boot Pin)	1.5/2.0	24/24	10/6	1000 pF in 27 ns		8-pin SOIC
MIC4600	Half Bridge Driver	Dual Inputs, Single PWM	1.0/1.0	28V	2.0/1.5	26/55	15/13.5	1000 pF in 26 ns	Internal 5V LDO	3 × 3 QFN
MIC4604	Half Bridge Driver	Dual Inputs	1.0/1.0	16V (85V Boot Pin)	4.4/4.0	33/34	20/20	1000 pF in 31ns	Small 2.5 × 2.5 mm DFN	8-pin SOIC, 8-pin 2.5 × 2.5 DFN
MIC4605	Half Bridge Driver	Dual Inputs, Single PWM	1.0/1.0	16V (85V Boot Pin)	10/6	35/35	20/20	1000 pF in 35 ns	Adaptive Dead Time and Anti-Shoot-Through Circuitry	8-pin SOIC, 8-pin 2.5 × 2.5 DFN
MIC4606	Full Bridge Driver	Dual Inputs, Single PWM	1.0/1.0	16V (85V Boot Pin)	10/6	35/35	20/20	1000 pF in 35 ns	Adaptive Dead Time and Anti-Shoot-Through Circuitry	4 × 4 QFN
MIC4607	3 Phase Driver	Dual Inputs, Single PWM	1.0/1.0	16V (85V Boot Pin)	10/6	35/35	20/20	1000 pF in 35 ns	Adaptive Dead Time and Anti-Shoot-Through Circuitry	4 × 5 QFN, 24-pin TSSOP
MIC4608	Half Bridge Driver	Dual Inputs, Single PWM	1.0/1.0	20V (600V Boot Pin)	8/9.2	450/450	31/31	1150 pF in 35 ns	600V Operation, State PIN	14-pin SOIC

*Charge pump current

POWER MANAGEMENT: Power MOSFETs

Part #	Vds (V)	Configuration	Polarity	Rds (on) @ 4.5V (mΩ, Max.)	Rds (on) @ 10V (mΩ, Max.)	Qg @ 4.5V (nC, Max.)	Id (A, Max. @ 25°C, Tcase)	Vgs (th) (V, Min.)	Qgd (nC, Typ.)	Rg (Ω, Typ.)	Packages
MCP87018	25	Single	N	2.2	1.9	37	100	1	13	1.5	8-pin 5 × 6 PDFN
MCP87022	25	Single	N	2.6	2.3	29	100	1	9	1.3	8-pin 5 × 6 PDFN
MCP87030	25	Single	N	4	3.5	22	100	1	6.7	1.2	8-pin 5 × 6 PDFN
MCP87050	25	Single	N	6	5	15	100	1	4.7	1.1	8-pin 5 × 6 PDFN
MCP87055	25	Single	N	7	6	14	60	1	4.5	2.1	8-pin 3.3 × 3.3 PDFN
MCP87090	25	Single	N	12	10.5	10	64	1.1	2.8	1.8	8-pin 5 × 6 PDFN, 8-pin 3.3 × 3.3 PDFN
MCP87130	25	Single	N	16.5	13.5	8	54	1.1	2.6	1.7	8-pin 5 × 6 PDFN, 8-pin 3.3 × 3.3 PDFN

POWER MANAGEMENT: Battery Chargers

Part #	Mode	Cell Type	# of Cells	Vcc Range (V)	Cell Voltage (V)	Maximum Charging Current (mA)	Max. Voltage Regulation (%)	Int/Ext FET	Features	Packages
MCP73113	Linear	Li-ion/Li-Polymer	1	4 to 16	4.1, 4.2, 4.35, 4.4	1100	±0.5	Int	6.5V Overvoltage Protection	10-pin 3 × 3 DFN
MCP73114	Linear	Li-ion/Li-Polymer	1	4 to 16	4.1, 4.2, 4.35, 4.4	1100	±0.5	Int	5.8V Overvoltage Protection	10-pin 3 × 3 DFN
MCP73123	Linear	LiFePO4	1	4 to 16	3.6	1100	±0.5	Int	6.5V Overvoltage Protection, LiFePO4 charging	10-pin 3 × 3 DFN
MCP73213	Linear	Li-ion/Li-Polymer	2	4 to 16	8.2, 8.4, 8.7, 8.8	1100	±0.6	Int	13V Overvoltage Protection	10-pin 3 × 3 DFN
MCP73223	Linear	LiFePO4	2	4 to 16	7.2	1100	±0.6	Int	13V Overvoltage Protection, LiFePO4 charging	10-pin 3 × 3 DFN
MCP73826	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	4.1, 4.2	N/A	±1.0	Ext	Small size, charge current set by external FET	6-pin SOT-23
MCP73827	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	4.1, 4.2	N/A	±1.0	Ext	Mode indicator, Charge current monitor, Charge current set by external FET	8-pin MSOP
MCP73828	Linear	Li-Ion/Li Polymer	1	4.5 to 5.5	4.1, 4.2	N/A	±1.0	Ext	Temperature monitor, Charge current set by external FET	8-pin MSOP
MCP73841	Linear	Li-Ion/Li-Polymer	1	4.5 to 12	4.1, 4.2	N/A	±0.5	Ext	Safety charge timers, Temperature monitor, Charge current set by external FET	10-pin MSOP
MCP73841	Linear	Li-Ion/Li-Polymer	1	4.5 to 12	4.1, 4.2	N/A	±0.5	Ext	Safety charge timers, Temperature monitor, Charge current set by external FET	10-pin MSOP
MCP73842	Linear	Li-Ion/Li-Polymer	2	8.7 to 12	8.2, 8.4	N/A	±0.5	Ext	Safety charge timers, Temperature monitor, Charge current set by external FET	10-pin MSOP
MCP73843	Linear	Li-Ion/Li-Polymer	1	4.5 to 12	4.1, 4.2	N/A	±0.5	Ext	Safety charge timers, Charge current set by external FET	8-pin MSOP
MCP73844	Linear	Li-Ion/Li-Polymer	2	8.7 to 12	8.2, 8.4	N/A	±0.5	Ext	Safety charge timers, Charge current set by external FET	8-pin MSOP
MCP73811	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2	500	±1.0	Int	Selectable charge current (100 mA, 500 mA), Charge enable input	5-pin SOT-23
MCP73812	Linear	Li-Ion/Li Polymer	1	3.7 to 6.0	4.2	500	±1.0	Int	Programmable charge current (100 mA, 500 mA), Charge enable input	5-pin SOT-23
MCP73830/L	Linear	Li-Ion/Li-Polymer	1	3.75 to 6.0	4.2	1000/200	±0.75	Int	Soft-start, Charge enable pin	6-pin 2 × 2 TDFN
MCP73831	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	500	±0.75	Int	UVLO, Thermal regulation, Programmable charge current, Tri-state STAT pin	5-pin SOT-23, 8-pin 2 × 3 DFN
MCP73832	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	500	±0.75	Int	UVLO, Thermal regulation, Programmable charge current, Open-drain STAT pin	5-pin SOT-23, 8-pin 2 × 3 DFN
MCP73853	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	4.1, 4.2	500	±0.5	Int	USB control, Safety charge timers, Temperature monitor, Thermal regulation	16-pin 4 × 4 QFN
MCP73855	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	4.1, 4.2	500	±0.5	Int	USB control, Safety charge timers, Thermal regulation	10-pin 3 × 3 DFN
MCP73833	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	1000	±0.75	Int	UVLO, Thermal regulation, Thermistor input, LDO Test mode, Multiple V_{REG} outputs, Safety timer, Power good output	10-pin 3 × 3 DFN, 10-pin MSOP
MCP73834	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	1000	±0.75	Int	UVLO, Thermal regulation, Thermistor input, LDO Test mode, Multiple V_{REG} outputs, Safety timer, Timer enable input	10-pin 3 × 3 DFN, 10-pin MSOP
MCP73837	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	1000	±0.75	Int	Dual input (USB, DC input from adapter) auto-switching, UVLO, Thermal regulation, Thermistor input, Power good output	10-pin 3 × 3 DFN, 10-pin MSOP
MCP73838	Linear	Li-Ion/Li Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	1000	±0.75	Int	Dual input (USB, DC input from adapter) auto-switching, UVLO, Thermal regulation, Timer enable input	10-pin 3 × 3 DFN, 10-pin MSOP
MCP73871	Linear	Li-Ion/Li-Polymer	1	3.75 to 6.0	4.1, 4.2, 4.35, 4.4	1500 (A/C Adapter) 500 (USB)	±0.5	Int	Simultaneous charging of load and battery, Load-dependent charging, Multiple programmable charge currents	20-pin 4 × 4 QFN, 20-pin SSOP

POWER MANAGEMENT: Hot Swap Controllers

Part #	Number of Outputs	V_{POS} to V_{NEG} Differential Voltage (V)	Junction Temperature Range (°C)	OVLO	UVLO	Power Good	Int/Ext FET	Applications	Packages
MCP18480	1	–0.3 to +15.0	–40 to +85	Adjustable	Adjustable	Adjustable	Ext	–48V Telecom/Datacom, Bus/Backplane	20-pin SSOP

POWER MANAGEMENT: Power Switches

Part #	Description	USB Port Power Switch (55 mΩ)	High-Speed USB 2.0 Switch	Battery Charger Emulation Profile	8 Resistor Set Current Limits	Charging Indicator Output	Attach Detection Output	Current Measurement	Power Allocation	Interface	Packages
USB Port Power Controllers											
UCS1001-1	USB Port Power Controller with Charger Emulation	1	1	9	Up to 2.4A	✓	–	–	–	Discrete I/O	20-pin 4 × 4 QFN
UCS1001-2	USB Port Power Controller with Charger Emulation	1	1	9	Up to 2.4A	–	✓	–	–	Discrete I/O	20-pin 4 × 4 QFN
UCS1001-3	USB Port Power Controller with Charger Emulation	1	1	9	Up to 2.4A	✓	–	–	–	Discrete I/O	20-pin 4 × 4 QFN
UCS1001-4	USB Port Power Controller with Charger Emulation	1	1	9	Up to 2.4A	–	✓	–	–	Discrete I/O	20-pin 4 × 4 QFN
UCS1002-1	Programmable USB Port Power Controller with Charger Emulation	1	1	9 + 1 programmable	Up to 2.4A	✓	–	✓	✓	I2C/SMBus	20-pin 4 × 4 QFN
UCS1002-2	Programmable USB Port Power Controller with Charger Emulation	1	1	9 + 1 programmable	Up to 2.4A	✓	–	✓	✓	I²C/SMBus	20-pin 4 × 4 QFN
UCS1003-1	Programmable USB Port Power Controller with Charger Emulation	1	1	9 + 1 programmable	Up to 3A	–	✓	✓	✓	I²C/SMBus	20-pin 4 × 4 QFN
UCS1003-2	Programmable USB Port Power Controller with Charger Emulation	1	1	9	Up to 3A	✓	–	–	–	Discrete I/O	20-pin 4 × 4 QFN
UCS1003-3	Programmable USB Port Power Controller with Charger Emulation	1	1	9	Up to 3A	–	✓	–	–	Discrete I/O	20-pin 4 × 4 QFN
UCS81003	Programmable USB Port Power Controller Automotive	1	1	9 + 1 programmable	Up to 3A	✓	✓	✓	✓	I²C/SMBus	28-pin 5 × 5 QFN

Current Limit USB Protection Switches

Part #	Channels	V_{IN} Range (V)	Fixed Current Limit (Min.)	Adj. Current Limit (Max.)	$R_{DS(ON)}$ (mΩ)	Current Limited/ Latched	Reverse Blocking	Enable Logic	ULVO	Thermal Protection	Fault Flag	Current Measurement	Packages
UCS2112	Dual	2.9–5.5	3.0A	3.4A	40	✓	✓	Active Low, Active High	✓	✓	✓	✓	20-pin 4 × 4 QFN
MIC2003/13	Single	2.5–5.5	500 mA, 800 mA, 1.2A	–	70	✓	–	–	✓	✓	–	–	5-pin SOT23, 2 × 2
MIC2004/14	Single	2.5–5.5	500 mA, 800 mA, 1.2A	–	70	✓	–	Active High	✓	✓	–	–	5-pin SOT23, 2 × 2
MIC2005/15	Single	2.5–5.5	500 mA, 800 mA, 1.2A	–	70	✓	–	Active High	✓	✓	✓	–	5-pin SOT23, 6-pin SOT23, 2 × 2
MIC2005A	Single	2.5–5.5	500 mA	–	170	✓	–	Active Low, Active High	✓	✓	✓	–	5-pin SOT23, 6-pin SOT23
MIC2009A	Single	2.5–5.5	–	900 mA	170	✓	–	Active Low, Active High	✓	✓	–	–	6-pin SOT23
MIC2005L	Single	2.5–5.5	500 mA, 800 mA, 1.2A	–	70	✓	–	Active Low	✓	✓	✓	–	5-pin SOT23
MIC2007/17	Single	2.5–5.5	–	2.0A	100	✓	–	Active High	✓	✓	–	–	6-pin SOT23, 2 × 2
MIC2008/18	Single	2.5–5.5	–	2.0A	70	✓	–	Active High	✓	✓	–	–	6-pin SOT23, 2 × 2
MIC2009/19	Single	2.5–5.5	–	2.0A	70	✓	–	Active High	✓	✓	✓	–	6-pin SOT23, 2 × 2
MIC2025-1	Single	2.7–5.5	500 mA	–	140	✓	✓	Active High	✓	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2025-2	Single	2.7–5.5	500 mA	–	140	✓	✓	Active Low	✓	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2026-1	Dual	2.7–5.5	500 mA	–	90	✓	✓	Active High	✓	✓	✓	–	8-pin SOIC, 8-pin PDIP
MIC2026-2	Dual	2.7–5.5	500 mA	–	90	✓	✓	Active Low	✓	✓	✓	–	8-pin SOIC, 8-pin PDIP

*Reduced Height Package

POWER MANAGEMENT: Power Switches (Continued)													
Part #	Channels	V_{IN} Range (V)	Fixed Current Limit (Min.)	Adj. Current Limit (Max.)	$R_{DS(ON)}$ (mΩ)	Current Limited/ Latched	Reverse Blocking	Enable Logic	ULVO	Thermal Protection	Fault Flag	Current Measurement	Packages
Current Limit USB Protection Switches (Continued)													
MIC2026A-1	Dual	2.7–5.5	500 mA	–	100	✓	✓	Active High	✓	✓	✓	–	8-pin SOIC
MIC2026A-2	Dual	2.7–5.5	500 mA	–	100	✓	✓	Active Low	✓	✓	✓	–	8-pin SOIC
MIC2027-1	Quad	2.7–5.5	500 mA	–	150	✓	✓	Active High	✓	✓	✓	–	16-pin SOIC, 16-pin WSOIC
MIC2027-2	Quad	2.7–5.5	500 mA	–	150	✓	✓	Active Low	✓	✓	✓	–	16-pin SOIC, 16-pin WSOIC
MIC2033	Single	2.5–5.5	475 mA, 517 mA, 760 mA, 950 mA, 1.14A	–	125	✓	–	Active Low, Active High	✓	✓	✓	–	6-pin SOT-23, 6-pin DFN*
MIC2039	Single	2.5–5.5	–	2.5A	75	✓	–	Active Low, Active High	✓	✓	✓	–	6-pin SOT-23, 2 × 2*
MIC2040-1	Single	0.8–5.5	–	1.5A	75	✓	✓	Active High	✓	✓	✓	–	10-pin MSOP
MIC2040-2	Single	0.8–5.5	–	1.5A	75	✓	✓	Active Low	✓	✓	✓	–	10-pin MSOP
MIC2041-1	Single	0.8–5.5	–	1.5A	75	Latched	✓	Active High	✓	✓	✓	–	10-pin MSOP
MIC2041-2	Single	0.8–5.5	–	1.5A	75	Latched	✓	Active Low	✓	✓	✓	–	10-pin MSOP
MIC2042-1	Single	0.8–5.5	–	3.0A	60	✓	✓	Active High	✓	✓	✓	–	8-pin SOIC, 14-pin TSSOP
MIC2042-2	Single	0.8–5.5	–	3.0A	60	✓	✓	Active Low	✓	✓	✓	–	8-pin SOIC, 14-pin TSSOP
MIC2043-1	Single	0.8–5.5	–	3.0A	60	Latched	✓	Active High	✓	✓	✓	–	8-pin SOIC, 14-pin TSSOP
MIC2043-2	Single	0.8–5.5	–	3.0A	60	Latched	✓	Active Low	✓	✓	✓	–	8-pin SOIC, 14-pin TSSOP
MIC2044-1	Single	0.8–5.5	–	6.0A	30	✓	✓	Active High	✓	✓	✓	–	16-pin TSSOP
MIC2044-2	Single	0.8–5.5	–	6.0A	30	✓	✓	Active Low	✓	✓	✓	–	16-pin TSSOP
MIC2045-1	Single	0.8–5.5	–	6.0A	30	Latched	✓	Active High	✓	✓	✓	–	16-pin TSSOP
MIC2045-2	Single	0.8–5.5	–	6.0A	30	Latched	✓	Active Low	✓	✓	✓	–	16-pin TSSOP
MIC2075-1	Single	2.7–5.5	500 mA	–	140	✓	✓	Active High	✓	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2075-2	Single	2.7–5.5	500 mA	–	140	✓	✓	Active Low	✓	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2076-1	Dual	2.7–5.5	500 mA	–	90	✓	✓	Active High	✓	✓	✓	–	8-pin SOIC, 8-pin PDIP
MIC2076-2	Dual	2.7–5.5	500 mA	–	90	✓	✓	Active Low	✓	✓	✓	–	8-pin SOIC, 8-pin PDIP
MIC2076A-1	Dual	2.7–5.5	500 mA	–	100	✓	✓	Active High	✓	✓	✓	–	8-pin SOIC
MIC2076A-2	Dual	2.7–5.5	500 mA	–	100	✓	✓	Active Low	✓	✓	✓	–	8-pin SOIC
MIC2077-1	Quad	2.7–5.5	500 mA	–	150	✓	✓	Active High	✓	✓	✓	–	16-pin SOIC, 16-pin WSOIC
MIC2077-2	Quad	2.7–5.5	500 mA	–	150	✓	✓	Active Low	✓	✓	✓	–	16-pin SOIC, 16-pin WSOIC
MIC2095-1	Single	2.5–5.5	500 mA	–	170	✓	✓	Active High	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2095-2	Single	2.5–5.5	500 mA	–	170	✓	✓	Active Low	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2097-1	Single	2.5–5.5	–	1.1A	170	✓	✓	Active High	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2097-2	Single	2.5–5.5	–	1.1A	170	✓	✓	Active Low	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2098-1	Single	2.5–5.5	900 mA	–	170	✓	✓	Active High	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2098-2	Single	2.5–5.5	900 mA	–	170	✓	✓	Active Low	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2099-1	Single	2.5–5.5	–	1.1A	170	✓	✓	Active High	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2099-2	Single	2.5–5.5	–	1.1A	170	✓	✓	Active Low	✓	✓	✓	–	16-pin 1.6 × 1.6 TMLF
MIC2505	Single	2.7–7.5	2.0A	–	30	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin PDIP
MIC2505-1	Single	2.7–7.5	2.0A	–	30	✓	✓	Active High	–	✓	✓	–	8-pin SOIC
MIC2505-2	Single	2.7–7.5	2.0A	–	30	✓	✓	Active Low	–	✓	✓	–	8-pin SOIC

*Reduced Height Package

POWER MANAGEMENT: Power Switches (Continued)													
Part #	**Channels**	**V_{IN} Range (V)**	**Fixed Current Limit (Min.)**	**Adj. Current Limit (Max.)**	**$R_{DS(ON)}$ (mΩ)**	**Current Limited/ Latched**	**Reverse Blocking**	**Enable Logic**	**ULVO**	**Thermal Protection**	**Fault Flag**	**Current Measurement**	**Packages**
Current Limit USB Protection Switches (Continued)													
MIC2506	Dual	2.7–7.5	1.0A	–	75	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin PDIP
MIC2544-1	Single	2.7–5.5	–	1.5A	80	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2544-2	Single	2.7–5.5	–	1.5A	80	✓	✓	Active Low	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2544A-1	Single	2.7–5.5	–	1.5A	80	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2544A-2	Single	2.7–5.5	–	1.5A	80	✓	✓	Active Low	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2545A-1	Single	2.7–5.5	–	3.0A	35	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin PDIP, 14-pin TSSOP
MIC2545A-2	Single	2.7–5.5	–	3.0A	35	✓	✓	Active Low	–	✓	✓	–	8-pin SOIC, 8-pin PDIP, 14-pin TSSOP
MIC2546-1	Dual	2.7–5.5	–	1.5A	80	✓	✓	Active High	–	✓	✓	–	16-pin SOIC, 16-pin TSSOP
MIC2546-2	Dual	2.7–5.5	–	1.5A	80	✓	✓	Active Low	–	✓	✓	–	16-pin SOIC, 16-pin TSSOP
MIC2547-1	Dual	2.7–5.5	–	1.5A	80	✓	✓	Active High	–	✓	✓	–	16-pin SOIC, 16-pin TSSOP
MIC2547-2	Dual	2.7–5.5	–	1.5A	80	✓	✓	Active Low	–	✓	✓	–	16-pin SOIC, 16-pin TSSOP
MIC2548-1	Single	2.7–5.5	–	1.5A	80	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2548-2	Single	2.7–5.5	–	1.5A	80	✓	✓	Active Low	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2548A-1	Single	2.7–5.5	–	1.5A	80	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2548A-2	Single	2.7–5.5	–	1.5A	80	✓	✓	Active Low	–	✓	✓	–	8-pin SOIC, 8-pin MSOP
MIC2549A-1	Single	2.7–5.5	–	3.0A	35	✓	✓	Active High	–	✓	✓	–	8-pin SOIC, 8-pin PDIP, 14-pin TSSOP
MIC2549A-2	Single	2.7–5.5	–	3.0A	35	✓	✓	Active Low	–	✓	✓	–	8-pin SOIC, 8-pin PDIP, 14-pin TSSOP

*Reduced Height Package

Load Switches										
Part #	**Channels**	**V_{IN} Range (V)**	**Max. Switch Current**	**$R_{DS(ON)}$ (mΩ)**	**Soft Start (µs)**	**Load Discharge (Ω)**	**Enable Logic**	**Input Pull-Up Resistor**	**Reverse Blocking**	**Packages**
MIC94030	Single	2.7–13.5	1.0	750	–	–	Active Low	–	✓	4-pin SOT143
MIC94031	Single	2.7–13.5	1.0	750	–	–	Active Low	✓	✓	4-pin SOT143
MIC94040	Single	1.7–5.5	3.0	28	–	–	Active High	–	–	4-pin 1.2 × 1.2 MLF
MIC94041	Single	1.7–5.5	3.0	28	–	250	Active High	–	–	4-pin 1.2 × 1.2 MLF
MIC94042	Single	1.7–5.5	3.0	28	100	–	Active High	–	–	4-pin 1.2 × 1.2 MLF
MIC94043	Single	1.7–5.5	3.0	28	–	250	Active High	–	–	4-pin 1.2 × 1.2 MLF
MIC94044	Single	1.7–5.5	3.0	28	900	–	Active High	–	–	4-pin 1.2 × 1.2 MLF
MIC94045	Single	1.7–5.5	3.0	28	900	200	Active High	–	–	4-pin 1.2 × 1.2 MLF
MIC94050	Single	1.8–5.5	1.8	125	–	–	Active Low	–	✓	4-pin SOT143
MIC94051	Single	1.8–5.5	1.8	125	–	–	Active Low	✓	✓	4-pin SOT143
MIC94052	Single	1.8–5.5	2.0	70	–	–	Active Low	–	–	6-pin SC70
MIC94053	Single	1.8–5.5	2.0	70	–	–	Active Low	✓	–	6-pin SC70
MIC94060	Single	1.7–5.5	2.0	77	–	–	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94061	Single	1.7–5.5	2.0	77	–	200	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94062	Single	1.7–5.5	2.0	77	800	–	Active High	–	–	6-pin SC70, 1.2 × 1.6

