



Analog and Interface Product Selector Guide

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

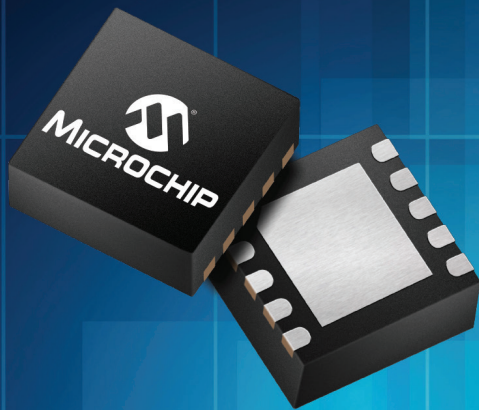


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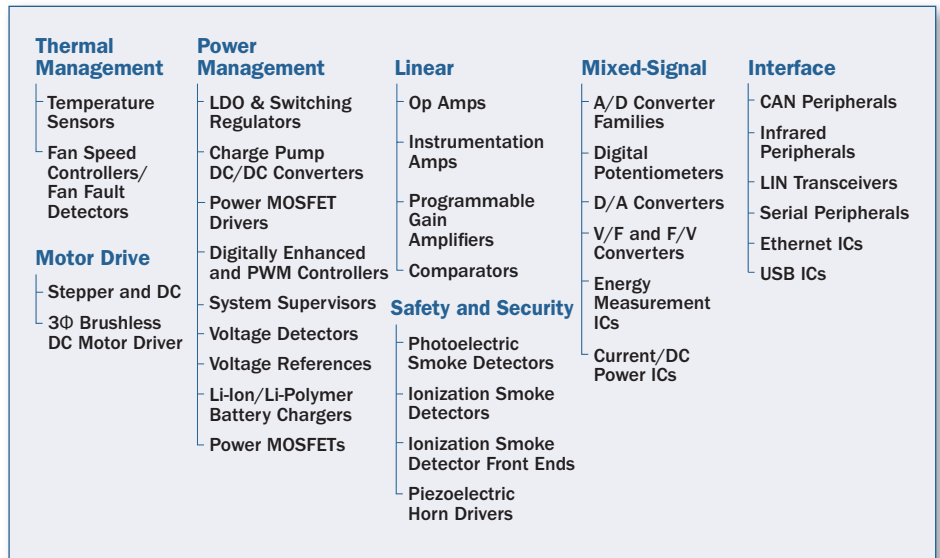
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THERMAL MANAGEMENT

THERMAL MANAGEMENT PRODUCTS: 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/I ² C™ 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/I ² C 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/I ² C 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/I ² C 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/I ² C 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 TSSOP, 8-pin 2 × 3 DFN, 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 TSSOP, 8-pin 2 × 3 DFN, 8-pin 2 × 3 TDFN

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.

Serial Output Temperature Sensors (Continued)							
Part #	Typical Accuracy (°C)	Maximum Accuracy @ 25°C (°C)	Maximum Temperature Range (°C)	Vcc Range (V)	Maximum Supply Current (µA)	Features	Packages
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/I ² C 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/I ² C 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/I ² C 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/I ² C Ambient with 2 Alerts	6-pin SOT

Serial Output Temperature Sensors with Remote Diode Monitors											
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
EMC1033	2	±1.0	±3	-40 to +125	1	2	-	3.0-3.6	50	Triple SMBus/I ² C™ 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C 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/I ² C 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/I ² C 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/I ² C 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/I ² C 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/I ² C 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/I ² C 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/I ² C 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor with Resistance 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/I ² C Sensor Resistance 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 PRODUCTS: 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 I ² C™ 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 I ² C 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 I ² C 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 PRODUCTS: 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 HW 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 PRODUCTS: 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	
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 DRIVER PRODUCTS: 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
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 DC 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 DC 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 DC 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 DC 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
MTD6505	3-Phase Brushless DC 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 #	Vcc Range (V)	Output Voltage (V)	Max. Load Current (mA)	Initial Accuracy (max.%)	Temperature Coefficient (ppm/°C)	Maximum Supply Current (µA @ 25°C)	Packages
MCP1525	2.7 to 5.5	2.5	±2	±1	50	100	3-pin TO-92, 3-pin SOT-23B
MCP1541	4.3 to 5.5	4.096	±2	±1	50	100	3-pin TO-92, 3-pin SOT-23B