*Reduced Height Package

POWER MANAGEMENT: Power Switches (Continued)										
Part #	**Channels**	**V_{IN} Range (V)**	**Max. Switch Current**	**$R_{DS(ON)}$ (mΩ)**	**Soft Start (µs)**	**Load Discharge (Ω)**	**Enable Logic**	**Input Pull-Up Resistor**	**Reverse Blocking**	**Packages**
Load Switches										
MIC94063	Single	1.7–5.5	2.0	77	800	200	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94064	Single	1.7–5.5	2.0	77	115	–	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94065	Single	1.7–5.5	2.0	77	115	200	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94070	Single	1.7–5.5	1.2	120	–	–	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94071	Single	1.7–5.5	1.2	120	–	200	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94072	Single	1.7–5.5	1.2	120	800	–	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94073	Single	1.7–5.5	1.2	120	800	200	Active High	–	–	6-pin SC70, 1.2 × 1.6
MIC94080	Single	1.7–5.5	2.0	67	–	–	Active High	–	–	4-pin 0.85 × 0.85 TMLF
MIC94081	Single	1.7–5.5	2.0	67	–	250	Active High	–	–	4-pin 0.85 × 0.85 TMLF
MIC94082	Single	1.7–5.5	2.0	67	800	–	Active High	–	–	4-pin 0.85 × 0.85 TMLF
MIC94083	Single	1.7–5.5	2.0	67	800	250	Active High	–	–	4-pin 0.85 × 0.85 TMLF
MIC94084	Single	1.7–5.5	2.0	67	120	–	Active High	–	–	4-pin 0.85 × 0.85 TMLF
MIC94085	Single	1.7–5.5	2.0	67	120	250	Active High	–	–	4-pin 0.85 × 0.85 TMLF
MIC94090	Single	1.7–5.5	1.2	130	–	–	Active High	–	–	6-pin SC70, 1.2 × 1.2
MIC94091	Single	1.7–5.5	1.2	130	–	250	Active High	–	–	6-pin SC70, 1.2 × 1.2
MIC94092	Single	1.7–5.5	1.2	130	790	–	Active High	–	–	6-pin SC70, 1.2 × 1.2
MIC94093	Single	1.7–5.5	1.2	130	790	250	Active High	–	–	6-pin SC70, 1.2 × 1.2
MIC94094	Single	1.7–5.5	1.2	130	120	–	Active High	–	–	6-pin SC70, 1.2 × 1.2
MIC94095	Single	1.7–5.5	1.2	130	120	250	Active High	–	–	6-pin SC70, 1.2 × 1.2
MIC94161	Single	1.7–5.5	3.0	15.5	2700	–	Active High	–	✓	1.5 × 1 WLCSP
MIC94162	Single	1.7–5.5	3.0	15.5	60	200	Active High	–	✓	1.5 × 1 WLCSP
MIC94163	Single	1.7–5.5	3.0	15.5	60	–	Active High	–	✓	1.5 × 1 WLCSP
MIC94164	Single	1.7–5.5	3.0	15.5	2700	200	Active High	–	✓	1.5 × 1 WLCSP
MIC94165	Single	1.7–5.5	3.0	15.5	2700	–	Active High	–	✓	1.5 × 1 WLCSP
MIC95410	Single	0.5–5.5	7.0	6.6	1100	2300	Active High	–	–	10-pin 1.2 × 2.0 QFN
MIC94066	Dual	1.7–5.5	2	85	–	–	Active High	–	–	8-pin 2 × 2 MLF
MIC94067	Dual	1.7–5.5	2	85	–	200	Active High	–	–	8-pin 2 × 2 MLF
MIC94068	Dual	1.7–5.5	2	85	800	–	Active High	–	–	8-pin 2 × 2 MLF
MIC94069	Dual	1.7–5.5	2	85	800	200	Active High	–	–	8-pin 2 × 2 MLF

*Reduced Height Package

DISPLAY AND LED DRIVERS

DISPLAY AND LED DRIVERS: Electroluminescent Backlight Drivers								
Part #	**Type**	**Input Voltage Low (V)**	**Input Voltage High (V)**	**Nominal Output Voltage (V)**	**Max. Switch Resistance (Ω)**	**Output Regulation**	**Max. Lamp Size per Device (in²)**	**Packages**
16-Segment Drivers								
HV509	16-Segment Drivers	2	5.5	±50 to ±200	–	–	6.5	32-pin VQFN
HV528	16-Segment Drivers	1.7	5.5	±50 to ±200	–	–	6.5	32-pin VQFN
Offline Drivers								
HV809	Offline Driver	50	200	±50 to ±200	–	–	100	8-pin SOIC, 8-pin SOIC 150 mil
Single Lamp Drivers								
HV816	Single Lamp Driver	2.7	5.5	±180	–	Yes	42	16-pin QFN
HV823	Single Lamp Driver	2	9.5	±90	6	Yes	23	8-pin SOIC 150 mil
HV825	Single Lamp Driver	1	1.6	±56	15	No	3	8-pin MSOP, 8-pin SOIC 150 mil
HV830	Single Lamp Driver	2	9.5	±100	4	Yes	25	8-pin SOIC 150 mil
HV833	Single Lamp Driver	1.8	6.5	±90	4	Yes	12	8-pin MSOP
HV850	Single Inductorless Lamp Driver	3	4.2	±70	–	Yes	1.5	8-pin MSOP
HV852	Single Inductorless Lamp Driver	2.4	5	±80	–	Yes	1.5	10-pin WDFN, 8-pin MSOP
HV853	Single Inductorless Lamp Driver	3.2	5	±80	–	Yes	1.5	10-pin WDFN, 8-pin MSOP
HV857	Single Lamp Driver	1.8	5	±95	6	Yes	5	8-pin WDFN, 8-pin MSOP
HV857L	Single Lamp Driver	1.8	5	±95	6	Yes	5	8-pin WDFN, 8-pin MSOP
HV859	Single Lamp Driver	1.8	5	±105	6	Yes	5	8-pin WDFN, 8-pin MSOP
HV860	Single Lamp Driver	2.5	4.5	±110	6	Yes	5	12-pin WQFN
MIC4826	Single Lamp Driver	1.8	5.5	±80	7	Yes	3	8-pin MSOP
MIC4827	Single Lamp Driver	1.8	5.5	±90	7	Yes	3	8-pin MSOP
MIC4830	Single Lamp Driver	1.8	5.5	±90	7	Yes	4	8-pin MSOP, 8-pin VDFN
MIC4832	Single Lamp Driver	1.8	5.5	±110	7	Yes	3	8-pin MSOP, 8-pin VDFN
Dual Lamp Drivers								
HV861	Dual Lamp Drivers	2.5	4.5	±90	7	Yes	5	16-pin WQFN
MIC4833	Dual Lamp Drivers	2.3	5.8	±110	12	Yes	4	12-pin VDFN

DISPLAY AND LED DRIVERS: LED Drivers						
Part #	**Application**	**Topology**	**Input Voltage (V)**	**Ouput Current**	**Dimming**	**Packages**
Automotive (AEC-Q100 Certified) LED Drivers						
AT9917	Auto	Boost, Sepic	5.3–40	External FET	PWM/Linear	24- pin TSSOP
AT9919	Auto	Buck	4.5–40	External FET	PWM	8-pin DFN
AT9932	Auto	Boost-Buck (Ćuk)	5.3–40	External FET	PWM/Linear	24-pin TSSOP
AT9933	Auto	Boost-Buck (Ćuk)	9.0–75	External FET	PWM	8-pin SOIC
MAQ3203	Auto	Buck	4.5-42	External FET	PWM	8-pin SOIC

General Purpose LED Drivers										
Part #	**Topology**	**Input Voltage (V)**	**Dimming**	**I_Q Typ. (mA)**	**Switching Frequency (Hz)**	**Switching MOSFET**	**Dithered**	**ILED Accuracy**	**V_{FB} (V)**	**Packages**
HV9801A	Buck	15–450	4-Level Switch	1.0	100K	External FET	–	N/A	0.25	16-pin SOIC 150 mil, 8-pin SOIC 150 mil
HV9803B	Buck	7–13.2	PWM/Linear	1.5	100K	External FET	–	±2%	0.28	8-pin SOIC 150 mil
HV9805	2-Stage	102–265	–	2.5	370K	0.7A FET	–	N/A	1.25	10-pin MSOP
HV9861A	Buck	15–450	PWM/Linear	1.5	100K	External FET	–	±3%	0.27	16-pin SOIC 150 mil, 8-pin SOIC 150 mil
HV9910B	Buck	8–450	PWM/Linear	1.0	100K	External FET	–	±5%	0.25	16-pin SOIC 150 mil, 8-pin SOIC 150 mil

DISPLAY AND LED DRIVERS: LED Drivers (Continued)

Part #	Topology	Input Voltage (V)	Dimming	I_Q Typ. (mA)	Switching Frequency (Hz)	Switching MOSFET	Dithered	ILED Accuracy	V_{FB} (V)	Packages
General Purpose LED Drivers (Continued)										
HV9910C	Buck	15–450	PWM/Linear	1.0	100K	External FET	–	±5%	0.25	16-pin SOIC 150 mil, 8-pin SOIC 150 mil
HV9918	Buck	4.5–40	PWM	1.5	2M	0.7A FET	–	±5%	0.23	8-pin WDFN
HV9919B	Buck	4.5–40	PWM	1.5	2M	External FET	–	±5%	0.23	8-pin WDFN
HV9921	Buck	20–400	–	0.2	100K	20 mA	–	N/A	N/A	3-pin TO-92, 3-pin SOT-89
HV9922	Buck	20–400	–	0.2	100K	50 mA	–	N/A	N/A	3-pin TO-92, 3-pin SOT-89
HV9923	Buck	20–400	–	0.2	100K	30 mA	–	N/A	N/A	3-pin TO-92, 3-pin SOT-89
HV9925	Buck	20–400	PWM	0.3	100K	20–50 mA	–	N/A	0.47	8-pin SOIC
HV9930	Ćuk	8–200	PWM	1.0	Cariable	External FET	–	N/A	0.12	8-pin SOIC 150 mil
HV9931	Buck	8–450	PWM	1.0	100K	External FET	–	N/A	7.5	8-pin SOIC 150 mil
MIC3201	Buck	6–20	PWM	1.2	Hyst to 1.0M	1A FET	–	±5%	2	8-pin SOIC
MIC3202	Buck	6–37	PWM	1.2	Hyst to 1.0M	1A FET	✓	±5%	2	8-pin SOIC
MIC3202-1	Buck	6–37	PWM	1.2	Hyst to 1.0M	1A FET	–	±5%	2	8-pin SOIC
MIC3203	Buck	4.5–42	PWM	1.0	Hyst to 1.5M	External FET	✓	±5%	2	8-pin SOIC
MIC3203-1	Buck	4.5–42	PWM	1.0	Hyst to 1.5M	External FET	–	±5%	2	Please call for package information
MIC3205	Buck	4.5–40	PWM	1.3	Hyst to 1M	External FET	–	±5%	2	10-pin VDFN
MIC3230	Boost	6–45	PWM	3.2	100K–1.0M	External FET	–	±3%	0.25	16-pin TSSOP, 12-pin VDFN
MIC3231	Boost	6–45	PWM	3.2	100K–1.0M	External FET	✓	±3%	0.25	16-pin TSSOP, 12-pin VDFN
MIC3232	Boost	6–45	PWM	3.2	400K	External FET	–	±3%	0.25	10-pin MSOP

Backlight LED Drivers

Part #	Topology	Input Voltage (V)	Dimming	I_Q Typ. (mA)	Output Current	Int. Diode	V_{FB} (V)	Frequency	Packages
HV9803	Buck	7–13.2	PWM/Linear	1.5	External FET	N/A	0.8	100K	8-pin SOIC 150 mil
HV9911	Boost, SEPIC, Buck-Boost	9–250	PWM /Linear	N/A	External FET	N/A	0.45	100K	16-pin SOIC 150 mil
HV9912	Boost, SEPIC, Buck-Boost	9–100	PWM /Linear	N/A	External FET	N/A	0.45	100K	16-pin SOIC 150 mil
HV9961	Buck	8–450	PWM/Linear	3.5	External FET	N/A	0.27	100K	8-pin SOIC 150 mil, 16-pin SOIC 150mil
HV9963	Boost, SEPIC, Buck-Boost	8–40	PWM/Linear	N/A	External FET	N/A	N/A	100K	16-pin SOIC 150 mil
HV9967B	Buck	8–60	PWM/Linear	N/A	1A FET	N/A	0.24	100K	8-pin MSOP, 8-pin WDFN
HV9980	Buck	100–160	PWM/Linear	3.0	0.07A FET	N/A	N/A	500K	24-pin SOIC 300 mil
HV9985	Boost, SEPIC, Buck	10–40	PWM/Linear	1.5	External FET	N/A	N/A	500K	40-pin VQFN
MIC2282	Boost	0.9–15	N/A	0.12	1A BJT	N/A	0.22	20K	8-pin MSOP
MIC2287	Boost	2.5–10	PWM/Analog	2.5	2A BJT	N/A	0.095	1.2M	5-pin TSOT, 8-pin VDFN
MIC2287C	Boost	2.5–10	PWM/Analog	2.5	2A BJT	N/A	0.095	1.2M	5-pin TSOT, 8-pin VDFN
MIC2289	Boost	2.5–10	PWM/Analog	2.5	2A BJT	Yes	0.095	1.2M	6-pin TSOT, 8-pin VDFN
MIC2289C	Boost	2.5–10	PWM/Analog	2.5	2A BJT	Yes	0.095	1.2M	6-pin TSOT
MIC2291	Boost	2.5–10	PWM/Analog	2.8	2A BJT	N/A	0.095	1.2M	5-pin TSOT, 8-pin VDFN
MIC2292	Boost	2.5–10	PWM/Analog	2.5	2A BJT	Yes	0.095	1.6M	8-pin VDFN
MIC2292C	Boost	2.5–10	PWM/Analog	2.5	2A BJT	Yes	0.095	1.6M	8-pin VDFN
MIC2293	Boost	2.5–10	PWM/Analog	2.5	2A BJT	Yes	0.095	2.0M	8-pin VDFN
MIC2293C	Boost	2.5–10	PWM/Analog	2.5	2A BJT	Yes	0.095	2.0M	8-pin VDFN
MIC2297	Boost	2.5–10	PWM/Analog	4	3A BJT	N/A	0.2	600K	10-pin VDFN
MIC2298	Boost	2.5–10	PWM/Analog	15	6A BJT	N/A	0.2	1.0M	12-pin VDFN
MIC2299	Boost	2.5–10	PWM/Analog	15	8A BJT	N/A	0.2	2.0M	12-pin VDFN
MIC3223	Boost	4.5–20	PWM	2.1	10A FET	N/A	0.2	1.0M	16-pin TSSOP
MIC3263	Boost	6–40	PWM	6.5	2A BJT	N/A	2.36	400K–1.8M	24-pin VQFN
MIC3287	Boost	2.8–6.5	PWM/Analog	2.1	1A BJT	N/A	0.25	1.2M	5-pin TSOT, 6-pin TSOT, 8-pin VDFN
MIC3289	Boost	2.5–6.5	1-Wire	1.4	2A BJT	Yes	0.25	1.2M	6-pin TSOT, 8-pin VDFN

DISPLAY AND LED DRIVERS: LED Drivers (Continued)											
Part #	**Input Voltage (V)**	**# of White LEDs**	**Dimming**	**I_Q Typ. (mA)**	**V Dropout LED @ 20 mA**	**ILED Matching**	**Ext. LDOs**	**$V_{DROPOUT}$**	**IQLDO**	**Comments**	**Packages**
Linear Regulators											
MIC2841A	3–5.5	4 @ 20 mA	PWM (200 Hz–500 kHz)	1.4	40 mV	±1.5%	–	–	–	DAM&trade	10-pin UDFN
MIC2842A	3–5.5	4 @ 20 mA	1-Wire, 48-Steps	1.4	40 mV	±1.5%	–	–	–	DAM&trade	10-pin UDFN
MIC2843A	3–5.5	6 @ 20 mA	PWM (200 Hz–500 kHz)	1.4	40 mV	±1.5%	–	–	–	DAM&trade	10-pin UDFN
MIC2844A	3–5.5	6 @ 20 mA	1-Wire, 48-Steps	1.4	40 mV	±1.5%	–	–	–	DAM&trade	10-pin UDFN
MIC2846A	3–5.5	6 @ 20 mA	1-Wire, 48-Steps	1.4	40 mV	±1.5%	2	150	35	DAM&trade	14-pin VQFN
MIC2860-2D	3–5.5	2 @ 30.2 mA	1-Wire, 32-Steps	0.7	52 mV	±0.5%	–	–	–		6-pin SC70, 6-pin SOT-23
MIC2860-2P	3–5.5	2 @ 30.2 mA	PWM down to 250Hz	0.7	52 mV	±0.5%	–	–	–		6-pin SC70, 6-pin SOT-23
MIC4811	3–5.5	6 @ 50 mA	PWM (200 Hz–500 kHz)	1.7	100 mV @ 50 mA	±1.0%	–	–	–	DAM&trade	10-pin MSOP
MIC4812	3–5.5	6 @ 100 mA	PWM (200 Hz–500 kHz)	3.2	190 mV @ 100 mA	±1.0%	–	–	–	DAM&trade	10-pin eMSOP
MIC4801	3–5.5	1 @ 600 mA	PWM (200 Hz–500 kHz)	2.2	130 mV @ 400 mA	N/A	–	–	–	±1% Accuracy	8-pin SOIC
MIC4802	3–5.5	1 @ 800 mA	PWM (200 Hz–500 kHz)	4.1	280 mV @ 800 mA	N/A	–	–	–	±1% Accuracy	8-pin eSOIC

Display LED Drivers						
Part #	**Input Voltage (V)**	**Sink Current (mA)**	**Segments**	**LEDs**	**Description**	**Packages**
MIC5400	4.75–5.5	30	N/A	2 banks of 8	Driving Large LED Array in Signs	28-pin SOIC
MM5450	4.75–11	15	34	N/A	7-Segment LED Driver with EN	40-pin PDIP, 44-pin PLCC
MM5451	4.75–11	15	35	N/A	7-Segment LED Driver	40-pin PDIP, 44-pin PLCC

Sequential Linear LED Drivers							
Part #	**V_{IN} (V)**	**V_{OUT} (V)**	**Output Current (mA)**	**Dimming**	**Parallelable**	**Features**	**Packages**
CL8800	90–275	70–350	115	External Dimmer	Yes	6-Stage	33-pin QFN
CL8801	90–275	70–350	200	External Dimmer	Yes	4-Stage	33-pin QFN

Camera Flash LED Drivers									
Part #	**Input Voltage (V)**	**# of LED Channels**	**Max. LED Current (mA)**	**Standby Current (mA)**	**Switch Frequency (MHz)**	**Peak Efficiency (%)**	**Current Accuracy (%)**	**Interface**	**Packages**
MIC2870	2.7–5	2	1500	0.90	2	94	±10	I^2C	16-pin TQFN
MIC2871	2.7–5.5	1	1200	0.23	2	94	±5	Single-Wire	14-pin LDFN
MIC2873	2.7–5.5	1	1200	0.17	2	92	±8	Single-Wire	9-pin WLCSP
MIC2874	2.7–5.5	1	1200	0.17	4	92	±8	Single-Wire	9-pin WLCSP

HIGH-VOLTAGE INTERFACE

HIGH-VOLTAGE INTERFACE: Driver Arrays								
Part #	**Output Channels**	**V_{OUT} Operating (V) Transient**	**V_{OUT} Operating (V) Sustained**	**Input Structure**	**Output Structure**	**I_{OUT} (mA) per Channel**	**Min. Data Clock (MHz)**	**Packages**
Source								
HV57009	64	95	85	Serial	P-Ch Open Drain	–2 (Programmable)	16	80-pin PQFP
MIC2981/82	8	50	50	Parallel	Darlington Open Emitter	–500	–	18-pin PDIP, 18-pin SOIC 300 mil
MIC5891	8	35	35	Serial	Darlington Open Emitter	–500	5	16-pin PDIP, 16-pin SOIC 300 mil
Sink								
HV5122	32	250	225	Serial	N-Ch Open Drain	100	8	44-pin PLCC, 44-pin PQFP
HV5222	32	250	225	Serial	N-Ch Open Drain	100	8	44-pin CERQUAD, 44-pin PLCC, 44-pin PQFP
HV5522	32	230	220	Serial	N-Ch Open Drain	100	8	44-pin PLCC, 44-pin PQFP, 44-pin WQFN
HV5523	32	230	220	Serial	N-Ch Open Drain	100	16	44-pin WQFN
HV5530	32	315	300	Serial	N-Ch Open Drain	100	8	44-pin PLCC, 44-pin PQFP
HV5622	32	250	220	Serial	N-Ch Open Drain	100	8	44-pin PLCC, 44-pin PQFP, 44-pin WQFN

HIGH-VOLTAGE INTERFACE: Driver Arrays (Continued)								
Part #	Output Channels	V_{OUT} Operating (V) Transient	V_{OUT} Operating (V) Sustained	Input Structure	Output Structure	I_{OUT} (mA) per Channel	Min. Data Clock (MHz)	Packages
Sink (Continued)								
HV5623	32	250	220	Serial	N-Ch Open Drain	100	16	44-pin WQFN
HV5630	32	315	300	Serial	N-Ch Open Drain	100	8	44-pin PLCC
MIC5800	4	50	50	Parallel	Darlington Open Collector	400	–	14-pin PDIP, 14-pin SOIC 150 mil
MIC5801	8	50	50	Parallel	Darlington Open Collector	400	–	24-pin SOIC 300 mil, 28-pin PLCC
MIC5821	8	50	35	Serial	Darlington Open Collector	400	5	16-pin PDIP
MIC5822	8	80	50	Serial	Darlington Open Collector	400	3.3	16-pin PDIP
MIC5841	8	50	35	Serial	Darlington Open Collector	400	3.3	18-pin PDIP, 18-pin SOIC 300 mil, 20-pin PLCC
MIC5842	8	80	50	Serial	Darlington Open Collector	400	3.3	18-pin PDIP, 18-pin SOIC 300 mil, 20-pin PLCC
MIC58P01	8	80	80	Parallel	Darlington Open Collector	400	–	24-pin SOIC 300 mil, 28-pin PLCC
MIC58P42	8	80	50	Serial	Darlington Open Collector	400	3.3	18-pin PDIP, 18-pin SOIC 300 mil
MIC59P50	8	80	80	Parallel	Darlington Open Collector	400	–	24-pin PDIP 600 mil, 24-pin SOIC 300 mil, 28-pin PLCC
MIC59P60	8	80	50	Serial	Darlington Open Collector	400	3.3	20-pin PDIP, 20-pin SOIC 300 mil
Source-Sink								
HV3418	64	200	180	Serial	Half-Bridge	±5.0	6	80-pin PQFP
HV507	64	320	300	Serial	Half-Bridge	±1.0	8	80-pin PQFP
HV508	2	60	45	Parallel	Half-Bridge	–2.8, +0.38	–	8-pin SOIC 150 mil
HV513	8	275	250	Serial	Half-Bridge	±20	8	24-pin SOIC 300 mil, 32-pin WQFN
HV518	32	90	80	Serial	Half-Bridge	–12.5	6	40-pin PDIP, 44-pin PLCC
HV5308	32	90	80	Serial	Half-Bridge	±20	8	44-pin CERQUAD, 44-pin PLCC, 44-pin PQFP
HV5408	32	90	80	Serial	Half-Bridge	±20	8	44-pin PLCC, 44-pin PQFP
HV574	80	90	80	Serial	Half-Bridge	–2	25	100-pin PQFP
HV57708	64	90	80	Serial	Half-Bridge	–1.25	6	80-pin PQFP
HV57908	64	90	80	Serial	Half-Bridge	–1.25	8	80-pin PQFP
HV5812	20	90	80	Serial	Half-Bridge	–12.5	5	28-pin PDIP, 28-pin PLCC, 28-pin SOIC 300 mil
HV582	96	85	80	Serial	Half-Bridge	±75	30	169-pin TFBGA
HV583	128	90	80	Serial	Half-Bridge	±30	40	169-pin TFBGA
HV66	32	70	60	Serial	Half-Bridge	±5.0	5	44-pin PLCC, 44-pin PQFP
HV6810	10	90	80	Serial	Half-Bridge	–250	5	20-pin SOIC 300 mil
HV7022	34	250	230	Serial	Half-Bridge	±70	4	44-pin PLCC
HV7224	40	260	240	Serial	Half-Bridge	±70	3	64-pin PQFP
HV7620	32	225	200	Serial	Half-Bridge	±50	10	64-pin PQFP
HV9308	32	90	80	Serial	Half-Bridge	–4	8	44-pin PLCC, 44-pin PQFP
HV9408	32	90	80	Serial	Half-Bridge	–4	8	44-pin PLCC, 44-pin PQFP
HV9808	32	90	80	Serial	Half-Bridge	–4	8	44-pin PLCC

HIGH-VOLTAGE INTERFACE: Amplifiers and MEMS Drivers								
Part #	Output Channels	Slew Rate (V/µs)	Closed Loop Gain (V/V)	Feedback Resistance (MΩ)	Source Current (Max. µA)	Sink Current (Max. µA)	Output Capacitive Load (Max. pF)	Packages
HV254	32	3	50	12	300	300	100	100-pin MQFP
HV256	32	2	72	12	715	715	3000	100-pin MQFP
HV257	32	2	72	12	500	500	3000	100-pin MQFP
HV264	4	9	66.7	5.3	3000	3000	15	24-pin TSSOP

HIGH-VOLTAGE INTERFACE: MOSFETs – Interface

Part #	BV_{DSX} Min. (V)	$R_{DS(ON)}$ Max. (Ω)	$V_{GS(OFF)}$ Min. (V)	$V_{GS(OFF)}$ Max. (V)	Packages
Depletion-Mode N-Channel					
LND01	9	1.4	–0.8	–3	5-pin SOT-23
DN1509	90	6	–1.8	–3.5	3-pin SOT-89, 5-pin SOT-23
DN2625	250	3.5	–1.5	–2.1	8-pin VDFN, 3-pin DPAK
DN3525	250	6	–1.5	–3.5	3-pin SOT-89
DN2530	300	12	–1	–3.5	3-pin TO-92, 3-pin SOT-89
DN3535	350	10	–1.5	–3.5	3-pin SOT-89
DN2535	350	25	–1.5	–3.5	3-pin TO-92, 3-pin TO-220
DN3135	350	35	–1.5	–3.5	3-pin SOT-89, 3-pin SOT-23
DN2540	400	25	–1.5	–3.5	3-pin TO-92, 3-pin SOT-89, 3-pin TO-220
DN3545	450	20	–1.5	–3.5	3-pin TO-92, 3-pin SOT-89
DN3145	450	60	–1.5	–3.5	3-pin SOT-89
DN2450	500	10	–1.5	–3.5	3-pin DPAK, 3-pin SOT-89
LND150	500	1000	–1	–3	3-pin TO-92, 3-pin SOT-89, 3-pin SOT-23
LND250	500	1000	–1	–3	3-pin SOT-23
DN3765	650	8	–1.5	–3.5	3-pin DPAK
DN2470	700	42	–1.5	–3.5	3-pin DPAK

Enhancement-Mode N-Channel					
Part #	**BV_{DSS} Min. (V)**	**$R_{DS(ON)}$ Max. (Ω)**	**C_{ISS} Max. (pF)**	**$V_{GS(TH)}$ Max. (V)**	**Packages**
TN2501	18	2.5	110	1.0	3-pin SOT-89
TN0702	20	1.3	200	1.0	3-pin TO-92
VN0300	30	1.2	190	2.5	3-pin TO-92
TN0604	40	0.8	190	1.6	3-pin TO-92
TN2504	40	1.0	125	1.6	3-pin SOT-89
TN0104	40	2.0	70	1.6	3-pin TO-92, 3-pin SOT-89
VN0104	40	3.0	65	2.4	3-pin TO-92
VN3205	50	0.3	300	2.4	3-pin TO-92, 3-pin SOT-89
TN0606	60	1.5	150	2.0	3-pin TO-92
TN2106	60	2.5	50	2.0	3-pin TO-92, 3-pin SOT-23
2N6660	60	3.0	50	2.0	3-pin TO-39
TN0106	60	3.0	60	2.0	3-pin TO-92
VN0106	60	3.0	65	2.4	3-pin TO-92
VN0606	60	3.0	50	2.0	3-pin TO-92
VN2106	60	4.0	50	2.4	3-pin TO-92
2N7000	60	5.0	60	3.0	3-pin TO-92
2N7002	60	7.5	50	2.5	3-pin SOT-23
2N7008	60	7.5	50	2.5	3-pin TO-92
VN2222L	60	7.5	60	2.5	3-pin TO-92
VN0808	80	4.0	50	2.0	3-pin TO-92
VN0109	90	3.0	65	2.4	3-pin TO-92
2N6661	90	4.0	50	2.0	3-pin TO-39
VN2210	100	0.4	500	2.4	3-pin TO-92, 3-pin TO-39

HIGH-VOLTAGE INTERFACE: MOSFETs – Interface (Continued)					
Part #	**BV_{DSS} Min. (V)**	**$R_{DS(ON)}$ Max. (Ω)**	**C_{ISS} Max. (pF)**	**$V_{GS(TH)}$ Max. (V)**	**Packages**
Enhancement-Mode N-Channel (Continued)					
TN0610	100	1.5	150	2.0	3-pin TO-92
TN2510	100	1.5	125	2.0	3-pin SOT-89
TN0110	100	3.0	60	2.0	3-pin TO-92
VN2110	100	4.0	50	2.4	3-pin SOT-23
VN1206	120	6.0	125	2.0	3-pin TO-92
TN0620	200	6.0	150	1.6	3-pin TO-92
VN2224	240	1.3	350	3.0	3-pin TO-92
TN2524	240	6.0	125	2.0	3-pin SOT-89
VN2406	240	6.0	125	2.0	3-pin TO-92
VN2410	240	10.0	125	2.0	3-pin TO-92
TN2124	240	15.0	50	2.0	3-pin SOT-23
TN2425	250	3.5	200	2.0	3-pin SOT-89
TN5325	250	7.0	110	2.0	3-pin TO-92, 3-pin SOT-89, 3-pin SOT-23
TN2130	300	25.0	50	2.4	3-pin SOT-23
TN2435	350	6.0	200	0.8 (min)	3-pin SOT-89
TN5335	350	15.0	110	2.0	3-pin SOT-89, 3-pin SOT-23
TN2640	400	5.0	225	2.0	3-pin DPAK, 3-pin TO-92, 8-pin SOIC 150 mil
TN2540	400	12.0	125	2.0	3-pin TO-92, 3-pin SOT-89
VN4012	400	12.0	110	1.8	3-pin TO-92
VN2450	500	13.0	150	4.0	3-pin TO-92, 3-pin SOT-89
VN0550	500	60.0	55	4.0	3-pin TO-92
VN2460	600	20.0	150	4.0	3-pin TO-92, 3-pin SOT-89
Enhancement-Mode P-Channel					
LP0701	–16.5	1.5	250	–1.0	3-pin TO-92, 8-pin SOIC 150 mil
TP2502	–20	2.0	125	–2.4	3-pin SOT-89
VP3203	–30	0.6	300	–3.5	3-pin TO-92, 3-pin SOT-89
TP0604	–40	2.0	150	–2.4	3-pin TO-92
TP2104	–40	6.0	60	–2.0	3-pin TO-92, 3-pin SOT-23
VP0104	–40	8.0	60	–3.5	3-pin TO-92
VP2206	–60	0.9	450	–3.5	3-pin TO-92, 3-pin TO-39
VP0106	–60	8.0	60	–3.5	3-pin TO-92
VP2106	–60	12.0	60	–3.5	3-pin TO-92
VP0808	–80	5.0	150	–4.5	3-pin TO-92
VP0109	–90	8.0	60	–3.5	3-pin TO-92
TP2510	–100	3.5	125	–2.4	3-pin SOT-89
VP2110	–100	12.0	60	–3.5	3-pin SOT-23
TP0620	–200	12.0	150	–2.4	3-pin TO-92
TP2520	–200	12.0	125	–2.0	3-pin SOT-89
TP2522	–220	12.0	125	–2.4	3-pin SOT-89
TP5322	–220	12.0	110	–2.4	3-pin SOT-89, 3-pin SOT-23
TP2424	–240	8.0	200	–2.4	3-pin SOT-89
TP2435	–350	15.0	200	–2.4	3-pin SOT-89
TP2635	–350	15.0	300	–2.0	3-pin TO-92
TP2535	–350	25.0	125	–2.4	3-pin TO-92
TP5335	–350	30.0	110	–2.4	3-pin SOT-23
TP2640	–400	15.0	300	–2.0	3-pin TO-92, 8-pin SOIC 150 mil
TP2540	–400	25.0	125	–2.4	3-pin TO-92, 3-pin SOT-89
VP2450	–500	30.0	190	–3.5	3-pin TO-92, 3-pin SOT-89
VP0550	–500	125.0	70	–4.5	3-pin TO-92

HIGH-VOLTAGE INTERFACE: MOSFETs – Interface (Continued)					
Part #	**BV_{DSS} Min. (V)**	**$R_{DS(ON)}$ Max. (Ω)**	**C_{ISS} Typ. (pF)**	**$V_{GS(TH)}$ Max. (V)**	**Packages**
Enhancement-Mode P-Channel (Continued)					
TN2501	18	2.5	110	1.0	3-pin SOT-89
TN0702	20	1.3	200	1.0	3-pin TO-92
VN0300	30	1.2	190	2.5	3-pin TO-92
TN0604	40	0.8	190	1.6	3-pin TO-92
TN2504	40	1.0	125	1.6	3-pin SOT-89
TN0104	40	2.0	70	1.6	3-pin TO-92, 3-pin SOT-89
VN0104	40	3.0	65	2.4	3-pin TO-92
VN3205	50	0.3	300	2.4	3-pin TO-92, 3-pin SOT-89
TN0606	60	1.5	150	2.0	3-pin TO-92
TN2106	60	2.5	50	2.0	3-pin TO-92, 3-pin SOT-23
2N6660	60	3.0	50	2.0	3-pin TO-39
TN0106	60	3.0	60	2.0	3-pin TO-92
VN0106	60	3.0	65	2.4	3-pin TO-92
VN0606	60	3.0	50	2.0	3-pin TO-92
VN2106	60	4.0	50	2.4	3-pin TO-92
2N7000	60	5.0	60	3.0	3-pin TO-92
2N7002	60	7.5	50	2.5	3-pin SOT-23
2N7008	60	7.5	50	2.5	3-pin TO-92
VN2222L	60	7.5	60	2.5	3-pin TO-92
VN0808	80	4.0	50	2.0	3-pin TO-92
VN0109	90	3.0	65	2.4	3-pin TO-92
2N6661	90	4.0	50	2.0	3-pin TO-39
VN2210	100	0.4	500	2.4	3-pin TO-92, 3-pin TO-39
N-Channel (Enhancement-Mode MOSFET Arrays)					
TD9944	240	6	65	2	8-pin SOIC

Complimentary (Enhancement-Mode MOSFET Arrays)							
Part #	**BV_{DSS} N-Channel (V)**	**BV_{DSS} P-Channel (V)**	**$R_{DS(ON)}$ N-Channel Max. (Ω)**	**$R_{DS(ON)}$ P-Channel Max. (Ω)**	**$V_{GS(TH)}$ Max. (V)**	**Details**	**Packages**
TC1550	500	–500	60.0	125.0	4.0	N- and P-Channel Pair	8-pin SOIC
TC2320	200	–200	7.0	12.0	2.0	N- and P-Channel Pair	8-pin SOIC
TC6215	150	–150	4.0	7.0	2.0	N- and P-Channel Pair	8-pin SOIC
TC6320	200	–200	7.0	8.0	2.0	N- and P-Channel Pair	8-pin SOIC, 8-pin VDFN
TC7920	200	–200	7.0	8.0	2.0	2 N- and P-Channel Pairs	12-pin VDFN
TC8020	200	–200	8.0	9.5	3.0	6 N- and P-Channel Pairs	56-pin VQFN
TC8220	200	–200	5.3	6.5	2.0	2 N- and P-Channel Pairs	12-pin VDFN

HIGH-VOLTAGE INTERFACE: Application Specific								
Part #	**DC/DC**	**Input Voltage Min. (V)**	**Input Voltage Max. (V)**	**Output Voltage Min. (V_{RMS})**	**Output Voltage Max. (V_{RMS})**	**Load Min. (pF)**	**Load Max. (pF)**	**Packages**
Liquid Lens Driver								
HV892	Internal Charge Pump	2.65	5.5	10	60	100	200	10-pin WDFN

Complimentary MOSFET Level Translator and Driver							
Part #	**# of Channels**	**Input Voltage Low (V)**	**Input Voltage High (V)**	**Output Voltage Low (V)**	**Output Voltage High (V)**	**Input to Output Isolation (V)**	**Packages**
HT0440	2	3.15	5.5	6	10	±400	10-pin VDFN, 8-pin SOIC 150 mil
HT0740	1	3.15	5.5	4.5	8.5	±400	8-pin SOIC 150 mil

High-Side Current Monitor						
Part #	**V_{IN} (V)**	**Gain**	**Rise and Fall Time (µs)**	**V_{SENSE} Max. (mV)**	**Quiescent Current Max. (µA)**	**Packages**
HV7800	8.0–450	Fixed, 1	0.7–2.0	500	50	5-pin SOT-23
HV7801	8.0–450	Fixed, 5	0.7–2.0	500	50	5-pin SOT-23
HV7802	8.0–450	Adjustable	0.7–1.4	500	50	8-pin MSOP

Fault Protection					
Part #	**Voltage (V)**	**# of Channels**	**Ron (Ω)**	**V_{OFF} (V)**	**Packages**
FP0100	100	1	4.5	4.5	3-pin SOT-89

Relay Driver and Controller												
Part #	**V_{IN} Min. (V)**	**V_{IN} Max. (V)**	**I_{IN} Max. (mA)**	**Oscillator Frequency Min. (kHz)**	**Oscillator Frequency Max. (kHz)**	**Oscillator Frequency f_{SYNC} Min. (kHz)**	**Max Output Duty Cycle (%)**	**Typical Current Sense Pull-In (V)**	**Typical Current Sense Hold**	**External Adjustable Regulator Output Voltage (V)**	**External Adjustable Regulator Output Current (mA)**	**Packages**
HV9901	10	450	2	20	140	150	99.5	0.883	Adjustable	2.0 - 5.5	0 - 1.0	14-pin SOIC

LINEAR

LINEAR: Op Amps										
Part #	**# Per Package**	**GBWP**	**I_Q Typical (µA)**	**V_{OS} Max (mV)**	**Typical Input Bias Current (pA)**	**Input Voltage Noise Density (nV/rtHz)**	**Operating Voltage (V)**	**Temperature Range (°C)**	**Features**	**Packages**
MCP6441	1	9 kHz	0.45	4.5	1	190(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S), 5-pin SC-70(S)
MCP6442	2	9 kHz	0.45	4.5	1	190(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN
MCP6444	4	9 kHz	0.45	4.5	1	190(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6031	1	10 kHz	0.9	0.15	1	165(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN, 5-pin SOT-23
MCP6032	2	10 kHz	0.9	0.15	1	165(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP
MCP6033	1	10 kHz	0.9	0.15	1	165(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP6034	4	10 kHz	0.9	0.15	1	165(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6041	1	14 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 5-pin SOT-23(S)

Legend: S = Standard Pinout; R = Reverse Pinout; U = Alternative Pinout
Note 1: Values are typical at 1 kHz
2: Values are typical at 10 kHz

LINEAR: Op Amps (Continued)										
Part #	# Per Package	GBWP	I_Q Typical (µA)	V_{OS} Max (mV)	Typical Input Bias Current (pA)	Input Voltage Noise Density (nV/rtHz)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6042	2	14 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6043	1	14 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 6-pin SOT-23(S)
MCP6044	4	14 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MIC7111	1	25 kHz	20	7	1	110	1.8 to 11	–40 to +85	Rail-to-Rail Input/Output	5-pin SOT-23
MCP6421	1	90 kHz	4.4	1	1	95(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	5-pin SOT-23(S), 5-pin SC-70(S)
MCP6422	2	90 kHz	4.4	1	1	95(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	8-pin SOIC, 8-pin MSOP
MCP6424	4	90 kHz	4.4	1	1	95(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	14-pin SOIC, 14-pin TSSOP
MCP6141	1	100 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output, G >10 stable	5-pin SOT-23(S), 8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6142	2	100 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output, G >10 stable	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6143	1	100 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output, G >10 stable, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 6-pin SOT-23(S)
MCP6144	4	100 kHz	0.6	3	1	170(1)	1.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output, G >10 stable	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP606	1	155 kHz	19	0.25	1	38(1)	2.5 to 6.0	–40 to +85	Rail-to-Rail Output	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP, 5-pin SOT23(S)
MCP607	2	155 kHz	19	0.25	1	38(1)	2.5 to 6.0	–40 to +85	Rail-to-Rail Output	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP
MCP608	1	155 kHz	19	0.25	1	38(1)	2.5 to 6.0	–40 to +85	Rail-to-Rail Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP
MCP609	4	155 kHz	19	0.25	1	38(1)	2.5 to 6.0	–40 to +85	Rail-to-Rail Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP616	1	190 kHz	19	0.15	15000	32(1)	2.3 to 5.5	–40 to +85	Rail-to-Rail Output, PNP input	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP617	2	190 kHz	19	0.15	15000	32(1)	2.3 to 5.5	–40 to +85	Rail-to-Rail Output, PNP input	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP618	1	190 kHz	19	0.15	15000	32(1)	2.3 to 5.5	–40 to +85	Rail-to-Rail Output, Chip select, PNP input	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP619	4	190 kHz	19	0.15	15000	32(1)	2.3 to 5.5	–40 to +85	Rail-to-Rail Output, PNP input	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6231	1	300 kHz	20	5	1	52(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN, 5-pin SC-70(U), 5-pin SOT-23(S, R, U)
MCP6232	2	300 kHz	20	5	1	52(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN
MCP6234	4	300 kHz	20	5	1	52(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MIC864	2	350 kHz	33	15	2.5	–	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2.5 x 2.5 DFN
MCP6051	1	385 kHz	30	0.15	1	34(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 DFN, 5-pin SOT-23(S)
MCP6052	2	385 kHz	30	0.15	1	34(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 DFN
MCP6054	4	385 kHz	30	0.15	1	34(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MIC861	1	400 kHz	4.6	10	20	–	2.43 5.25	–40 to +85	Rail-to-Rail Output	5-pin SC-70
MIC863	2	450 kHz	4.2	6.0	10	–	2.0 to 5.25	–40 to +85	Rail-to-Rail Output	8-pin SOT-23
LMC7101	1	500 kHz	500	6	1	37	2.7 to 12	–40 to +85	Rail-to-Rail Input/Output	5-pin SOT-23
MIC7300	1	500 kHz	1000	9	0.5	37	2.2 to 10	–40 to +85	Rail-to-Rail Input/Output, High Output Drive	5-pin SOT-23, 8-pin MSOP
MCP6241	1	550 kHz	50	5	1	45(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN, 5-pin SC-70(U), 5-pin SOT-23(S ,R, U)
MCP6242	2	550 kHz	50	5	1	45(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6244	4	550 kHz	50	5	1	45(1)	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6061	1	730 kHz	60	0.15	1	25(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 DFN, 5-pin SOT-23(S)
MCP6062	2	730 kHz	60	0.15	1	25(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 DFN
MCP6064	4	730 kHz	60	0.15	1	25(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MIC7122	2	750 kHz	800	9	1	37	2.2 to 15	–40 to +85	Rail-to-Rail Input/Output	8-pin MSOP
MCP6001	1	1 MHz	100	4.5	1	28(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S, R, U), 5-pin SC-70(R)
MCP6002	2	1 MHz	100	4.5	1	28(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP6004	4	1 MHz	100	4.5	1	28(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6401	1	1 MHz	45	4.5	1	28(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S, R, U), 5-pin SC-70(R)
MCP6402	2	1 MHz	45	4.5	1	28(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6404	4	1 MHz	45	4.5	1	28(1)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6L01	1	1 MHz	85	5	2	24(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S, R, U), 5-pin SC-70(S)
MCP6L02	2	1 MHz	85	5	2	24(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP
MCP6L04	4	1 MHz	85	5	2	24(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6071	1	1.2 MHz	110	0.15	1	19(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 DFN, 5-pin SOT-23(S)
MCP6072	2	1.2 MHz	110	0.15	1	19(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 DFN

Legend: S = Standard Pinout; R = Reverse Pinout; U = Alternative Pinout

Note 1: Values are typical at 1 kHz

2: Values are typical at 10 kHz

LINEAR: Op Amps (Continued)

Part #	# per Package	GBWP	I_Q Typical (µA)	Vos Max (mV)	Typical Input Bias Current (pA)	Input Voltage Noise Density (nV/rtHz)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6074	4	1.2 MHz	110	0.15	1	19(2)	1.8 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6H01	1	1.2 MHz	135	3.5	10	35(1)	Single Supply: 3.5 to 16 Dual Supply: ±1.75 to ±8	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN, 5-pin SOT-23(S), 5-pin SC-70(S)
MCP6H02	2	1.2 MHz	135	3.5	10	35(1)	Single Supply: 3.5 to 16 Dual Supply: ±1.75 to ±8	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6H04	4	1.2 MHz	135	3.5	10	35(1)	Single Supply: 3.5 to 16 Dual Supply: ±1.75 to ±8	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin TSSOP
MCP6271	1	2 MHz	170	3	1	20(1)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 5-pin SOT-23(S, R)
MCP6272	2	2 MHz	170	3	1	20(1)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6273	1	2 MHz	170	3	1	20(1)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 6-pin SOT-23(S)
MCP6274	4	2 MHz	170	3	1	20(1)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6275	2	2 MHz	150	3	1	20(1)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output, Dual connected, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6471	1	2 MHz	100	1.5	1	27(1)	2.0 to 5.5	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S), 5-pin SC-70(S)
MCP6472	2	2 MHz	100	1.5	1	27(1)	2.0 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN
MCP6474	4	2 MHz	100	1.5	1	27(1)	2.0 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6L71	1	2 MHz	150	4	1	19(2)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC(S), 8-pin MSOP(S), 5-pin SOT-23(S, R)
MCP6L72	2	2 MHz	150	4	1	19(2)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP
MCP6L74	4	2 MHz	150	4	1	19(2)	2.0 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MIC6211	1	2.5 MHz	1200	7	50000	–	4.0 to 32	–40 to +85	–	5-pin SOT-23
MCP6H71	1	2.7 MHz	480	4	10	28(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6H72	2	2.7 MHz	480	4	10	28(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6H74	4	2.7 MHz	480	4	10	28(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin TSSOP
MCP601	1	2.8 MHz	230	2	1	29(1)	2.7 to 6.0	–40 to +125	Rail-to-Rail Output	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP, 5-pin SOT-23(S, R)
MCP602	2	2.8 MHz	230	2	1	29(1)	2.7 to 6.0	–40 to +125	Rail-to-Rail Output	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP
MCP603	1	2.8 MHz	230	2	1	29(1)	2.7 to 6.0	–40 to +125	Rail-to-Rail Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP, 6-pin SOT-23(S)
MCP604	4	2.8 MHz	230	2	1	29(1)	2.7 to 6.0	–40 to +125	Rail-to-Rail Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6L1	1	2.8 MHz	200	3	1	21(2)	2.7 to 6.0	–40 to +125	Rail-to-Rail Output	8-pin SOIC(S), 8-pin MSOP(S), 5-pin SOT-23(S, R)
MCP6L2	2	2.8 MHz	200	3	1	21(2)	2.7 to 6.0	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin MSOP
MCP6L4	4	2.8 MHz	200	3	1	21(2)	2.7 to 6.0	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin TSSOP
MIC862	2	3.0 MHz	31	6	10	-	2.0 to 5.25	–40 to +85	Rail-to-Rail Output	8-pin SOT-23
MCP6286	1	3.5 MHz	540	1.5	1	5.4(2)	2.2 to 5.5	–40 to +125	Rail-to-Rail Output, Low noise	5-pin SOT-23(S, R)
MIC860	1	4.0 MHz	33	20	20	-	2.43 5.25	–40 to +85	Rail-to-Rail Output	5-pin SC-70
MCP6481	1	4 MHz	240	1.5	1	23(1)	2.2 to 5.5	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S), 5-pin SC-70(S)
MCP6482	2	4 MHz	240	1.5	1	23(1)	2.2 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN
MCP6484	4	4 MHz	240	1.5	1	23(1)	2.2 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6281	1	5 MHz	445	3	1	16(1)	2.2 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 5-pin SOT-23(S, R)
MCP6282	2	5 MHz	445	3	1	16(1)	2.2 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6283	1	5 MHz	445	3	1	16(1)	2.2 to 6.0	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 6-pin SOT-23(S, R)
MCP6284	4	5 MHz	445	3	1	16(1)	2.2 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6285	2	5 MHz	400	3	1	16(1)	2.2 to 6.0	–40 to +125	Rail-to-Rail Input/Output, Dual connected, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6H81	1	5.5 MHz	700	4	10	23(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6H82	2	5.5 MHz	700	4	10	23(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6H84	4	5.5 MHz	700	4	10	23(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin 2 × 3 TDFN
MCP6491	1	7.5 MHz	530	1.5	1	19(1)	2.4 to 5.5	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S), 5-pin SC-70(S)
MCP6492	2	7.5 MHz	530	1.5	1	19(1)	2.4 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN

Legend: S = Standard Pinout; R = Reverse Pinout; U = Alternative Pinout

Note 1: Values are typical at 1 kHz

2: Values are typical at 10 kHz

LINEAR: Op Amps (Continued)										
Part #	# per Package	GBWP	I_Q Typical (µA)	V_{OS} Max (mV)	Typical Input Bias Current (pA)	Input Voltage Noise Density (nV/rtHz)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6494	4	7.5 MHz	530	1.5	1	19(1)	2.4 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6021	1	10 MHz	1000	0.5	1	8.7(2)	2.5 to 5.5	–40 to +125	Rail-to-Rail Input/Output, 1/2 V_{CC} V_{REF}	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP, 8-pin MSOP, 5-pin SOT-23(S, R)
MCP6022	2	10 MHz	1000	0.5	1	8.7(2)	2.5 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP
MCP6023	1	10 MHz	1000	0.5	1	8.7(2)	2.5 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Chip select, 1/2 V_{CC} V_{REF}	8-pin PDIP, 8-pin SOIC, 8-pin TSSOP
MCP6024	4	10 MHz	1000	0.5	1	8.7(2)	2.5 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6291	1	10 MHz	1000	3	1	8.7(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 5-pin SOT-23(S, R)
MCP6292	2	10 MHz	1000	3	1	8.7(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6293	1	10 MHz	1000	3	1	8.7(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 6-pin SOT-23(S)
MCP6294	4	10 MHz	1000	3	1	8.7(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6295	2	10 MHz	1100	3	1	8.7(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output, Dual connected, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6H91	1	10 MHz	2000	4	10	23(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6H92	2	10 MHz	2000	4	10	23(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6H94	4	10 MHz	2000	4	10	23(1)	Single Supply: 3.5 to 12 Dual Supply: ±1.75 to ±6	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin TSSOP
MCP6L91	1	10 MHz	850	4	1	9.4(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC(S), 8-pin MSOP(S), 5-pin SOT-23(S, R)
MCP6L92	2	10 MHz	850	4	1	9.4(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP
MCP6L94	4	10 MHz	850	4	1	9.4(2)	2.4 to 6.0	–40 to +125	Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP621	1	20 MHz	2500	0.2	5	13(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip select, mCal Technology	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP621S	1	20 MHz	2500	0.2	5	13(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, mCal Technology	5-pin SOT-23(S)
MCP622	2	20 MHz	2500	0.2	5	13(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, mCal Technology	8-pin SOIC, 8-pin 3 × 3 DFN
MCP623	1	20 MHz	2500	0.2	5	13(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip select, mCal Technology	6-pin SOT-23(S)
MCP624	4	20 MHz	2500	0.2	5	13(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, mCal Technology	14-pin SOIC, 14-pin TSSOP
MCP625	2	20 MHz	2500	0.2	5	13(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip selects, mCal Technology	10-pin MSOP, 10-pin 3 × 3 DFN
MCP629	4	20 MHz	2500	0.2	5	13(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output,Chip selects, mCal Technology	16-pin 4 × 4 QFN
MCP631	1	24 MHz	2500	8	4	10(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN, 5-pin SOT-23(S)
MCP632	2	24 MHz	2500	8	4	10(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 3 × 3 DFN
MCP633	1	24 MHz	2500	8	4	10(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip select	8-pin SOIC, 6-pin SOT-23
MCP634	4	24 MHz	2500	8	4	10(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin TSSOP
MCP635	2	24 MHz	2500	8	4	10(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip selects	10-pin MSOP, 10-pin 3 × 3 DFN
MCP639	4	24 MHz	2500	8	4	10(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip selects	16-pin 4 × 4 QFN
MIC919	1	27 MHz	360	5.0	130000	10	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SC-70, 5-pin SOT-23
MIC921	1	45 MHz	360	5.0	130000	12	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SC-70, 5-pin SOT-23
MCP651	1	50 MHz	6000	0.2	6	7.5(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip select, mCal Technology	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP651S	1	50 MHz	6000	0.2	6	7.5(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, mCal Technology	5-pin SOT-23(S)
MCP652	2	50 MHz	6000	0.2	6	7.5(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, mCal Technology	8-pin SOIC, 8-pin 3 × 3 DFN
MCP653	1	50 MHz	6000	0.2	6	7.5(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip select, mCal Technology	6-pin SOT-23(S)
MCP654	4	50 MHz	6000	0.2	6	7.5(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, mCal Technology	14-pin SOIC, 14-pin TSSOP
MCP655	2	50 MHz	6000	0.2	6	7.5(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip selects, mCal Technology	10-pin MSOP, 10-pin 3 × 3 DFN

Legend: S = Standard Pinout; R = Reverse Pinout; U = Alternative Pinout

Note 1: Values are typical at 1 kHz

2: Values are typical at 10 kHz

3: Values are typical at 1 MHz

LINEAR: Op Amps (Continued)

Part #	# per Package	GBWP	Iq Typical (µA)	Vos Max (mV)	Typical Input Bias Current (pA)	Input Voltage Noise Density (nV/rtHz)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP659	4	50 MHz	6000	0.2	6	7.5(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output,Chip selects, mCal Technology	16-pin 4 × 4 QFN
MIC918	1	51 MHz	550	5.0	230000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SC-70, 5-pin SOT-23
MCP660	3	60 MHz	6000	8	6	6.8(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin TSSOP
MCP661	1	60 MHz	6000	8	6	6.8(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 2 × 3 TDFN, 5-pin SOT-23(S)
MCP662	2	60 MHz	6000	8	6	6.8(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	8-pin SOIC, 8-pin 3 × 3 DFN
MCP663	1	60 MHz	6000	8	6	6.8(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip select	8-pin SOIC, 6-pin SOT-23
MCP664	4	60 MHz	6000	8	6	6.8(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output	14-pin SOIC, 14-pin TSSOP
MCP665	2	60 MHz	6000	8	6	6.8(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip selects	10-pin MSOP, 10-pin 3 × 3 DFN
MCP669	4	60 MHz	6000	8	6	6.8(3)	2.5 to 5.5	–40 to +125	Rail-to-Rail Output, Chip selects	16-pin 4 × 4 QFN
MCP920	1	80 MHz	550	5	260000	10	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SC-70, 5-pin SOT-23
MIC911	1	105 MHz	1350	10	1500000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SOT-23
MIC910	1	135 MHz	2400	15	3500000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SOT-23
MIC915	2	135 MHz	2500	15	3500000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	10-pin MSOP
MIC916	3	135 MHz	2500	15	3500000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	16-pin QSOP
MIC914	1	160 MHz	4100	10	1500000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SOT-23
MIC912	1	200 MHz	2500	15	3500000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SOT-23
MIC922	1	230 MHz	2500	5.0	1700000	9	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SC-70
MIC913	1	350 MHz	4200	16	5500000	–	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SOT-23
MIC923	1	410 MHz	2500	5.0	1700000	9	5.0 to 18	–40 to +85	High Output Drive, High Slew Rate	5-pin SC-70

Legend: S = Standard Pinout; R = Reverse Pinout; U = Alternative Pinout
Note 1: Values are typical at 1 kHz
2: Values are typical at 10 kHz
3: Values are typical at 1 MHz

LINEAR: Zero-Drift Operational Amplifiers

Part #	# per Package	GBWP	Iq Max (mA)	Vos Max (µV)	Vos Drift Max (µV/°C)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6V11	1	80 kHz	0.011	8	0.05	1.6 to 5.5	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S, U), 5-pin SC-70(U)
MCP6V12	2	80 kHz	0.011	8	0.05	1.6 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin 2 × 3 TDFN, 8-pin MSOP
MCP6V14	4	80 kHz	0.011	8	0.05	1.6 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin TSSOP
MCP6V31	1	300 kHz	0.034	8	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	5-pin SOT-23(S, U), 5-pin SC-70(U)
MCP6V32	2	300 kHz	0.034	8	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin 2 × 3 TDFN, 8-pin MSOP
MCP6V34	4	300 kHz	0.034	8	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	14-pin TSSOP
TC7652	1	0.4 MHz	3	5	0.05	5 to 16	0 to +70	Single and Split Supply, Low Noise	8-pin PDIP, 14-pin PDIP
MCP6V61	1	1 MHz	0.13	8	0.015	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	5-pin SOT-23(S, U), 5-pin SC-70(U)
MCP6V62	2	1 MHz	0.13	8	0.015	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	8-pin 2 × 3 TDFN, 8-pin MSOP
MCP6V64	4	1 MHz	0.13	8	0.015	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	14-pin TSSOP
MCP6V01	1	1.3 MHz	0.4	2	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6V02	2	1.3 MHz	0.4	2	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 4 × 4 DFN
MCP6V03	1	1.3 MHz	0.4	2	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6V06	1	1.3 MHz	0.4	3	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6V07	2	1.3 MHz	0.4	3	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin 4 × 4 DFN
MCP6V08	1	1.3 MHz	0.4	3	0.05	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin SOIC, 8-pin 2 × 3 TDFN
TC913A/B	2	1.5 MHz	1.1	15	0.15/0.30	7 to 16	0 to +70	Single and Split Supply	8-pin PDIP, 8-pin SOIC
TC7650	1	2 MHz	3.5	5	0.05	4.5 to 16	0 to +70	Single and Split Supply	8-pin PDIP, 14-pin PDIP
MCP6V26	1	2 MHz	0.8	2	0.05	2.3 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN
MCP6V27	2	2 MHz	0.8	2	0.05	2.3 to 5.5	–40 to +125	Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP, 8-pin 4 × 4 DFN
MCP6V28	1	2 MHz	0.8	2	0.05	2.3 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Chip select	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 TDFN
MCP6V71	1	2 MHz	0.26	8	0.015	2.0 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	5-pin SOT-23(S, U), 5-pin SC-70(U)

LINEAR: Zero-Drift Operational Amplifiers (Continued)

Part #	# per Package	GBWP	I_Q Max (mA)	V_{OS} Max (µV)	V_{OS} Drift Max (µV/°C)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6V72	2	2 MHz	0.26	8	0.015	2.0 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	8-pin 2 × 3 TDFN, 8-pin MSOP
MCP6V74	4	2 MHz	0.26	8	0.015	2.0 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	14-pin TSSOP
MCP6V81	1	5 MHz	0.77	9	0.02	2.2 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	5-pin SOT-23(S, U), 5-pin SC-70(U)
MCP6V82	2	5 MHz	0.77	9	0.059	2.2 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	8-pin 2 × 3 TDFN, 8-pin MSOP
MCP6V84	4	5 MHz	0.77	9	0.059	2.2 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	14-pin TSSOP
MCP6V91	1	10 MHz	1.6	9	0.017	2.4 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	5-pin SOT-23(S, U), 5-pin SC-70(U)
MCP6V92	2	10 MHz	1.6	9	0.04	2.4 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	8-pin 2 × 3 TDFN, 8-pin MSOP
MCP6V94	4	10 MHz	1.6	9	0.04	2.4 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enhanced EMI Rejection	14-pin TSSOP

LINEAR: Programmable Gain Amplifiers (PGA)

Part #	Channels	–3dB BW (MHz)	I_Q Typ. (mA)	V_{OS} (µV)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6S21	1	2 to 12	1.1	275	2.5 to 5.5	–40 to +85	SPI, Eight Gain steps, Software shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6S22	2	2 to 12	1.1	275	2.5 to 5.5	–40 to +85	SPI, Eight Gain steps, Software shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6S26	6	2 to 12	1.1	275	2.5 to 5.5	–40 to +85	SPI, Eight Gain steps, Software shutdown	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6S28	8	2 to 12	1.1	275	2.5 to 5.5	–40 to +85	SPI, Eight Gain steps, Software shutdown	16-pin PDIP, 16-pin SOIC
MCP6S91	1	1 to 18	1.0	4000	2.5 to 5.5	–40 to +125	SPI, Eight Gain steps, Software shutdown, V_{REF}	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6S92	2	1 to 18	1.0	4000	2.5 to 5.5	–40 to +125	SPI, Eight Gain steps, Software shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6S93	2	1 to 18	1.0	4000	2.5 to 5.5	–40 to +125	SPI, Eight Gain steps, Software shutdown, V_{REF}, SO	10-pin MSOP

LINEAR: Selectable Gain Amplifiers (SGA)

Part #	Channels	–3dB BW (kHz)	I_Q (µA)	V_{OS} (mV)	Operating Voltage (V)	Temperature Range (°C)	Gain Steps (V/V)	Features	Packages
MCP6G01	1	900	110	4.5	1.8 to 5.5	–40 to +125	1, 10, 50	Tri-State control pin	8-pin SOIC, 8-pin MSOP, 5-pin SOT-23(S, R, U)
MCP6G02	2	900	110	4.5	1.8 to 5.5	–40 to +125	1, 10, 50	Tri-State control pin	8-pin SOIC, 8-pin MSOP
MCP6G03	1	900	110	4.5	1.8 to 5.5	–40 to +125	1, 10, 50	Tri-State control pin, chip select	8-pin SOIC, 8-pin MSOP
MCP6G04	4	900	110	4.5	1.8 to 5.5	–40 to +125	1, 10, 50	Tri-State control pin	14-pin SOIC, 14-pin TSSOP

LINEAR: Instrumentation Amplifiers

Part #	# Per Package	Bandwidth (kHz)	I_Q Max (mA)	Max V_{OS} (µV)	V_{OS} Drift Max (µV/°C)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6N11	1	500	1.1	350	2.7	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, mCal Technology	8-pin SOIC, 8-pin 2 × 3 TDFN
MCP6N16	1	500	1.6	17	0.06	1.8 to 5.5	–40 to +125	Rail-to-Rail Input/Output, Enable Pin, Enhanced EMI Rejection	8-pin MSOP, 8-pin 3 × 3 DFN

Legend: S = Standard Pinout; R = Reverse Pinout; U = Alternative Pinout

LINEAR: Comparators									
Part #	# Per Package	V_{REF} (V)	Typical Propagation Delay (µs)	I_Q Typical (µA)	V_{OS} Max (mV)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6541	1	–	4	1	5	1.6 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output	5-pin SOT-23(S, R, U), 5-pin SC-70(S, U), 8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6542	2	–	4	1	5	1.6 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6543	1	–	4	1	5	1.6 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6544	4	–	4	1	5	1.6 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP6546	1	–	4	1	5	1.6 to 5.5	–40 to +125	Open-drain, 9V, Rail-to-Rail Input/Output	5-pin SOT-23(S, R, U), 5-pin SC-70(S, U), 8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6547	2	–	4	1	5	1.6 to 5.5	–40 to +125	Open-drain, 9V, Rail-to-Rail Input/Output	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6548	1	–	4	1	5	1.6 to 5.5	–40 to +125	Open-drain, 9V, Rail-to-Rail Input/Output, Chip select	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP6549	4	–	4	1	5	1.6 to 5.5	–40 to +125	Open-drain, 9V, Rail-to-Rail Input/Output	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP65R41	1	1.21/2.4	4	2.5	10	1.8 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output, V_{REF}	6-pin SOT-23
MCP65R46	1	1.21/2.4	4	2.5	10	1.8 to 5.5	–40 to +125	Open Drain, Rail-to-Rail Input/Output, V_{REF}	6-pin SOT-23
MCP6561	1	–	0.047	100	10	1.8 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output	5-pin SOT-23(S, R, U), 5-pin SC-70(S)
MCP6562	2	–	0.047	100	10	1.8 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP
MCP6564	4	–	0.047	100	10	1.8 to 5.5	–40 to +125	Push-Pull, Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MCP6566	1	–	0.047	100	10	1.8 to 5.5	-40 to +125	Open-Drain, Rail-to-Rail Input/Output	5-pin SOT-23(S, R, U), 5-pin SC-70(S)
MCP6567	2	–	0.047	100	10	1.8 to 5.5	-40 to +125	Open-Drain, Rail-to-Rail Input/Output	8-pin SOIC, 8-pin MSOP
MCP6569	4	–	0.047	100	10	1.8 to 5.5	-40 to +125	Open-Drain, Rail-to-Rail Input/Output	14-pin SOIC, 14-pin TSSOP
MIC6270	1	–	0.6	300	5	2.0 to 36	-40 to +85	Open Collector Output, High-Voltage	5-pin SOT-23
MIC7211	1	–	4	5	10	2.2 to 5.0	-40 to +85	Rail-to-Rail Input, Push-Pull Output	5-pin SOT-23
MIC7221	1	–	4	5	10	2.2 to 5.0	-40 to +85	Rail-to-Rail Input, Open-Drain Output	5-pin SOT-23
MIC833	1	1.25	5	1	–	1.5 to 5.5	-40 to +85	Windowed Comparator with Adjustable Hystersis	5-pin SOT-23
MIC834	1	1.25	5	1.5	–	1.5 to 5.5	-40 to +85	Windowed Comparator with Hystersis	5-pin SOT-23
MIC841	1	1.25	12	1.5	–	1.5 to 5.5	-40 to +85	Windowed Comparator with Adjustable Hystersis, Push-Pull and Open-Drain Output Options	5-pin SC-70, 6-pin 1.6 × 1.6 TDFN
MIC842	1	1.25	12	1.5	–	1.5 to 5.5	-40 to +85	Windowed Comparator with Hystersis, Push-Pull and Open-Drain Output Options	5-pin SC-70, 4-pin 1.2 × 1.6 TDFN
MIC845	1	2.55	12	1	–	2.75 to 5.5	-40 to +85	Push-Pull and Open-Drain Output Options	5-pin SC-70

Legend: S = Standard Pinout; R = Reverse Pinout; U = Alternative Pinout

MIXED SIGNAL

MIXED SIGNAL: Successive Approximation Register (SAR) A/D Converters										
Part #	Resolution (bits)	Maximum Sampling Rate (ksamples/sec)	# of Input Channels	Input Type	Interface	Input Voltage Range (V)	Max. Supply Current (µA)	Max. INL	Temperature Range (°C)	Packages
MCP3021	10	22	1	Single-ended	I^2C	2.7 to 5.5	250	±1 LSB	–40 to +125	5-pin SOT-23A
MCP3001	10	200	1	Single-ended	SPI	2.7 to 5.5	500	±1 LSB	–40 to +85	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin TSSOP
MCP3002	10	200	2	Single-ended	SPI	2.7 to 5.5	650	±1 LSB	–40 to +85	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin TSSOP
MCP3004	10	200	4	Single-ended	SPI	2.7 to 5.5	550	±1 LSB	–40 to +85	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP3008	10	200	8	Single-ended	SPI	2.7 to 5.5	550	±1 LSB	–40 to +85	16-pin PDIP, 16-pin SOIC
MCP3221	12	22	1	Single-ended	I^2C	2.7 to 5.5	250	±2 LSB	–40 to +125	5-pin SOT-23A
MCP3201	12	100	1	Single-ended	SPI	2.7 to 5.5	400	±1 LSB	–40 to +85	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin TSSOP
MCP3202	12	100	2	Single-ended	SPI	2.7 to 5.5	550	±1 LSB	–40 to +85	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin TSSOP
MCP3204	12	100	4	Single-ended	SPI	2.7 to 5.5	400	±1 LSB	–40 to +85	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP3208	12	100	8	Single-ended	SPI	2.7 to 5.5	400	±1 LSB	–40 to +85	16-pin PDIP, 16-pin SOIC
MCP3301	13	100	1	Differential	SPI	2.7 to 5.5	450	±1 LSB	–40 to +85	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin TSSOP
MCP3302	13	100	2	Differential	SPI	2.7 to 5.5	450	±1 LSB	–40 to +85	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP3304	13	100	4	Differential	SPI	2.7 to 5.5	450	±1 LSB	–40 to +85	16-pin PDIP, 16-pin SOIC

MIXED SIGNAL: Delta-Sigma A/D Converters

Part #	Resolution (bits)	Maximum Sampling Rate (samples/sec)	# of Input Channels	Interface	Supply Voltage Range (V)	Typical Supply Current (µA)	Typical INL (ppm)	Temperature Range (°C)	Features	Packages
MCP3421	18 to 12	4 to 240	1 Diff	I²C	2.7 to 5.5	155	10	–40 to +125	PGA, VREF	6-pin SOT-23A
MCP3422	18 to 12	4 to 240	2 Diff	I²C	2.7 to 5.5	145	10	–40 to +125	PGA, VREF	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP3423	18 to 12	4 to 240	2 Diff	I²C	2.7 to 5.5	145	10	–40 to +125	PGA, VREF, Selectable I²C addressing	10-pin MSOP, 10-pin 3 × 3 DFN
MCP3424	18 to 12	4 to 240	4 Diff	I²C	2.7 to 5.5	145	10	–40 to +125	PGA, VREF, Selectable I²C addressing	14-pin SOIC, 14-pin TSSOP
MCP3425	16 to 12	15 to 240	1 Diff	I²C	2.7 to 5.5	155	10	–40 to +125	PGA, VREF	6-pin SOT-23A
MCP3426	16 to 12	15 to 240	2 Diff	I²C	2.7 to 5.5	145	10	–40 to +125	PGA, VREF	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP3427	16 to 12	15 to 240	2 Diff	I²C	2.7 to 5.5	145	10	–40 to +125	PGA, VREF, Selectable I²C addressing	10-pin MSOP, 10-pin 3 × 3 DFN
MCP3428	16 to 12	15 to 240	4 Diff	I²C	2.7 to 5.5	145	10	–40 to +125	PGA, VREF, Selectable I²C addressing	14-pin SOIC, 14-pin TSSOP
MCP3550-50	22	13	1 Diff	SPI	2.7 to 5.5	120	2	–40 to +125	50 Hz rejection	8-pin SOIC, 8-pin MSOP
MCP3550-60	22	15	1 Diff	SPI	2.7 to 5.5	140	2	–40 to +125	60 Hz rejection	8-pin SOIC, 8-pin MSOP
MCP3551	22	14	1 Diff	SPI	2.7 to 5.5	120	2	–40 to +125	Simultaneous 50/60 Hz rejection	8-pin SOIC, 8-pin MSOP
MCP3553	20	60	1 Diff	SPI	2.7 to 5.5	140	2	–40 to +125		8-pin SOIC, 8-pin MSOP

MIXED SIGNAL: Pipelined A/D Converters

Part #	Resolution	Max Sample Rate (Msamples/sec)	# of Input Channels	Input Type	Interface	Supply Voltage (V)	Power Dissipation (mW)	Input Channel BW (MHz)	SNR (dB)	SFDR (dB)	Input Range (Vp-p)	Features	Temperature Range (°C)	Packages
MCP37D31-200	16	200	1, 2, 4, 8	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	490	500	74.7	90	2.98	Decimation filters, digital down-converter	–40 to +85	124-pin VTLA
MCP37231-200	16	200	1, 2, 4, 8	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	490	500	74.7	90	2.98	Decimation filters	–40 to +85	124-pin VTLA
MCP37D20-200	14	200	1	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	348	650	67.8	96	1.8	Decimation filters, digital down-converter	–40 to +85	124-pin VTLA
MCP37220-200	14	200	1	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	348	650	67.8	96	1.8	Decimation filters	–40 to +85	124-pin VTLA
MCP37D21-200	14	200	1, 2, 4, 8	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	490	500	74.2	90	2.98	Decimation filters, digital down-converter	–40 to +85	124-pin VTLA
MCP37221-200	14	200	1, 2, 4, 8	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	490	500	74.2	90	2.98	Decimation filters	–40 to +85	124-pin VTLA
MCP37D10-200	12	200	1	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	338	650	67	96	1.8	Decimation filters, digital down-converter, noise-shaping requantizer	–40 to +85	124-pin VTLA
MCP37210-200	12	200	1	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	338	650	67	96	1.8	Decimation filters, noise-shaping requantizer	–40 to +85	124-pin VTLA
MCP37D11-200	12	200	1, 2, 4, 8	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	468	500	71.3	90	2.98	Decimation filters, digital down-converter	–40 to +85	124-pin VTLA
MCP37211-200	12	200	1, 2, 4, 8	Differential	Serial DDR LVDS or Parallel CMOS	1.2, 1.8	468	500	71.3	90	2.98	Decimation filters, noise shaping requantizer	–40 to +85	124-pin VTLA

MIXED SIGNAL: Energy Metering and Power Monitoring ICs

Part #	Dynamic Range	Typical Accuracy	Input Channels	ADC Resolution	Gain Selection	Event Monitoring	Zero-Cross Detection Pin	Output Type	VDD (V)	Temperature Range (°C)	Features	Packages
MCP39F511	4000:1	0.1%	I, V, Temp.	24-bit	Up to 32	5	Yes	UART/Single-wire	2.7 to 3.6	–40 to +125	Power monitoring IC with active, reactive and apparent power, active and reactive energy, PF, RMS current/voltage, frequency, event notifications, EEPROM, PWM output	QFN
MCP39F521	4000:1	0.1%	I, V, Temp.	24-bit	Up to 32	4	Yes	I2C	2.7 to 3.6	–40 to +125	Power monitoring IC with active, reactive and apparent power, active and reactive energy, PF, RMS current/voltage, frequency, event notifications, EEPROM	QFN
MCP39F511N	4000:1	0.5%	I1, I2, V	24-bit	Up to 32	6	Yes	UART	2.7 to 3.6	–40 to +125	Dual-channel power monitoring IC with active, reactive and apparent power, active and reactive energy, PF, RMS current/voltage, frequency, event notifications, EEPROM, PWM output	QFN
MCP3905A/06A	500:1/ 1000:1	0.10%	I, V	16-bit	Up to 32	–	–	Active Power Pulse	4.5 to 5.5	–40 to +125	Active power calculation	SSOP

MIXED SIGNAL: Energy Measurement AFEs

Part #	Dynamic Range	Typical Accuracy	ADC Channels	ADC Resolution	SINAD	Gain Selection	Output Type	V_{DD} (V)	Temperature Range (°C)	Features	Packages
MCP3918/10	10000:1	0.1%	1/2	24-bit	93.5	Up to 32	SPI/2-wire	2.7 to 3.6	–40 to +125	AFE with phase correction, Programmable data rate, 16-bit CRC, Register map lock, 2-wire interface	SSOP, QFN
MCP3919	10000:1	0.1%	3	24-bit	93.5	Up to 32	SPI/2-wire	2.7 to 3.6	–40 to +125	AFE with phase correction, Programmable data rate, 16-bit CRC, Register map lock, 2-wire interface	SSOP, QFN
MCP3912	10000:1	0.1%	4	24-bit	93.5	Up to 32	SPI	2.7 to 3.6	–40 to +125	AFE with phase correction, Programmable data rate, 16-bit CRC, Register map lock	SSOP, QFN
MCP3913/14	10000:1	0.1%	6/8	24-bit	94.5	Up to 32	SPI	2.7 to 3.6	–40 to +125	AFE with phase correction, Programmable data rate, 16-bit CRC, Register map lock	SSOP, UQFN

MIXED SIGNAL: Current/DC Power Measurement ICs

Part #	# of Current Sensors	Description	Full Scale Range (mV)	Current Measurement Max Accr (%)	Effective Sampling Interval Min to Max (msec)	Bus Voltage Range (V)	# of Temp. Monitors (Ambient, Remote)	Temp. Accuracy Typ/Max (°C)	Alert/ THERM	Peak Detection	Address Select	Package
PAC1710	1	SMBus/I²C Current/DC Power Sensor	10, 20, 40, 80	±1	2.5 to 2,600	0 to + 40	–	–	1	–	Yes	10-pin DFN
PAC1720	2	Dual SMBus/I²C Current/DC Power Sensor	10, 20, 40, 80	±1	2.5 to 2,600	0 to + 40	–	–	1	–	Yes	10-pin DFN
PAC1921	2	SMBus/I²C Current/Power Sensor with Analog Output	100	±1	2.5 to 2,900	0 to + 32	–	–	–	–	Yes	10-pin DFN
EMC1701-1	1	SMBus/I²C Current/DC Power Sensor with Temperature Monitoring	10, 20, 40, 80	±1	2.5 to 2,600	+3 to +24	1, 0	±0.25/±1	2	Hardware	Yes	12-pin 4 × 4 QFN
EMC1701-2	1	SMBus/I²C Current/DC Power Sensor with Temperature Monitoring	10, 20, 40, 80	±1	2.5 to 2,600	+3 to +24	1, 0	±0.25/±1	2	Software	Yes	10-pin MSOP
EMC1702-1	1	SMBus/I²C Current/DC Power Sensor with Two Temperature Monitors	10, 20, 40, 80	±1	2.5 to 2,600	+3 to +24	1, 1	±0.25/±1	2	Hardware	Yes	12-pin 4 × 4 QFN
EMC1704-1	1	SMBus/I²C Current/DC Power Sensor with Four Temperature Monitors	10, 20, 40, 80	±1	2.5 to 2,600	+3 to +24	1, 3	±0.25/±1	2	Software	Yes	14-pin SOIC
EMC1704-2	1	SMBus/I²C Current/DC Power Sensor with Four Temperature Monitors	10, 20, 40, 80	±1	2.5 to 2,600	+3 to +24	1, 3	±0.25/±1	2	Hardware	Yes	16-pin 4 × 4 QFN

MIXED SIGNAL: Dual-Slope A/D Converters

Part #	Supply Voltage (V)	Input Voltage Range	Resolution	Sampling Rate (Conv/s)	Input Channels	Data Interface	Temperature Range (°C)	Features	Packages
TC500	±4.5 to ±7.5	V_{SS} + 1.5V to V_{DD} – 1.5V	Up to 16 bits	4 to 10	1	3-Wire	0 to +70	Differential input range, Programmable resolution/ conversion time	16-pin PDIP, 16-pin SOIC
TC500A	±4.5 to ±7.5	V_{SS} + 1.5V to V_{DD} – 1.5V	Up to 17 bits	4 to 10	1	3-Wire	0 to +70	Differential input range, Programmable resolution/ conversion time	16-pin PDIP, 16-pin SOIC
TC510	+4.5 to +5.5	V_{SS} + 1.5V to V_{DD} – 1.5V	Up to 17 bits	4 to 10	1	3-Wire	0 to +70	Differential input range, Programmable resolution/ conversion time, Charge pump (–V) output pin	24-pin PDIP, 24-pin SOIC
TC514	+4.5 to +5.5	V_{SS} + 1.5V to V_{DD} – 1.5V	Up to 17 bits	4 to 10	4	3-Wire	0 to +70	Differential input range, Programmable resolution/ conversion time, Charge pump (–V) output pin	28-pin PDIP, 28-pin SOIC
TC520A	+4.5 to +5.5	–	–	–	–	Serial port	0 to +70	Optional serial interface adapter for TC500/500A/510/514	14-pin PDIP, 16-pin SOIC
TC7109	±4.5 to ±5.5	V_{SS} + 1.5V to V_{DD} – 1.0V	12 bits plus sign bit	2 to 10	1	Parallel or Serial port	–25 to +85	Differential input range	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7109A	±4.5 to ±5.5	V_{SS} + 1.5V to V_{DD} – 1.0V	12 bits plus sign bit	2 to 10	1	Parallel or Serial port	–25 to +85	Differential input range	40-pin PDIP, 44-pin PLCC, 44-pin MQFP

MIXED SIGNAL: Binary and BCD A/D Converters

Part #	Description	Supply Voltage (V)	Input Voltage Range	Resolution (Digits)	Resolution (Counts)	Max Power (mW)	Data Interface	Temperature Range (°C)	Features	Packages
TC850	Binary A/D	±5	V_{SS} + 1.5V to V_{DD} – 1.5V	15-bit	±32,768	35	8-bit parallel	–25 to +70	Highest conversion speed (40 conv/sec)	44-pin PLCC, 40-pin PDIP
TC14433	BCD A/D	±4.5 to ±8	±199.9 mV to 1.999V	3½	±2,000	20	MUXed BCD	–40 to +85	For DMM, DPM, Data loggers	24-pin SOIC, 24-pin PDIP, 28-pin PLCC
TC14433A	BCD A/D	±4.5 to ±8	±199.9 mV to 1.999V	3½	±2,000	20	MUXed BCD	–40 to +85	For DMM, DPM, Data loggers	24-pin PDIP, 28-pin PLCC

MIXED SIGNAL: Display A/D Converters

Part #	Display Type	Supply Voltage (V)	Resolution (Digits)	Resolution (Counts)	Power (mW)	Temperature Range (°C)	Features	Packages
TC7106	LCD	9	3½	±2,000	10	–25 to +85	For DMM, DPM, Data logger applications	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7106A	LCD	9	3½	±2,000	10	–25 to +85	For DMM, DPM, Data logger applications	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7107	LED	±5	3½	±2,000	10	–25 to +85	For DMM, DPM, Data logger applications	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7107A	LED	±5	3½	±2,000	10	–25 to +85	For DMM, DPM, Data logger applications	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7116	LCD	9	3½	±2,000	10	–25 to +85	Hold function	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7116A	LCD	9	3½	±2,000	10	–25 to +85	Hold function	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7117	LED	±5	3½	±2,000	10	–25 to +85	Hold function	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7117A	LED	±5	3½	±2,000	10	–25 to +85	Hold function	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7126	LCD	9	3½	±2,000	0.5	–25 to +85	Low-power TC7106	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7126A	LCD	9	3½	±2,000	0.5	–25 to +85	Low-power TC7106	40-pin PDIP, 44-pin PLCC, 44-pin MQFP
TC7129	LCD	9	4½	±20,000	4.5	0 to +70	Lowest noise ±3 mV sensitivity	40-pin PDIP, 44-pin PLCC, 44-pin MQFP

MIXED SIGNAL: Digital Potentiometers

Part #	# of Taps	Memory	# Per Package	Interface	Resistance (kOhms)	INL (Max)	DNL (Max)	Temperature Range (°C)	Comments	Packages
MCP4011	64	Volatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Potentiometer mode	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP4012	64	Volatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Rheostat mode	6-pin SOT-23
MCP4013	64	Volatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Potentiometer to Vss	6-pin SOT-23
MCP4014	64	Volatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Rheostat to Vss	5-pin SOT-23
MCP4017	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	7-bit, Volatile, I²C digital potentiometer	6-pin SC-70
MCP4018	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	7-bit, Volatile, I²C digital potentiometer	6-pin SC-70
MCP4019	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	7-bit, Volatile, I²C digital potentiometer	5-pin SC-70
MCP40D17	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	7-bit, Volatile, I²C digital potentiometer	6-pin SC-70
MCP40D18	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	7-bit, Volatile, I²C digital potentiometer	6-pin SC-70
MCP40D19	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	7-bit, Volatile, I²C digital potentiometer	5-pin SC-70
MCP4021	64	Nonvolatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Potentiometer mode, Shutdown, WiperLock™ Technology	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP4022	64	Nonvolatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Rheostat mode, Shutdown, WiperLock Technology	6-pin SOT-23
MCP4023	64	Nonvolatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Potentiometer to Vss, WiperLock Technology	6-pin SOT-23
MCP4024	64	Nonvolatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	–40 to +125	Rheostat to Vss, Shutdown, WiperLock Technology	5-pin SOT-23
MCP4141	128	Nonvolatile	1	SPI	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP4142	128	Nonvolatile	1	SPI	5, 10, 50, 100	0.8	0.25	–40 to +125	Rheostat mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP4241	128	Nonvolatile	2	SPI	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode, Shutdown, WiperLock Technology	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4242	128	Nonvolatile	2	SPI	5, 10, 50, 100	0.8	0.25	–40 to +125	Rheostat mode, Shutdown	10-pin MSOP, 10-pin 3 × 3 DFN
MCP4131	129	Volatile	1	SPI	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP41HV31	128	Volatile	1	SPI	5, 10, 50, 100	0.5	0.125	–40 to +125	7-bit Volatile digital potentiometer with specified operation from 10V to 36V and SPI interface	14-pin TSSOP, 5 × 5 QFN
MCP4132	129	Volatile	1	SPI	5, 10, 50, 100	0.8	0.25	–40 to +125	Rheostat mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP4231	128	Volatile	2	SPI	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode, Shutdown, WiperLock Technology	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4232	128	Volatile	2	SPI	5, 10, 50, 100	0.8	0.25	–40 to +125	Rheostat mode, Shutdown	10-pin MSOP, 10-pin 3 × 3 DFN
MCP41010	256	Volatile	1	SPI	10	1	1	–40 to +85	Potentiometer mode, Shutdown	8-pin PDIP, 8-pin SOIC
MCP41050	256	Volatile	1	SPI	50	1	1	–40 to +85	Potentiometer mode, Shutdown	8-pin PDIP, 8-pin SOIC
MCP41100	256	Volatile	1	SPI	100	1	1	–40 to +85	Potentiometer mode, Shutdown	8-pin PDIP, 8-pin SOIC
MCP4151	256	Volatile	1	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Potentiometer mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP41HV51	256	Volatile	1	SPI	5, 10, 50, 100	1	0.25	–40 to +125	8-bit Volatile digital potentiomer with specified operation from 10V to 36V and SPI interface.	14-pin TSSOP, 5 × 5 QFN
MCP4152	256	Volatile	1	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP4161	256	Nonvolatile	1	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Potentiometer mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP4162	256	Nonvolatile	1	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode, Shutdown	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin 3 × 3 DFN
MCP42010	256	Volatile	2	SPI	10	1	1	–40 to +85	Potentiometer mode, Shutdown	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP42100	256	Volatile	2	SPI	100	1	1	–40 to +85	Potentiometer mode, Shutdown	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP4251	256	Volatile	2	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Potentiometer mode, Shutdown, WiperLock Technology	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4252	256	Volatile	2	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode, Shutdown	10-pin MSOP, 10-pin 3 × 3 DFN

MIXED SIGNAL: Digital Potentiometers (Continued)

Part #	# of Taps	Memory	# Per Package	Interface	Resistance (kOhms)	INL (Max)	DNL (Max)	Temperature Range (°C)	Comments	Packages
MCP4261	256	Nonvolatile	2	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Potentiometer mode, Shutdown, WiperLock™ Technology	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4262	256	Nonvolatile	2	SPI	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode, Shutdown	10-pin MSOP, 10-pin 3 × 3 DFN
MCP4341	129	Nonvolatile	4	SPI	5, 10, 50, 100	0.8	0.375	–40 to +125	7-bit, Volatile potentiometer with an SPI interface	20-pin TSSOP, 20-pin 4 × 4 QFN
MCP4342	129	Nonvolatile	4	SPI	5, 10, 50, 100	0.8	0.375	–40 to +125	7-bit, Volatile rheostat with an SPI interface	14-pin TSSOP
MCP4361	257	Nonvolatile	4	SPI	5, 10, 50, 100	1	0.5	–40 to +125	8-bit, Non-volatile potentiometer with an SPI interface	20-pin TSSOP, 20-pin 4 × 4 QFN
MCP4362	257	Nonvolatile	4	SPI	5, 10, 50, 100	1	0.5	–40 to +125	8-bit, Non-volatile rheostat with an SPI interface	14-pin TSSOP
MCP4331	129	Volatile	4	SPI	5, 10, 50, 100	0.8	0.375	–40 to +125	7-bit, Volatile potentiometer with an SPI interface	20-pin TSSOP, 20-pin 4 × 4 QFN
MCP4332	129	Volatile	4	SPI	5, 10, 50, 100	0.8	0.375	–40 to +125	7-bit, Volatile rheostat with an SPI interface	14-pin TSSOP
MCP4351	257	Volatile	4	SPI	5, 10, 50, 100	1	0.5	–40 to +125	8-bit, Non-volatile potentiometer with an SPI interface	20-pin TSSOP, 20-pin 4 × 4 QFN
MCP4352	257	Volatile	4	SPI	5, 10, 50, 100	1	0.5	–40 to +125	8-bit, Non-volatile rheostat with an SPI interface	14-pin TSSOP
MCP4441	129	Nonvolatile	4	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode, WiperLock Technology	20-pin TSSOP, 20-pin 4 × 4 QFN
MCP4442	129	Nonvolatile	4	I²C	5, 10, 50, 101	0.8	0.375	–40 to +125	Rheostat mode, WiperLock Technology	14-pin TSSOP
MCP4461	257	Nonvolatile	4	I²C	5, 10, 50, 102	1	0.5	–40 to +125	Potentiometer mode, WiperLock Technology	20-pin TSSOP, 20-pin 4 × 4 QFN
MCP4462	257	Nonvolatile	4	I²C	5, 10, 50, 103	1	0.5	–40 to +125	Rheostat mode, WiperLock Technology	14-pin TSSOP
MCP4531	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode	8-pin MSOP
MCP45HV31	128	Volatile	1	I²C	5, 10, 50, 100	0.5	0.125	–40 to +125	7-bit Volatile digital potentiometer with specified operation from 10V to 36V and I²C interface	14-pin TSSOP, 5 × 5 DFN
MCP45HV51	256	Volatile	1	I²C	5, 10, 50, 100	1	0.25	–40 to +125	8-bit Volatile digital potentiometer with specified operation from 10V to 36V and I²C interface	14-pin TSSOP, 5 × 5 DFN
MCP4631	128	Volatile	2	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode	14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4541	128	Nonvolatile	1	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode, WiperLock™ Technology	8-pin MSOP
MCP4641	128	Nonvolatile	2	I²C	5, 10, 50, 100	0.5	0.25	–40 to +125	Potentiometer mode, WiperLock Technology	14-pin TSSOP, 16-pin 4x4 QFN
MCP4651	256	Volatile	2	I²C	5, 10, 50, 100	1	0.5	–40 to +125	Potentiometer mode	14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4561	256	Nonvolatile	1	I²C	5, 10, 50, 100	1	0.5	–40 to +125	Potentiometer mode, WiperLock Technology	8-pin MSOP
MCP4661	256	Nonvolatile	2	I²C	5, 10, 50, 100	1	0.5	–40 to +125	Potentiometer mode, WiperLock Technology	14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4532	128	Nonvolatile	1	I²C	5, 10, 50, 100	0.8	0.375	–40 to +125	Rheostat mode	8-pin MSOP, 8-pin 3 × 3 DFN
MCP4632	128	Volatile	2	I²C	5, 10, 50, 100	0.8	0.375	–40 to +125	Rheostat mode	10-pin MSOP, 10-pin 3 × 3 DFN
MCP4542	128	Nonvolatile	1	I²C	5, 10, 50, 100	0.8	0.375	–40 to +125	Rheostat mode, WiperLock Technology	8-pin MSOP, 8-pin 3 × 3 DFN
MCP4552	256	Volatile	1	I²C	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode	8-pin MSOP, 8-pin 3 × 3 DFN
MCP4652	256	Nonvolatile	2	I²C	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode	10-pin MSOP, 10-pin 3 × 3 DFN
MCP4562	256	Nonvolatile	1	I²C	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode, WiperLock Technology	8-pin MSOP, 8-pin 3 × 3 DFN
MCP4662	256	Nonvolatile	2	I²C	5, 10, 50, 100	1	0.5	–40 to +125	Rheostat mode, WiperLock Technology	10-pin MSOP, 10-pin 3 × 3 DFN

MIXED SIGNAL: Frequency-to-Voltage/Voltage-to-Frequency Converters

Part #	Frequency Range (kHz)	Full Scale (ppm FS/°C)	Non-linearity (%FS)	Temperature Range (°C)	Packages
TC9400	100	±40	±0.05	–40 to +85	14-pin PDIP, 14-pin SOIC
TC9401	100	±40	±0.02	–40 to +85	14-pin PDIP, 14-pin SOIC
TC9402	100	±100	±0.25	–40 to +85	14-pin PDIP, 14-pin SOIC

MIXED SIGNAL: D/A Converters

Part #	Resolution (Bits)	DAC Channels	Interface	Memory	Voltage Reference	Output Setting Time (µs)	DNL (LSB)	INL (LSB)	Max Operating Current (µA)	Temperature Range (°C)	Packages
MCP48FEB01	8	1	SPI	EEPROM	V_{DD}, V_{REF}, V_{BG}	7.8	0.25	0.5	180	–40 to +125	8-pin MSOP
MCP48FEB11	10	1	SPI	EEPROM	V_{DD}, V_{REF}, V_{BG}	7.8	0.5	1.5	180	–40 to +125	8-pin MSOP
MCP48FEB21	12	1	SPI	EEPROM	V_{DD}, V_{REF}, V_{BG}	7.8	1	6	180	–40 to +125	8-pin MSOP
MCP48FEB02	8	2	SPI	EEPROM	V_{DD}, V_{REF}, V_{BG}	7.8	0.25	0.5	380	–40 to +125	8-pin MSOP
MCP48FEB12	10	2	SPI	EEPROM	V_{DD}, V_{REF}, V_{BG}	7.8	0.5	1.5	380	–40 to +125	8-pin MSOP
MCP48FEB22	12	2	SPI	EEPROM	V_{DD}, V_{REF}, V_{BG}	7.8	1	6	380	–40 to +125	8-pin MSOP
MCP48FVB01	8	1	SPI	Volatile	V_{DD}, V_{REF}, V_{BG}	7.8	0.25	0.5	180	–40 to +125	8-pin MSOP
MCP48FVB11	10	1	SPI	Volatile	V_{DD}, V_{REF}, V_{BG}	7.8	0.5	1.5	180	–40 to +125	8-pin MSOP
MCP48FVB21	12	1	SPI	Volatile	V_{DD}, V_{REF}, V_{BG}	7.8	1	6	180	–40 to +125	8-pin MSOP
MCP48FVB02	8	2	SPI	Volatile	V_{DD}, V_{REF}, V_{BG}	7.8	0.25	0.5	380	–40 to +125	8-pin MSOP
MCP48FVB12	10	2	SPI	Volatile	V_{DD}, V_{REF}, V_{BG}	7.8	0.5	1.5	380	–40 to +125	8-pin MSOP
MCP48FVB22	12	2	SPI	Volatile	V_{DD}, V_{REF}, V_{BG}	7.8	1	6	380	–40 to +125	8-pin MSOP
MCP47FEB01	8	1	I^2C	EEPROM	V_{DD}, V_{REF}, V_{BG}	6	0.25	0.5	180	–40 to +125	8-pin MSOP
MCP47FEB11	10	1	I^2C	EEPROM	V_{DD}, V_{REF}, V_{BG}	6	0.5	1.5	180	–40 to +125	8-pin MSOP
MCP47FEB21	12	1	I^2C	EEPROM	V_{DD}, V_{REF}, V_{BG}	6	1	6	180	–40 to +125	8-pin MSOP
MCP47FEB02	8	2	I^2C	EEPROM	V_{DD}, V_{REF}, V_{BG}	6	0.25	0.5	380	–40 to +125	8-pin MSOP
MCP47FEB12	10	2	I^2C	EEPROM	V_{DD}, V_{REF}, V_{BG}	6	0.5	1.5	380	–40 to +125	8-pin MSOP
MCP47FEB22	12	2	I^2C	EEPROM	V_{DD}, V_{REF}, V_{BG}	6	1	6	380	–40 to +125	8-pin MSOP
MCP47FVB01	8	1	I^2C	Volatile	V_{DD}, V_{REF}, V_{BG}	6	0.25	0.5	180	–40 to +125	8-pin MSOP
MCP47FVB11	10	1	I^2C	Volatile	V_{DD}, V_{REF}, V_{BG}	6	0.5	1.5	180	–40 to +125	8-pin MSOP
MCP47FVB21	12	1	I^2C	Volatile	V_{DD}, V_{REF}, V_{BG}	6	1	6	180	–40 to +125	8-pin MSOP
MCP47FVB02	8	2	I^2C	Volatile	V_{DD}, V_{REF}, V_{BG}	6	0.25	0.5	380	–40 to +125	8-pin MSOP
MCP47FVB12	10	2	I^2C	Volatile	V_{DD}, V_{REF}, V_{BG}	6	0.5	1.5	380	–40 to +125	8-pin MSOP
MCP47FVB22	12	2	I^2C	Volatile	V_{DD}, V_{REF}, V_{BG}	6	1	6	380	–40 to +125	8-pin MSOP
MCP47DA1	6	1	I^2C	Volatile	V_{REF}	6	0.35	0.7	160	–40 to +125	6-pin SOT23, 6-pin SC70
MCP4706	8	1	I^2C	EEPROM	V_{DD}, V_{REF}	6	0.05	0.907	400	–40 to +125	6-pin SOT23, 6-pin 2 × 2 DFN
MCP4716	10	1	I^2C	EEPROM	V_{DD}, V_{REF}	6	0.188	3.625	400	–40 to +125	6-pin SOT23, 6-pin 2 × 2 DFN
MCP4726	12	1	I^2C	EEPROM	V_{DD}, V_{REF}	6	0.75	14.5	400	–40 to +125	6-pin SOT23, 6-pin 2 × 2 DFN
MCP4725	12	1	I^2C	EEPROM	V_{DD}	6	0.75	14.5	400	–40 to +125	6-pin SOT23
MCP4728	12	4	I^2C	EEPROM	V_{DD}, V_{BG}	6	0.75	13	1400	–40 to +125	10-pin MSOP
MCP4801	8	1	SPI	Volatile	V_{BG}	4.5	0.5	1	400	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4811	10	1	SPI	Volatile	V_{BG}	4.5	0.5	3.5	400	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4821	12	1	SPI	Volatile	V_{BG}	4.5	0.75	12	400	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4802	8	2	SPI	Volatile	V_{BG}	4.5	0.5	1	400	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4812	10	2	SPI	Volatile	V_{BG}	4.5	0.5	3.5	400	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4822	12	2	SPI	Volatile	V_{BG}	4.5	0.75	12	400	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4901	8	1	SPI	Volatile	V_{REF}	4.5	0.5	1	350	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4911	10	1	SPI	Volatile	V_{REF}	4.5	0.5	3.5	350	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4921	12	1	SPI	Volatile	V_{REF}	4.5	0.75	12	350	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4902	8	2	SPI	Volatile	V_{REF}	4.5	0.5	1	350	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4912	10	2	SPI	Volatile	V_{REF}	4.5	0.5	3.5	350	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP
MCP4922	12	2	SPI	Volatile	V_{REF}	4.5	0.75	12	350	–40 to +125	8-pin MSOP, 8-pin 2 × 3 DFN, 8-pin SOIC, 8-pin PDIP

INTERFACE

INTERFACE: Controller Area Network (CAN) Products

Part #	Description and Features	Operating Voltage (V)	Temperature Range (°C)	Tx Buffers	Rx Buffers	Filters	Masks	Interrupt Output	Packages
MCP2510[1]	CAN 2.0B Active controller with SPI interface to MCU, three transmit buffers, two receive buffers, HW and SW message triggers	2.7 to 5.5	–40 to +125	3	2	6	2	Yes	18-pin PDIP, 18-pin SOIC, 20-pin TSSOP
MCP2515	MCP2510 pin-compatible upgrade with enhanced features including higher throughput and data byte filtering	2.7 to 5.5	–40 to +125	3	2	6	2	Yes	18-pin PDIP, 18-pin SOIC, 20-pin TSSOP
MCP25020	CAN 2.0B Active I/O Expander, Configurable I/O, two PWM outputs	2.7 to 5.5	–40 to +125	3	2	2	1	N/A	14-pin PDIP, 14-pin SOIC
MCP25025	CAN 2.0B Active I/O Expander, Configurable I/O, two PWM outputs, One-wire CAN option	2.7 to 5.5	–40 to +85	3	2	2	1	N/A	14-pin PDIP, 14-pin SOIC
MCP25050	Mixed-Signal CAN 2.0B Active I/O Expander, Configurable I/O, four 10-bit ADCs, two PWM outputs	2.7 to 5.5	–40 to +125	3	2	2	1	N/A	14-pin PDIP, 14-pin SOIC
MCP25055	Mixed-Signal CAN 2.0B Active I/O Expander, Configurable I/O, four 10-bit ADCs, two PWM outputs, One-wire CAN option	2.7 to 5.5	–40 to +85	3	2	2	1	N/A	14-pin PDIP, 14-pin SOIC
MCP2551	High-speed CAN Transceiver (1 Mbps max. CAN bus speed), ISO11898 compatible, Industry-standard pinout	4.5 to 5.5	–40 to +125	N/A	N/A	N/A	N/A	N/A	8-pin PDIP, 8-pin SOIC
MCP2561	HS CAN Transceiver; 1 Mbps, ISO11898-5, meets automotive EMC and CAN conformance requirements, MCP2561 = SPLIT Option for common mode stabilization	4.5 to 5.5	–40 to +150	N/A	N/A	N/A	N/A	N/A	8-pin PDIP, 8-pin SOIC, 8-pin 3 × 3 DFN
MCP2562	HS CAN Transceiver; 1 Mbps, ISO11898-5, meets automotive EMC and CAN conformance requirements, MCP2562 = Vio Option for digital I/O level shifting from 1.8V to 5.5V	4.5 to 5.5	–40 to +150	N/A	N/A	N/A	N/A	N/A	8-pin PDIP, 8-pin SOIC, 8-pin 3 × 3 DFN
MCP25625	Integrated High-Speed CAN Transceiver and CAN 2.0B Controller	2.7 to 5.5	–40 to +125	3	2	6	2	1	28-pin SSOP, 28-pin 6 × 6 QFN
MCP2561FD	CAN Flexible Data Rate Transceiver	4.5 to 5.5	–40 to +150	N/A	N/A	N/A	N/A	N/A	8-pin PDIP, 8-pin SOIC, 8-pin 3 × 3 DFN
MCP2562FD	CAN Flexible Data Rate Transceiver	4.5 to 5.5	–40 to +150	N/A	N/A	N/A	N/A	N/A	8-pin PDIP, 8-pin SOIC, 8-pin 3 × 3 DFN
MCP25612FD	Dual CAN FD Transceiver capable of both Classic CAN and CAN FD applications, optimized for up to 8 Mbps operation, standby current of 5 µA, typ. per transceiver	4.5 to 5.5	–40 to +150	N/A	N/A	N/A	N/A	N/A	14-pin SOIC

Note 1: Not recommended for new designs.

INTERFACE: LIN Transceiver Products

Part #	Description	V_{REG} Output Voltage (V)	Operating Temp. Range (°C)	V_{REG} Output Current (mA)	V_{CC} Range (V)	Max Baud Rate	LIN Specification Supported	Packages
MCP2003B	Stand-alone LIN Transceiver (industry-standard pinout)	None	–40 to +150	None	6 to 30	20 Kbaud	Revision 1.3, 2.0, 2.1, 2.2, SAE J2602	8-pin SOIC, 8-pin 2 × 3 DFN, 8-pin 3 × 3 DFN
MCP2003A	Stand-alone LIN Transceiver (industry-standard pinout)	None	–40 to +125	None	6 to 27	20 Kbaud	Revision 1.3, 2.0, 2.1, SAE J2602	8-pin PDIP, 8-pin SOIC, 8-pin 4 × 4 DFN
MCP2004A	Stand-alone LIN Transceiver with TXE/Fault I/O	None	–40 to +125	None	6 to 27	20 Kbaud	Revision 1.3, 2.0, 2.1, SAE J2602	8-pin PDIP, 8-pin SOIC, 8-pin 4 × 4 DFN
MCP2021A	LIN Transceiver with integrated V_{REG}	5.0 ± 3%, 3.3 ± 3%	–40 to +125	70	6 to 18	20 Kbaud	Revision 1.3, 2.0, 2.1, SAE J2602	8-pin PDIP, 8-pin SOIC, 8-pin 4 × 4 DFN
MCP2022A	LIN Transceiver with integrated V_{REG}, RESET pin	5.0 ± 3%, 3.3 ± 3%	–40 to +125	70	6 to 18	20 Kbaud	Revision 1.3, 2.0, 2.1, SAE J2602	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP
MCP2025	LIN Transceiver with integrated V_{REG}	5.0 ± 3%, 3.3 ± 3%	–40 to +125	70	6 to 18	20 Kbaud	Revision 2.0	8-pin PDIP, 8-pin SOIC, 8-pin 4 × 4 DFN
MCP2050	LIN Transceiver with integrated V_{REG}, WWDT	5.0 ± 3%, 3.3 ± 3%	–40 to +125	70	6 to 18	20 Kbaud	Revision 1.3, 2.0, 2.1, SAE J2602	14-pin PDIP, 14-pin SOIC, 20-pin QFN

INTERFACE: Ethernet Products

Part #	Description	Interface (Upstream)	Wake-On-LAN	EEE	Industrial Version	Packages
Ethernet Controllers						
ENC28J60	10Base-T Ethernet Controller	SPI	–	–	✓	28-pin SPDIP, SSOP, SOIC, QFN
ENC624J600	10Base-T/100Base-TX Ethernet Controller with Security	SPI/Parallel	–	–	✓	24-pin TQFN, QFN, 64-pin TQFN
LAN9217	10Base-T/100Base-TX Ethernet Controller with 16-bit/MII interface	16-bit Host Bus/MII	–	–	–	100-pin TQFP
LAN9218	10Base-T/100Base-TX Ethernet Controller with 32-bit interface	32-bit Host Bus	–	–	✓	100-pin TQFP
LAN9220	10Base-T/100Base-TX Ethernet Controller with 16-bit interface	16-bit Host Bus	–	–	–	56-pin QFN
LAN9221	10Base-T/100Base-TX Ethernet Controller with 16-bit interface	16-bit Host Bus	–	–	✓	56-pin QFN
LAN9420	10Base-T/100Base-TX Ethernet Controller with 32-bit PCI interface	32-bit PCI 3.0	–	–	✓	128-pin VTQFP
LAN89218	TrueAuto, 10Base-T/100Base-TX Ethernet Controller with 32-bit interface	32-bit Host Bus	–	–	Automotive	100-pin TQFP

*Note: All products above are supported with 3.3V operating voltage

EtherCAT® Controllers						
Part #	**Description**	**Interface (Upstream)**	**1588-2008**	**Cable Diagnostics**	**100 FX (Fiber Support)**	**Packages**
LAN9252	2/3-Port 100 EtherCAT Slave Controller	SPI/SQI™/8/16/32 Host Bus	Clock Synchronization	✓	✓	64-pin QFN, 64-pin TQFP-EP

INTERFACE: Ethernet Products

Part #	Description	Interface (Upstream)	1588-2008	Cable Diagnostics	100 FX (Fiber Support)	Packages
Ethernet Switches						
LAN9303	3-Port 10/100 Managed Ethernet Switch	MII/RMII/Turbo MII	–	–	–	56-pin QFN
LAN9303M	3-Port 10/100 Managed Ethernet Switch	MII/RMII/Turbo MII	–	–	–	72-pin QFN
LAN9353	3-Port 10/100 Managed Ethernet Switch with Single MII/RMII/Turbo MII or Dual RMII	MII/RMII/Turbo MII	✓	✓	✓	64-pin QFN, 64-pin TQFP-EP
LAN9354	3-Port 10/100 Managed Ethernet Switch with Single RMII	RMII	✓	✓	✓	56-pin QFN
LAN9355	3-Port 10/100 Managed Ethernet Switch with Dual MII/RMII/Turbo MII	MII/RMII/Turbo MII	✓	✓	✓	88-pin QFN, 80-pin TQFP-EP

INTERFACE: Ethernet Products

Part #	Description	Interface (Upstream)	Wake-On-LAN	EEE	Industrial Version	Packages
USB to Ethernet						
LAN9500A	USB 2.0 to 10/100 Ethernet Controllers	USB 2.0	–	–	✓	56-pin QFN
LAN9730	USB HSIC 2.0 to 10/100 Ethernet Controllers	USB 2.0 (HSIC), MII	–	–	✓	56-pin QFN
LAN7500	USB 2.0 to 10/100/1000 Ethernet Controllers	USB 2.0	–	–	✓	56-pin QFN
LAN9512	USB 2.0 to 10/100 Ethernet Controllers with 2-Port USB 2.0 Hub	USB 2.0	–	–	✓	64-pin QFN
LAN9513	USB 2.0 to 10/100 Ethernet Controllers with 3-Port USB 2.0 Hub	USB 2.0	–	–	✓	64-pin QFN
LAN9514	USB 2.0 to 10/100 Ethernet Controllers with 4-Port USB 2.0 Hub	USB 2.0	–	–	✓	64-pin QFN
LAN89530	TrueAuto, USB 2.0 to 10/100 Ethernet Controllers	USB 2.0	–	–	Automotive	56-pin QFN
Ethernet Transceivers						
LAN8710A	Small-Footprint, Low Power Consumption, Full-Featured 10/100 Ethernet Transceivers	MII/RMII	–	–	✓	32-pin QFN
LAN8720A	Small-Footprint, Low Power Consumption, Full-Featured 10/100 Ethernet Transceivers	RMII	–	–	✓	24-pin QFN
LAN8740A	Small-Footprint, 10/100 PHY Family Featuring Energy Efficient Ethernet and Wake-On-LAN	MII/RMII	✓	✓	✓	32-pin QFN
LAN8741A	Small-Footprint, 10/100 PHY Family Featuring Energy Efficient Ethernet	MII/RMII	–	✓	✓	32-pin QFN
LAN8742A	Small-Footprint, 10/100 PHY Family Featuring Wake-On-LAN	RMII	✓	–	✓	24-pin QFN
LAN8810	GMII 10/100/1000 Ethernet Transceiver with HP Auto-MDIX Support	GMII	–	–	✓	72-pin QFN
LAN8820	RGMII 10/100/1000 Ethernet Transciever with HP Auto-MDIX Support	RGMII	–	–	✓	56-pin QFN
LAN88730	TrueAuto, Small Footprint, Low Power Consumption, Full-Featured 10/100 Ethernet Transceivers	MII/RMII	–	–	Automotive	32-pin QFN

*Note: All products above are supported with 3.3V operating voltage

INTERFACE: Passive Access Products

Part #	Operating Voltage (V)	Operating Temp. Range (°C)	Bus Type	RF Carrier Frequency	Data Format	Features	Packages
MCP2030	1.8 to 3.6	–40 to +85	SPI	125 kHz	NRZ	Three axis signal conditioning devices for passive access applications, high-sensitivity, configurable smart wake-up filter	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP

INTERFACE: Infrared Products

Part #	Operating Voltage (V)	Operating Temp. Range (°C)	Max Baud Rate (Kbaud)	Unique Features	Packages
MCP2120	2.5 to 5.5	–40 to +85	325	UART to IR encoder/decoder with both hardware and software baud rate selection	14-pin PDIP, 14-pin SOIC
MCP2122	1.8 to 5.5	–40 to +85	16× less than clock input	UART to IR encoder/decoder	8-pin PDIP, 8-pin SOIC
MCP2140A	2.0 to 5.5	–40 to +85	9.6	IrDA® Standard protocol handler plus bit encoder/decoder, fixed baud rate, low cost	18-pin PDIP, 18-pin SOIC, 20-pin SSOP
MCP2150	3.0 to 5.5	–40 to +85	115.2	IrDA Standard protocol handler plus bit encoder/decoder on one chip for DTE applications, programmable ID	18-pin PDIP, 18-pin SOIC, 20-pin SSOP
MCP2155	3.0 to 5.5	–40 to +85	115.2	IrDA Standard protocol handler plus bit encoder/decoder on one chip for DCE applications, programmable ID	18-pin PDIP, 18-pin SOIC, 20-pin SSOP

IrDA® is a registered trademark of Infrared Data Association

INTERFACE: Serial Peripherals

Part #	Description	Operating Voltage (V)	Operating Temp. Range (°C)	Bus Type	Max Bus Frequency (kHz)	Features	Packages
MCP23008	8-bit I/O Port Expander	1.8 to 5.5	–40 to +85	I²C	1700	Three HW address pins, HW interrupt, 25 mA source/sink capability per I/O	18-pin PDIP, 18-pin SOIC, 20-pin SSOP, 20-pin 4 × 4 QFN
MCP23S08	8-bit I/O Port Expander	1.8 to 5.5	–40 to +85	SPI	10000	Two HW address pins, HW interrupt, 25 mA source/sink capability per I/O	18-pin PDIP, 18-pin SOIC, 20-pin SSOP, 20-pin 4 × 4 QFN
MCP23009	8-bit I/O Port Expander	1.8 to 5.5	–40 to +125	I²C	3400	One HW address pin, HW interrupt, 25 mA source/sink per I/O, 100 kHz, 400 kHz and 3.4 MHz I²C supported	18-pin PDIP, 18-pin SOIC, 20-pin SSOP
MCP23S09	8-bit I/O Port Expander	1.8 to 5.5	–40 to +125	SPI	10000	HW interrupt, 25 mA source/sink per I/O	18-pin PDIP, 18-pin SOIC
MCP23016	16-bit I/O Port Expander	2.0 to 5.5	–40 to +85	I²C	400	Three HW address inputs, HW interrupt, 25 mA source/sink capability per I/O	28-pin PDIP, 28-pin SOIC, 28-pin SSOP, 28-pin 6 × 6 QFN
MCP23017	16-bit I/O Expander	1.8 to 5.5	–40 to +125	I²C	1700	Three HW address pins, 25 mA sink/source per I/O, 100 kHz, 400 kHz and 3-4 MHz I²C supported, Interrupt output	28-pin PDIP, 28-pin SOIC, 28-pin SSOP, 28-pin QFN

INTERFACE: Serial Peripherals (Continued)

Part #	Description	Operating Voltage (V)	Operating Temp. Range (°C)	Bus Type	Max Bus Frequency (kHz)	Features	Packages
MCP23S17	16-bit I/O Expander	1.8 to 5.5	–40 to +125	SPI	10000	Three HW address pins, 25 mA sink/source per I/O, Interrupt output	28-pin PDIP, 28-pin SOIC, 28-pin SSOP, 28-pin QFN
MCP23018	16-bit I/O Port Expander	1.8 to 5.5	–40 to +125	I²C	3400	One HW address pin, 2 HW interrupts, 25 mA source/sink per I/O, 100 kHz, 400 kHz and 3.4 MHz I²C supported	24-pin SSOP, 28-pin SOIC, 28-pin SDIP
MCP23S18	16-bit I/O Port Expander	1.8 to 5.5	–40 to +125	SPI	10000	Two HW interrupts, 25 mA source/sink per I/O	28-pin SOIC, 28-pin SDIP

INTERFACE: Wi-Fi® Modules

Part #	Radio	Pin Count	Antenna	Frequency Range (GHz)	Sensitivity (dBm)	Power Output (dBm)	Power Consumption (mA)		Sleep	MAC	MAC Features	Protocols	Encryption	Interface	Packages
							Tx	Rx							
RN1810	802.11 b/g	37	PCB, W.FL	2.412–2.472	–94	0 to +12	245 (+18 dBm)	64	12 µA	Yes	802.11b/g/n, SoftAP, WPS	IPv4/IPv6, TCP, UDP, DHCP, DNS, ICMP, ARP, HTTP, FTP, SNTP, SSL/TLS	WEP, WPA-PSK, WPA2-PSK	UART	37/Module (26.7 × 17.8 mm)
RN1723	802.11 b/g	49	RF PAD	2.412–2.484	–83	0 to +12	120 (0 dBm)	40	4 µA	Yes	802.11b/g, SoftAP, WPS, Webscan	DHCP, DNS, ARP, ICMP, FTP client, HTTP client, TCP, UDP	WEP, WPA, WPA2, EAP	UART	49/Module (26.7 × 17.8 mm)
RN171	802.11 b/g	49	RF PAD	2.412–2.484	–83	0 to +12	190 (+12 dBm)	38	4 µA	Yes	802.11b/g, SoftAP, WPS, Webscan	DHCP, DNS, ARP, ICMP, FTP client, HTTP client, TCP, UDP	WEP, WPA, WPA2, EAP	UART	49/Module (26.7 × 17.8 mm)
RN131	802.11 b/g	44	Chip, U.FL	2.412–2.484	–85	+18	210 (+18 dBm)	40	4 µA	Yes	802.11b/g, SoftAP, WPS, Webscan	DHCP, DNS, ARP, ICMP, FTP client, HTTP client, TCP, UDP	WEP, WPA, WPA2, EAP	UART	44/Module (37.0 × 20.0 mm)
RN171XV	802.11 b/g	49	Wire, U.FL, SMA	2.412–2.484	–83	0 to +12	190 (+12 dBm)	38	4 µA	Yes	802.11b/g, SoftAP, WPS, Webscan	DHCP, DNS, ARP, ICMP, FTP client, HTTP client, TCP, UDP	WEP, WPA, WPA2, EAP	UART	2 × 10/Through hole module (24.4 × 34.3 mm)
MRF24WN0MA	802.11 b/g/n	37	PCB	2.412–2.484	–94	+18	115 (0 dBm)	60	5 µA	Yes	802.11b/g/n, SoftAP, WPS, Wi-Fi® Direct	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf[2]	WPA2-PSK, WPA-PSK, WEP, WPA-2-ENTERPRISE	4-wire SPI	37/Module (26.7 × 17.8 mm)
MRF24WN0MB	802.11 b/g/n	37	W.FL	2.412–2.484	–94	+18	115 (0 dBm)	60	5 µA	Yes	802.11b/g/n, SoftAP, WPS, Wi-Fi Direct	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf[2]	WPA2-PSK, WPA-PSK, WEP, WPA-2-ENTERPRISE	4-wire SPI	37/Module (26.7 × 17.8 mm)
MRF24WG0MA	802.11 b/g	36	PCB	2.412–2.484	–95	+18	240	156	0.1 mA[1]	Yes	802.11b/g, Wi-Fi Direct, SoftAP, WPS	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf[2]	WPA2-PSK, WPA-PSK, WEP, WPA-2-ENTERPRISE	4-wire SPI	36/Module (21.0 × 31.0 mm)
MRF24WG0MB	802.11 b/g	36	U.FL	2.412–2.484	–95	+18	240	156	0.1 mA[1]	Yes	802.11b/g, Wi-Fi Direct, SoftAP, WPS	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf[2]	WPA2-PSK, WPA-PSK, WEP, WPA2-ENTERPRISE	4-wire SPI	36/Module (21.0 × 31.0 mm)

Note 1: Indicates "off" current **Note 2:** Supported in the provided stack

INTERFACE: Bluetooth® Modules

Product	Bluetooth Spec	Module Type	No Shield Option	Rx Sensitivity (dBm)	Power Output (dBm) (typ.)	Power Consumption	Sleep	Profiles	Interface	Pin Count	Packages (Dimensions)
BM20	4.1	Audio	Yes	–91	4	Standby 0.8 mA, SCO Link 7.8 mA, A2DP Link 10.7 mA	System Off 2 µA	HFP, HSP, A2DP, AVRCP, SPP, PCAP	Analog audio out, mic in, line in, UART	40	29 × 15 × 2.5 mm
BM23	4.1	Audio	Yes	–91	4	Standby 0.4 mA, SCO Link 9.3 mA, A2DP Link 11.7 mA	System Off 2 µA	HFP, HSP, A2DP, AVRCP, SPP, PCAP	I²S Digital audio out, mic in, line in, UART	43	29 × 15 × 2.5 mm
RN52	3.0	Audio	No	–85	4	Idle 12 mA, Connected A2DP 26 mA, HFP/HSP 23.5 mA	N/A	A2DP, AVRCP, SPP, HFP/HSP, iAP	(Audio) Analog speaker, microphone, I²S master mode, S/PDIF, (Data) UART, USB, GPIO	50	13.5 × 26.0 mm
BM70	4.2	Data, Single-Mode BLE	Yes	–90	0	Standby 1.9 µA, Link Static 60 µA, Tx peak = 13 mA at 0 dBm	Power saving 1 µA	GAP, GATT, SM, L2CAP, Integrated public profiles	UART, I²C, SPI, ADC, PWM, GPIOs	33	22 × 12 × 2.4 mm 25 × 12 × 1.8 mm
BM71	4.2	Data, Single-Mode BLE	Yes	–90	0	Standby 1.9 µA, Link Static 60 µA, Tx peak = 13 mA at 0 dBm	Power saving 1 µA	GAP, GATT, SM, L2CAP, Integrated public profiles	UART, I²C, SPI, ADC, PWM, GPIOs	17	9 × 11.5 × 2.1 mm 6 × 8 × 1.6 mm
RN4020	4.1	Data, Single-Mode BLE	No	–92.5	7	Idle < 1.5 mA, Tx/Rx active 16 mA at 0 dBm	Dormant < 700 nA, deep sleep < 5.0 µA	GAP, GATT, SM, L2CAP, integrated public profiles	UART, PIO, AIO, SPI	24	11.5 × 19.5 mm
BM77	4.0	Data, Dual-Mode	Yes	–80 Classic –92 LE	2	Idle 1.2 mA, Connected (transfer data) 18.6 mA (BTLE), Idle 2.5 mA, Connected (transfer data) 23 mA (Classic)	Deep Power Down 343 µA	GAP, SDP, SPP, GATT	UART	33	22 × 12 × 2.4 mm 25 × 12 × 1.8 mm
RN4677	4.0	Data, Dual-Mode	Yes	–80 Classic –92 LE	2	Idle 1.2 mA, Connected (transfer data) 18.6 mA (BTLE), Idle 2.5 mA, Connected (transfer data) 23 mA (Classic)	Deep Power Down 343 µA	GAP, SDP, SPP, GATT	UART	33	22 × 12 × 2.4 mm 25 × 12 × 1.8 mm

INTERFACE: Bluetooth® Modules (Continued)

Product	Bluetooth Spec	Module Type	No Shield Option	Rx Sensitivity (dBm)	Power Output (dBm) (typ.)	Power Consumption	Sleep	Profiles	Interface	Pin Count	Packages (Dimensions)
BM78	4.2	Data, Dual-Mode	Yes	–90 (BR/EDR) –92 LE	2	LE Fast Advertising (int. 160 ms), Connected (transfer data) 7.0 mA (BTLE), Standby 2.5 mA, Connected (transfer data) 10.67 mA (Classic)	Deep Power Down 130 µA	BT3.0: GAP, SPP, SDP, RFCOMM, L2CAP BT4.2: GAP, GATT, ATT, SMP, L2CAP	UART, I²C, GPIOs	33	22 × 12 × 2.4 mm 25 × 12 × 1.8 mm
RN41	2.1	Data	No	–80	15	Standby/Idle 25 mA, Connected (normal mode) 30 mA, Connected (low power sniff) 8 mA	Standby/Idle (deep sleep enabled) 250 µA	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB	35	13.4 × 25.8 mm
RN41XV	2.1	Data	No	–80	15	Standby/Idle 25 mA, Connected (normal mode) 30 mA, Connected (low power sniff) 8 mA	Standby/Idle (deep sleep enabled) 250 µA	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB,	35	24.4 × 29.2 mm
RN42	2.1	Data	No	–80	4	Standby/Idle 25 mA, Connected (normal mode) 3 mA, Connected (low power sniff) 8 mA	Standby/Idle (deep sleep enabled) 26 µA	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB,	35	13.4 × 25.8 mm
RN42XV	2.1	Data	No	–80	4	Standby/Idle 25 mA, Connected (normal mode) 3 mA, Connected (low power sniff) 8 mA	Standby/Idle (deep sleep enabled) 26 µA	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB,	35	24.4 × 29.2 mm

INTERFACE: IEEE 802.15.4 ZigBee® RF Transceiver Products

Part #	Pin Count	Antenna	Frequency Range (GHz)	Sensitivity (dBm)	Power Output (dBm)	RSSI	Tx Power Consumption (mA)	Rx Power Consumption (mA)	Clock (MHz)	Sleep	MAC	MAC Features	Encryption	Interface	Packages
MRF24J40	40	–	2.405 to 2.48	–95	0	Yes	23	19	20	2 µA	Yes	CSMA-CA	AES128	4-wire SPI	40-pin QFN
MRF24J40MA	12	PCB	2.405 to 2.48	–94	0	Yes	23	19	20	2 µA	Yes	CSMA-CA	AES128	4-wire SPI	12/Module
MRF24J40MD	12	PCB	2.405 to 2.48	–104	+19	Yes	140	32	20	10 µA	Yes	CSMA-CA	AES128	4-wire SPI	12/Module
MRF24J40ME	12	U.FL	2.405 to 2.48	–104	+19	Yes	140	32	20	10 µA	Yes	CSMA-CA	AES128	4-wire SPI	12/Module

INTERFACE: Sub-GHz Transceivers/Modules

Part #	Pin Count	Frequency Range (MHz)	Sensitivity (dBm)	Power Output (dBm)	RSSI	Tx Power Consumption (mA)	Rx Power Consumption (mA)	Clock (MHz)	Sleep	Interface	Packages
MRF49XA	16	433/868/915	–110	+7	Yes	15 mA @ 0 dBm	11	10 MHz	0.3 µA	4-wire SPI	16-pin TSSOP
MRF89XA	32	868/915/950	–113	+12.5	Yes	25 mA @ +10 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	32-pin TQFN
MRF89XAM8A	12	868	–113	+12.5	Yes	25 mA @ +10 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	12/Module
MRF89XAM9A	12	915	–113	+12.5	Yes	25 mA @ +10 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	12/Module

INTERFACE: Sub-GHz Transmitters

Part #	Pin Count	Frequency Range (MHz)	Modulation	Data Rate (Kbps)	Tx Power (dBm)	Operating Voltage (V)	Packages
MICRF114	6	285–445	OOK	115.2 (NRZ), 57.6 (Manchester Encoded)	10	1.8–3.6	6-pin SOT-23
MICRF113	6	300–450	ASK	20	10	1.8–3.6	6-pin SOT-23
MICRF112	10	300–450	ASK/FSK	50 (ASK), 10 (FSK)	10	1.8–3.6	10-pin MSOP, 10-pin DFN

INTERFACE: Sub-GHz Receivers

Part #	Pin Count	Frequency Range (MHz)	Modulation	Data Rate (Kbps)	Sensitivity (dBm)	RSSI	Rx Power Consumption (mA)	Sleep	Interface	Packages
MRF39RA	24	433/868/915			–120	Yes	16	100	4-wire SPI	24-pin QFN
MICRF219A	16	300–450	ASK/OOK	20	–110	Yes	4.3	15 µA	Serial Output	16-pin QSOP
MICRF220	16	300–450	ASK/OOK	20	–110	Yes	4.3	N/A	Serial Output	16-pin QSOP
MICRF221	16	850–950	ASK/OOK	10	–109	Yes	9	15 µA	Serial Output	16-pin QSOP
MICRF229	16	400–450	ASK/OOK	20	–112	Yes	6	15 µA	Serial Output	16-pin QSOP
MICRF230	16	400–450	ASK/OOK	20	–112	Yes	6	N/A	Serial Output	16-pin QSOP

INTERFACE: MCU Transmitters

Part #	Pin Count	Frequency Range (MHz)	Program Memory (Bytes)	EEPROM (bytes)	RAM (bytes)	Digital Timer	Watch Dog Timer	Max Speed (MHz)	ICSP	Modulation	Data Rate (kbps)	Output Power (dBm)	Operating Voltage (V)	Packages
PIC12F529T39A	6	310–928	2.3K	64	201	1	1	8	Yes	OOK/FSK	100	10	2.0–3.7	14-pin TSSOP
PIC12LF1840T39A	6	310–928	7.1K	256	256	2	1	32	Yes	OOK/FSK	100	10	1.8–3.6	14-pin TSSOP
PIC16LF1824T39A	20	310–928	4K	256	256	1	1	32	Yes	OOK/FSK	100	10	1.8–3.6	20-pin TSSOP
rfPIC12F675F	6	380–450	1.7K	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0–5.5	20-pin SSOP
rfPIC12F675H	6	850–930	1.7K	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0–5.5	20-pin SSOP
rfPIC12F675K	6	290–350	1.7K	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0–5.5	20-pin SSOP

INTERFACE: USB Bridge Devices

Part #	USB Speed	USB Compliant	PHY	MCU Interface	Tx/Rx Buffer Size (bytes)	Number of GPIO	Operating Voltage (V)	Packages
MCP2200	Full-Speed USB (12 Mb/s), Low-Speed USB (1.5 Mb/s)	Yes	Yes	UART	128/128	8	2.7 to 5.5	20-pin SOIC, 20-pin TSSOP, 20-pin QFN
MCP2210	Full-Speed USB (12 Mb/s), Low-Speed USB (1.5 Mb/s)	Yes	Yes	SPI	64	9	3.3 to 5.5	20-pin SOIC, 20-pin TSSOP, 20-pin QFN
MCP2221	Full-Speed USB (12 Mb/s), Low-Speed USB (1.5 Mb/s)	Yes	Yes	I²C	64	4	3.0 to 5.5	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP, 16-pin QFN

INTERFACE: USB Products

Part #	Description	Processor Interface	# of Downstream Ports	Card Formats	Industrial Version	Packages
USB Hub Controllers						
USB2412	Hi-Speed USB 2.0 2-Port Hub	USB 2.0	2	–	–	28-pin QFN
USB2422	Small-footprint, 2-Port Value Hub, Commercial and Industrial Temperature with USB Battery Charging 1.1	USB 2.0	2	–	✓	24-pin QFN
USB251XB/ USB2517	Hi-Speed USB 2.0 Hub with Battery Charger Detection	USB 2.0	2, 3, 4, 7 port options	–	✓, Automotive	36 or 64-pin QFN
USB2524	4-Port Hi-Speed USB 2.0 Multi-Switch Hub	USB 2.0 × 2	4	–	–	56-pin QFN
USB3503	3-Port Hi-Speed USB 2.0 HSIC Hub for Mobile Applications	HSIC	3	–	✓	25-ball WLCSP
USB3803	3-Port Hi-Speed USB 2.0 Hub for Mobile Applications	USB 2.0	3	–	✓	25-ball WLCSP
USB3X13	3-Port Hi-Speed USB 2.0 Smart Hub for Mobile Applications	USB 2.0 or HSIC	3 (USB 2.0 ×2/HSIC ×1)	–	✓	30-ball WLCSP
USB253X	Hi-Speed USB 2.0 Controller Hub with Battery Charger Detection	USB 2.0	2, 3, 4 port options	–	✓	36-pin QFN
USB46X4	Hi-Speed USB 2.0 Controller Hub with USB and HSIC Interfaces	USB 2.0 or HSIC	4 (USB 2.0 ×4 or USB 2.0 ×2/HSIC ×2)	–	✓, Automotive	48-pin QFN
USB553XB	SuperSpeed USB 3.0 Hub with Battery Charger Detection	USB 3.0	2, 3, 4 or 7 port options	–	✓	64 or 72-pin QFN
USB5734	SuperSpeed USB 3.1 Gen1 Smart Hub Controller with I/O Bridging and FlexConnect	USB 3.1 Gen1	4	–	✓, Automotive	64-pin QFN
USB5744	SuperSpeed USB 3.1 Gen1 Small Form Factor Hub Controller	USB 3.1 Gen1	4	–	✓	56-pin QFN
USB-C™ Power and Charging						
UTC200X	USB-C Controller	I/O	1 DFP or 1 UFP	–	✓, Automotive	16-pin QFN
USB Transceivers/Switches						
USB333X	Mobile Hi-Speed USB 2.0 Transceiver with Multi-frequency Support	ULPI	–	–	✓	25-ball WLCSP
USB334X	Hi-Speed USB 2.0 Transceiver with Multi-frequency Support	ULPI	–	–	Automotive	24 or 32-pin QFN
USB3300	Hi-Speed USB 2.0 Transceiver (24 MHz reference clock support)	ULPI	–	–	✓	32-pin QFN
USB3740B	Hi-Speed USB 2.0 Switch with Extremely Low Power	USB 2.0	–	–	✓	10-pin QFN
USB375XA-X	Hi-Speed USB 2.0 Port Protection with Switch and Charger Detection	USB 2.0	–	–	✓	16-pin QFN
USB Flash Media Controllers						
USB224X	Hi-Speed USB 2.0 Multi-Format Flash Media Controller	USB 2.0	–	SD™/MMC/ eMMC™/MS/xD	✓	36-pin QFN
USB225X	Hi-Speed USB 2.0 Multi-Format Flash Media Controller	USB 2.0	–	SD/MMC/eMMC/ MS/xD/CF	✓	128-pin VTQFP
USB264X	Hi-Speed USB 2.0 Multi-Format Flash Media Hub Controller	USB 2.0	2	SD/MMC/eMMC/ MS/xD	✓, Automotive	48-pin QFN
USB2660	Hi-Speed USB 2.0 Multi-Format Flash Media Hub Controller	USB 2.0	2	SD/MMC/eMMC/ MS/xD (×2)	✓	64-pin QFN
USB4640	Hi-Speed USB 2.0 Multi-Format Flash Media HSIC Hub Controller	HSIC	2	SD/MMC/eMMC/ MS/xD	✓	48-pin QFN
USB Security						
SEC1110	Smart Card Controller	USB 2.0	–	Smart Card	✓	16-pin QFN
SEC1210	Smart Card Controller with Multi-Interface Support	USB 2.0	–	Smart Card ×2	✓	24-pin QFN

INTERFACE: Real-Time Clock/Calendar (RTCC)														
Bus	Product	Pins	Timing Features				Memory[1]			Power		Unique Features[2]	5 ku Pricing†	Packages
			Digital Trimming (Adj./Range)	Alarm Settings	WDT	Outputs	SRAM (Bytes)	EERPOM (Kbits)	Protected EEPROM (bits)	Min Vcc	Min IBAT			
I²C	MCP7940M	8	±127 ppm	1 sec.	–	IRQ/CLK	64	0	0	1.8	–	–	$0.46	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY), PDIP (P)
	MCP7940N	8	±127 ppm	1 sec.	–	IRQ/CLK	64	0	0	1.8	1.3	Power Fail Timestamp	$0.59	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY), PDIP (P)
	MCP7940X	8	±127 ppm	1 sec.	–	IRQ/CLK	64	0	64	1.8	1.3	Power Fail Timestamp	$0.66	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)
	MCP7941X	8	±127 ppm	1 sec.	–	IRQ/CLK	64	1	64	1.8	1.3	Power Fail Timestamp	$0.72	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)
SPI	MCP7951X	10	±255 ppm	0.01 sec.	–	IRQ/CLK	64	1	128	1.8	1.3	Power Fail Timestamp	$0.90	SOIC (SL), TSSOP (ST)
	MCP7952X	10	±255 ppm	0.01 sec.	–	IRQ/CLK	64	2	128	1.8	1.3	Power Fail Timestamp	$0.96	MSOP (MS), TDFN (MN)
	MCP795W1X	14	±255 ppm	0.01 sec.	✓	1. CLK, 2. IRQ, 3. WDT RST	64	1	128	1.8	1.3	Power Fail Timestamp, Event Detects (× 2)	$1.22	SOIC (SL), TSSOP (ST)
	MCP795W2X	14	±255 ppm	0.01 sec.	✓	1. CLK, 2. IRQ, 3. WDT RST	64	2	128	1.8	1.3	Power Fail Timestamp, Event Detects (× 2)	$1.28	SOIC (SL), TSSOP (ST)

Note 1: All part numbers with an "X" have three protected EEPROM programming options: [0 = Blank ID], [1 = EUI-48™ MAC Address], [2 =EUI-64™ MAC Address]
2: The Power Fail Timestamp in all RTCCs occur at Battery Switchover.

SAFETY AND SECURITY

SAFETY AND SECURITY: Photoelectric Smoke Detector ICs										
Part #	Horn Driver Alarm Pattern	Alarm Memory	Low Battery Detection	Chamber Test	Alarm Interconnect	Sensitivity Timer	Internal POR	Alternate Diagnostic Mode	Operating Temp. Range (°C)	Packages
RE46C140	NFPA Temporal	No	Yes	Yes	Yes	Yes	Yes	–	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C141	NFPA Temporal	No	Yes	Yes	Yes	–	Yes	–	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C143	Continuous Tone	No	Yes	Yes	Yes	–	Yes	–	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C144	Continuous Tone	No	Yes	Yes	Yes	Yes	Yes	–	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C145	NFPA Temporal	No	Yes	Yes	Yes	Yes	Yes	Yes	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C165	NFPA Temporal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C166	Continuous Tone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C167	NFPA Temporal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C168	Continuous Tone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–25 to +75	16-pin PDIP, 16-pin SOIC
RE46C190	NFPA Temporal or Continuous Tone	Yes	Yes	Yes	Yes	Yes	Yes	–	–10 to +60	16-pin SOIC

SAFETY AND SECURITY: Ionization Smoke Detector ICs									
Part #	Horn Driver Alarm Pattern	Alarm Memory	Low Battery Detection	Reverse Battery Protection	Alarm Interconnect	Hush Timer	Power-up Low Battery Test	Operating Temp. Range (°C)	Packages
RE46C120	NFPA Temporal or Continuous Tone	No	Yes	Yes	–	–	–	–10 to +60	16-pin PDIP
RE46C121	NFPA Temporal	No	Yes	Yes	Yes	–	–	–10 to +60	16-pin PDIP
RE46C122	NFPA Temporal	No	Yes	Yes	Yes	Yes	Yes	–10 to +60	16-pin PDIP
RE46C126	Continuous Tone	No	Yes	Yes	Yes	–	–	–10 to +60	16-pin PDIP
RE46C127	Continuous Tone	No	Yes	Yes	Yes	Yes	Yes	–10 to +60	16-pin PDIP
RE46C128	NFPA Temporal	No	Yes	Yes	Yes	–	Yes	–10 to +60	16-pin PDIP
RE46C129	Continuous Tone	No	Yes	Yes	Yes	–	Yes	–10 to +60	16-pin PDIP
RE46C152	NFPA Temporal or Continuous Tone	No	Yes	Yes	Yes	Yes	Yes	–10 to +60	16-pin PDIP
RE46C162	NFPA Temporal or Continuous Tone	Yes	Yes	Yes	Yes	Yes	Yes	–10 to +60	16-pin PDIP
RE46C163	NFPA Temporal or Continuous Tone	Yes	Yes	Yes	Yes	Yes	Yes	–10 to +60	16-pin PDIP
RE46C180	NFPA Temporal or Continuous Tone	Yes	Yes	No	Yes	Yes	Yes	–10 to +60	16-pin PDIP, 16-pin SOIC

SAFETY AND SECURITY: Ionization Smoke Detector Front Ends					
Part #	Microprocessor Compatible Output	Output Options	Typical Application	Operating Temperature Range (°C)	Packages
RE46C112	Yes	VOUT 1/4 of VDD or VOUT 1/4 of Detect Input	3V or 3.3V Microprocessor	–10 to +60	8-pin PDIP
RE46C114	Yes	VOUT 1/2 of VDD or VOUT 1/2 of Detect Input	5V Microprocessor	–10 to +60	8-pin PDIP
RE46C311	Yes	Op Amp	Ionization Smoke Detector Front End	–10 to +60	8-pin PDIP, 8-pin SOIC
RE46C312	Yes	Op Amp	Ionization Smoke Detector Front End	–10 to +60	8-pin PDIP, 8-pin SOIC

SAFETY AND SECURITY: CO Detectors																	
Part #	Operating Voltage (V_{DC})	Voltage Regulator (V_{DC})	LED Driver	Horn Driver	Interconnect	Low Battery Detection	Brown Out	Boost Regulator	Op Amp Vos Max (µV)	Op Amp Ib Max (pA)	Op Amp GBWP (kHz)	Op Amp Aol (dB)	Op Amp Slew Rate (V/µS)	Op Amp Unity Gain Stable	Op Amp CMRR Min (dB)	Op Amp Rail-to-Rail	Operating Temp. Range (°C)
RE46C800	2 to 12	3.3	Yes	Yes	Yes	Yes	Yes	Yes	1000	200	10	115	0.003	Yes	80	In/Out	–10 to +60

SAFETY AND SECURITY: Piezoelectric Horn Drivers								
Part #	Operating Voltage (V)	LED Driver	Voltage Regulator (V)	Low Battery Detection	Interconnect	Power Good	Operating Temp. Range (°C)	Packages
RE46C100	6 to 16	–	–	–	–	–	–40 to +85	8-pin PDIP, 8-pin SOIC
RE46C101	6 to 16	Yes	–	–	–	–	–40 to +85	8-pin PDIP, 8-pin SOIC
RE46C104	4 to 8	–	–	–	–	–	0 to +50	14-pin PDIP, 14-pin SOIC
RE46C105	6 to 12	Yes	3.3 or 5	Yes	–	–	–40 to +85	14-pin PDIP, 14-pin SOIC
RE46C107	2 to 5	Yes	3 or 3.3	Yes	–	–	0 to +50	16-pin PDIP, 16-pin SOIC
RE46C108	6 to 12	–	3.3 or 5	–	–	–	–40 to +85	8-pin PDIP, 8-pin SOIC
RE46C109	6 to 12	–	3	Yes	Yes	Yes	–40 to +85	16-pin PDIP, 16-pin SOIC
RE46C117	2 to 5	–	–	–	–	–	0 to +50	8-pin PDIP, 8-pin SOIC
RE46C119	6 to 12	–	3	Yes	Yes	Yes	–40 to +85	16-pin PDIP, 16-pin SOIC
RE46C317	2 to 5	–	–	–	–	–	–10 to +60	8-pin PDIP, 8-pin SOIC
RE46C318	2 to 5	–	–	–	–	–	–10 to +60	8-pin PDIP, 8-pin SOIC

ULTRASOUND

ULTRASOUND: High-Voltage Analog Multiplexers								
Part #	# of Channels and Configuration	Bleed Resistor	V_{P-P}	R_{ON} (Ω)	C_{SG} On/Off (pF)	I_{SW} (A)	Features	Packages
HV20220	8 SPST	No	200V	22	38/12	3	5V–12V Logic Input, 5 MHz clock frequency	48-Lead LQFP, 28-Lead PLCC
HV20320	8 SPST	No	200V	22	38/12	3	5V–12V Logic Input, 5 MHz clock frequency	48-Lead LQFP
HV232	8 SPST	Yes	200V	22	38/12	3	5V–12V Logic Input, 5 MHz clock frequency	48-Lead LQFP, 28-Lead PLCC
HV219	8 SPST	No	200V	11	50/20	3	5V–12V Logic Input, 5 MHz clock frequency	48-Lead LQFP, 28-Lead PLCC
HV2201	8 SPST	No	200V	22	38/12	3	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP, 28-Lead PLCC
HV2301	8 SPST	Yes	200V	22	38/12	3	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP, 28-Lead PLCC
HV2221	8 SPST	No	V_{PP} range = +15V to +50V, V_{NN} range = –190V to –225V	15	70/18	4	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP
HV2321	8 SPST	Yes	V_{PP} range = +15V to +50V, V_{NN} range = –190V to –225V	15	70/18	4	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP
HV209	6 × 2:1 Mux	Yes	200V	22	38/12	3	5V–12V Logic Input, 5 MHz clock frequency	48-Lead LQFP
HV20822	2 Banks of 8 channel	No	220V	22	38/12	3	5V–12V Logic Input, 5 MHz clock frequency	48-Lead LQFP
HV238	2 Banks of 8 channel	Yes	220V	22	38/12	3	5V–12V Logic Input, 5 MHz clock frequency	48-Lead LQFP
HV2601	16 SPST	No	200V	22	38/12	3	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP, 42-Ball Bumped Die (BD)
HV2701	16 SPST	No	200V	22	38/12	3	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP, 42-Ball Bumped Die (BD)
HV2605	16 SPST	No	200V	22	13/10	3	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP, 42-Ball Bumped Die (BD)
HV2705	16 SPST	Yes	200V	22	13/10	3	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP, 42-Ball Bumped Die (BD)
HV2631	2 Banks of 8 channel	No	220V	22	38/12	2	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP
HV2731	2 Banks of 8 channel	Yes	220V	22	38/12	2	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP
HV2733	8 SPDT	Yes	200V	22	38/12	2	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP
HV2661	8 × 3:1 Mux	No	200V	22	30/9	2	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP
HV2761	8 × 3:1 Mux	Yes	200V	22	30/9	2	3.3V–5V Logic input, 20 MHz clock frequency	48-Lead LQFP
HV2662	24 SPST	No	200V	22	12/9	2	3.3V–5V Logic input, 20 MHz clock frequency	64-Ball VFBGA
HV2762	24 SPST	Yes	200V	22	12/9	2	3.3V–5V Logic input, 20 MHz clock frequency	64-Ball VFBGA
HV2808	2 Banks of 16 SPDT	No	200V	22	23/9	3	3.3V–5V Logic, A/B bar Control pin	56-Lead QFN
HV2809	2 Bank of 16	No	200V	22	23/9	3	3.3V -5V Logic, A/B bar + EN Control pins	56-Lead QFN
HV2801	16 × 2:1 Mux	No	200V	22	23/9	3	3.3V–5V Logic input, 20 MHz clock frequency	64-Lead QFN
HV2901	16 × 2:1 Mux	Yes	200V	22	23/9	3	3.3V–5V Logic input, 20 MHz clock frequency	64-Lead QFN
HV2802	32 SPST	No	200V	22	13/10	3	3.3V–5V Logic input, 20 MHz clock frequency	9 × 9 VFBGA
HV2902	32 SPST	Yes	200V	22	13/10	3	3.3V–5V Logic input, 20 MHz clock frequency	9 × 9 VFBGA

ULTRASOUND: Ultrasound MOSFET Drivers

Part #	# of Channels	Input Voltage Min. (V)	Input Voltage Max. (V)	Ouput Voltage Bipolar (V)	Output Voltage Unipolar (V)	Output Rise/ Fall Time	Peak Current	Application Circuit	Packages
MD1210	2	1.2	5.0	NA	0–12	6 ns/6 ns	±2A	Pair with 1 × TC6320	4 × 4 mm 12-lead QFN
MD1211	2	1.8	5.0	NA	0–12	10 ns/10 ns	±2A	Pair with 1 × TC6320	8-Lead SOIC
MD1213	2	1.8	5.0	±5	0–12	6 ns/6 ns	±2A	Pair with 1 × TC6320	4 × 4 mm 12-lead QFN
MD1711	12	1.8	3.3	NA	0–12	8 ns/8 ns	±2A	Pair with 6 × TC6320 to form a 2-Channel 5-Level Pulser	7 × 7 mm 48-Lead LQFP, 7 × 7 mm 48-Lead QFN
MD1712	12	1.8	3.3	NA	0–12	8 ns/8 ns	±2A	Pair with 6 × TC6320 to form a 2-Channel 5-Level Pulser	7 × 7 mm 48-Lead LQFP, 7 × 7 mm 48-Lead QFN
MD1715	12	1.8	3.3	NA	0–12	6.5 ns/6.5 ns	±2A	Pair with 1 × TC8020 to form a 2-Channel 5-Level Pulser	6 × 6 mm 40-Lead QFN
MD1716	12	1.8	3.3	NA	0–12	6.5 ns/6.5 ns	±2A	Pair with 1 × TC8020 to form a 3-Channel 3-Level Pulser	6 × 6 mm 40-Lead QFN
MD1810	4	1.8	5	±5	0–12	6 ns/6 ns	±2A	Pair with 2 × TC6320 to form a 1-Channel 4-Level Pulser/2 Channel 2 Level Pulser/1 Channel 3 Level Pulser	4 × 4 mm 16-Lead QFN
MD1811	4	1.8	5	±5	0–12	6 ns/6 ns	±2A	Pair with 2 × TC6320 to form a 2-Channel 2-Level Pulser	4 × 4 mm 16-Lead QFN
MD1812	5	1.8	5	±5	0–12	6 ns/6 ns	±2A	Pair with 1 × TC6320 and 1 × TC2320 to form a 1-Channel 3-Level Pulser	4 × 4 mm 16-Lead QFN
MD1813	5	1.8	5	±5	0–12	6 ns/6 ns	±2A	Pair with 1 × TC6320 and 1 × TC2320 to form a 1-Channel 3-Level Pulser	4 × 4 mm 16-Lead QFN
MD1820	4	1.8	5	±5	0–12	7 ns/7 ns	±2A	Pair with 2 × TC6320 to form a 1-Channel 4-Level Pulser/2-Channel 2 Level Pulser/1 Channel 3 Level Pulser	4 × 4 mm 16-Lead QFN
MD1821	4	1.8	5	±5	0–12	7 ns/7 ns	±2A	Pair with 2 × TC6320 to form a 2-Channel 2-Level Pulser	4 × 4 mm 16-Lead QFN
MD1822	4	1.8	5	±5	0–12	7 ns/7 ns	±2A	Pair with 2 × TC6320 to form a 1-Channel 3Level Pulser	4 × 4 mm 16-Lead QFN

ULTRASOUND: Ultrasound TR Switches

Part #	# of Channels	Noise (per √Hz)	Features	Packages
MD0100	1/2	0.7 nV/√Hz	±100V Ultrasound T/R Switches	SOT-89, 4 × 4 8-pin DFN
MD0101	4	0.8 nV/√Hz	±100V Ultrasound T/R Switches with Clamp Diode	5 × 5 18-pin DFN
MD0105	4	0.8 nV/√Hz	±130V Ultrasound T/R Switches	5 × 5 18-pin DFN

ULTRASOUND: Arbitrary Waveform Generators

Part #	Output	Sampling Frequency	Features	Packages
MD2131	Push-Pull Source Drive	250 MHz	8-bit DAC, 48-step phase, PWM, 8-bit Apodization DAC	5 × 5 40-pin QFN
MD2134	Push-Pull Source Drive	250 MHz	8-bit DAC, 7-bit PAM, 16-Level	5 × 5 40-pin QFN

ULTRASOUND: Ultrasound Transmitters

Part #	Output Voltage (V)	Output Current (A)	Number of Channels	Features	Packages
HV748	±75	±1.25	4	4-Channel 2-Level RTZ	48-pin QFN 7 × 7 mm
HV7360	±100	±2.5	1 or 2	1-Channel 3-Level or 2-Channel 2-Level	22-pin BGA 5 × 7 mm
HV7361	±100	±2.5	1 or 2	1-Channel 3-Level or 2-Channel 2-Level with integrated T/R	22-pin BGA 5 × 7 mm
HV7355	150	±1.5	8	8-Channel Unipolar Active RTZ	48-pin QFN 7 × 7 mm
HV7350	±60	±1.0	8	8-Channel 3-Level	56-pin QFN 8 × 8 mm
HV7351	±70	±3.0	8	8-Channel 3-Level with Built-in Digital Beamformer	80-pin QFN 11 × 11 mm

Featured Analog Development Tools

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Thermal Management Products

MCP9600 Evaluation Board (ADM00665)

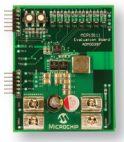
The MCP9600 Evaluation Board is used to digitize the Thermocouple EMF voltage to degree Celsius with ±1.5°C accuracy. You can easily evaluate all device features using a Type K thermocouple. The device also supports Types J, T, N, E, B, S and R. Each of these types are evaluated by replacing the Type K Thermocouple connector with the corresponding connectors (not included).

Thermocouple Reference Design (TMPSNSRD-TCPL1)

This reference design demonstrates how to instrument a thermocouple and accurately sense temperature over the entire thermocouple measurement range. This solution uses the MCP3421 18-bit Analog-to-Digital Converter (ADC) to measure voltage across the thermocouple.

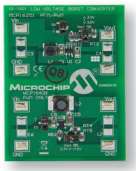
Power Management Products

MCP19111 Evaluation Board (ADM00397)



The MCP19111 is a digitally-enhanced PWM controller. It combines a pure-analog PWM controller with a supervisory microcontroller making it a fast, cost-effective and configurable power conversion solution. The MCP19111 is ideal for standard power conversion, LED drivers and battery charging applications. This board demonstrates how the MCP19111 device operates in a synchronous buck topology over a wide input voltage and load range.

MCP16251 and MCP1640B Synchronous Boost Converters Evaluation Board (ADM00458)



This board demonstrates the MCP16251/ MCP1640B in two boost-converter applications with multiple output voltages and was developed to help reduce product design cycle time. Three common output voltages can be selected: 2.0V, 3.3V and 5.0V.

MCP8025 TQFP BLDC Motor Driver Evaluation Board (ADM00600)

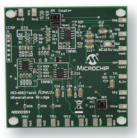
This board demonstrates our MCP8025 3-phase BLDC motor gate driver with power module used in a BLDC motor drive application. When used in conjunction with a microcontroller, the MCP8025 will provide the necessary drive signals for a 3-phase BLDC motor. The MCP8025 contains the high-side and low-side drivers for external N-channel MOSFETs. A dsPIC33EP256MC504 processor is used to supply the PWM inputs to the MCP8025 as well as handle the high-speed analog-to-digital conversion required for 50 kHz PWM operation. The MCP8025 UART interface is used to configure the MCP8025 device and to send fault information to the dsPIC® DSC.

Linear Products

MCP6V01 Thermocouple Auto-Zeroed Reference Design Board (MCP6V01RD-TCPL)

The MCP6V01 design board demonstrates how to use a different amplifier system to measure Electromotive Force (EMF) voltage at the cold junction of thermocouple to accurately measure temperature of the thermocouple bead. This can be done by using the MCP6V01 auto-zeroed op amp because of its ultra-low offset voltage (VOS) and high Common Mode Rejection Ratio (CMRR).

MCP6N11 and MCP6V2X Wheatstone Bridge Reference Design (ARD00354)



This board demonstrates the performance of the MCP6N11 instrumentation amplifier (INA) and a traditional three op amp INA using the MCP6V26 and MCP6V27 auto-zeroed op amps. The input signal comes from an RTD temperature sensor in a Wheatstone bridge. Real-world interference is added to the bridge's output to provide realistic performance comparisons. Data is gathered and displayed on a PC for ease of use.

MCP6421 EMIRR Evaluation Board (ADM00443)

The MCP6421 EMIRR Evaluation Board is intended to support the Electromagnetic Interference Rejection Ratio (EMIRR) measurement and to show the Electromagnetic Interference (EMI) rejection capability of the MCP6421 operational amplifier.

Mixed Signal Products

MCP37X3X-200 16-bit 200 Msps ADC VTLA Evaluation Board (ADM00505)

This board provides the opportunity to evaluate the performance of the MCP37X3X-200 device family. With the on-board MCP37D31-200 16-bit 200 Msps pipelined ADC, it allows you to evaluate the functionality of the 16-bit 200 Msps ADCs and the digital signal processing features. With the help of a compatible data capture card, the evaluation board can provide you with performance analysis features through the PC GUI.

PAC1921 High-Side Power and Current Monitor Evaluation Board (ADM00592)

The PAC1921 is a dedicated power monitoring device with a configurable analog output. This device is unique in that all power-related information is available on the 2-wire/I²C-compatible interface and power, current or voltage is available on the analog output. This evaluation board provides you with the means to exercise device functionality while connected either to target systems or while utilizing on-board sources.

Featured Analog Development Tools

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MCP39F511 Power Monitor Demonstration Board (ARM00667)

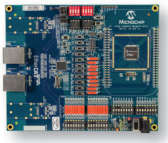
The MCP39F511 Power Monitor Demonstration Board is a fully functional single-phase power monitor and energy monitoring system. The system calculates and displays active power, reactice power, RMS current, RMS voltage, active energy (both import and export) and four quadrant reactive energy. The Power Monitor Utility Software enables you to easily experiment with all system configuration settings such as zero-cross detection, PWM output frequencies, event configurations and calibration setup.

Interface Products

UCS81003 Evaluation Board (ADM00561)

This board provides the ability to evaluate the features of the UCS81003 Automotive USB Port Power Controller with Charger Emulation. It allows the UCS81003 to be tested in different configurations by populating jumpers on specific header locations. The Evaluation Board contains the MCP2221 USB to I²C bridge, which allows communication via USB between the UCS81003 and the GUI running on the PC.

LAN9252 EtherCAT® Slave Controller Evaluation Kit with HBI PDI Interface (EVB-LAN9252-HBI)

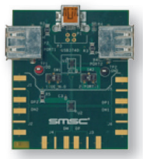


This kit is a standalone platform to development an EtherCAT slave device. It offers flexibility to explore different host bus interfaces such as 8-bit and 16-bit parallel bus, SPI and SQI™.

LAN874X 10/100 Ethernet Transceiver with EEE and Wake-On-LAN (EVB8740)

The EVB8740 is a PHY evaluation board for our LAN874X family, which integrates Energy Efficient Ethernet and Wake-on-LAN features. It interfaces to a MAC controller via a standard MII or RMII interface.

USB3740 Hi-Speed USB 2.0 2-Port Switch (EVB-USB3740)

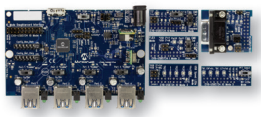


The EVB-USB3740 is used to evaluate our USB3740 USB 2.0 compliant 2-port switch. Some applications require a single USB port to be shared with other functions. The USB3740 is a small and simple 2-port switch providing system design flexibility.

UTC2000 Basic USB Type-C™ Controller Evaluation Kit (EVK-UTC2000)

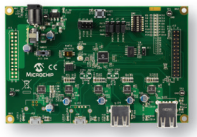
The EVK-UTC2000 is a complete kit to evaluate our UTC2000 basic USB-C controller. It includes a downstream-facing port dongle which can connect to any standard host, an upstream-facing port board to mimic a USB-C device, as well as a USB-C cable.

USB5734 USB 3.1 Gen1 Controller Hub Evaluation Board (EVB-USB5734)



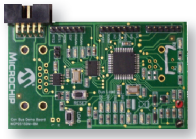
This board is a demonstration and evaluation platform that provides the necessary requirements and interface options for evaluating the USB5734 Smart Hub on a 4-layer RoHS-compliant Printed Circuit Board (PCB). This will allow you to gain an understanding of the product and accelerate integration into your design.

USB4604 USB 2.0 HSIC Hi-Speed 4-Port Hub Controller Evaluation Board (EVB-USB4604)



This board enables FlexConnect applications and allows access to digital pins used in I²C, GPIO and UART bridging. The EVB-USB4604 also contains an on-board SPI Flash allowing different revisions of the silicon to be evaluated on the same PCB.

MCP2515 CAN Bus Monitor Demo Board (MCP2515DM-BM)



The MCP2515 CAN Bus Monitor Demo board kit contains two identical boards that can be connected together to create a simple two-node Controller Area Network (CAN) bus, which can be controlled and/or monitored via the included PC interface. The board(s) can also be connected to an existing CAN bus.

USB to UART Converter Evaluation Board (MCP2200EV-VCP)

The MCP2200EV-VCP is a USB-to-RS232 development and evaluation board for the MCP2200 USB-to-UART device. The board allows for easy demonstration and evaluation of the MCP2200. The accompanying software allows the special device features to be configured and controlled. The board is powered from USB and has a test point associated with each GPIO pin. In addition, two of these pins are connected to LEDs which can be used to indicate USB-to-UART traffic when the associated pins are configured as TxLED and RxLED pins respectively.

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