POWER MANAGEMENT: Linear Regulators

Part #	Max. Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Junction Temperature Range (°C)	Typical Active Current (µA)	Typical Dropout Voltage @ Max. I _{out} (mV)	Typical Output Voltage Accuracy (%)	Features	Packages
50 mA to 250 mA Low-Dropout Linear Regulators									
TC2014	6.0	1.8, 2.7, 2.8, 3.0, 3.3	50	-40 to +125	55	45	±0.4	Ceramic output capacitor stable, Shutdown, Reference bypass input	5-pin SOT-23A
TC1014	6.0	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	50	-40 to +125	50	85	±0.5	Shutdown, Reference bypass input	5-pin SOT-23A
TC2054	6.0	1.8, 2.7, 2.8, 3.0, 3.3	50	-40 to +125	55	45	±0.4	Ceramic output capacitor stable, Shutdown, Error output	5-pin SOT-23A
TC1054	6.0	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	50	-40 to +125	50	85	±0.5	Shutdown, Error output	5-pin SOT-23A
TC1070	6.0	1.23 → V _{IN}	50	-40 to +125	50	85	-	Shutdown, Adjustable	5-pin SOT-23A
TC1072	6.0	2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	50	-40 to +125	50	85	±0.5	Shutdown, Reference bypass input, Error output	6-pin SOT-23A
TC1223	6.0	2.5, 2.7, 2.8, 3.0, 3.3, 3.6, 4.0, 5.0	50	-40 to +125	50	85	±0.5	Shutdown	5-pin SOT-23A
MCP1790	30	3.0, 3.3, 5.0	70	-40 to +125	70	500	±0.2	Ceramic output capacitor stable	3-pin SOT-223, 3-pin DDPK
MCP1791	30	3.0, 3.3, 5.0	70	-40 to +125	70	500	±0.2	Ceramic output capacitor stable, Shutdown, Power good	5-pin SOT-223, 5-pin DDPK
TC1016	6.0	1.8, 2.7, 2.8, 3.0	80	-40 to +125	50	150	±0.5	Ceramic output capacitor stable, Shutdown	5-pin SC-70, 5-pin SOT-23A
TC2015	6.0	1.8, 2.5, 2.6, 2.7, 2.8, 2.85, 3.0, 3.3, 5.0	100	-40 to +125	55	90	±0.4	Ceramic output capacitor stable, Shutdown, Reference bypass input	5-pin SOT-23A
TC1015	6.0	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	100	-40 to +125	50	180	±0.5	Shutdown, Reference bypass input	5-pin SOT-23A
TC2055	6.0	1.8, 2.7, 2.8, 3.0, 3.3	100	-40 to +125	55	90	±0.4	Ceramic output capacitor stable, Shutdown, Error output	5-pin SOT-23A
TC1055	6.0	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	100	-40 to +125	50	180	±0.5	Shutdown, Error output	5-pin SOT-23A
TC1071	6.0	1.23 → V _{IN}	100	-40 to +125	50	180	-	Shutdown, Adjustable	5-pin SOT-23A
TC1073	6.0	2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	100	-40 to +125	50	180	±0.5	Shutdown, Reference bypass input, Error output	6-pin SOT-23A
TC1224	6.0	2.5, 2.7, 2.8, 3.0, 3.3, 3.6, 4.0, 5.0	100	-40 to +125	50	180	±0.5	Shutdown	5-pin SOT-23A
TC1188	6.0	1.8, 2.8, 2.84, 3.15	120	-40 to +125	50	130	±0.5	Shutdown	5-pin SOT-23A
TC1189	6.0	1.8, 2.8, 2.84, 3.15	120	-40 to +125	50	130	±0.5	Shutdown	5-pin SOT-23A
TC2185	6.0	1.8, 2.7, 2.8, 3.0, 3.3	150	-40 to +125	55	140	±0.4	Ceramic output capacitor stable, Shutdown, Reference bypass input	5-pin SOT-23A
TC1185	6.0	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	150	-40 to +125	50	270	±0.5	Shutdown, Reference bypass input	5-pin SOT-23A
TC2186	6.0	1.8, 2.7, 2.8, 3.0, 3.3	150	-40 to +125	55	140	±0.4	Ceramic output capacitor stable, Shutdown, Error output	5-pin SOT-23A
TC1186	6.0	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	150	-40 to +125	50	270	±0.5	Shutdown, Error output	5-pin SOT-23A
TC1187	6.0	1.23 → V _{IN}	150	-40 to +125	50	270	-	Shutdown, Adjustable	5-pin SOT-23A
TC1017	6.0	1.8, 2.6, 2.7, 2.8, 2.85, 2.9, 3.3, 3.4	150	-40 to +125	53	285	±0.5	Ceramic output capacitor stable, Shutdown	5-pin SOT-23A, 5-pin SC-70
MCP1754	16	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	150	-40 to +125	56	300	±2	70 dB PSRR	5-pin SOT-23, 5-pin SOT-89, 5-pin SOT-223, 8-pin 2 × 3 TDFN
MCP1754S	16	1.8, 2.5, 2.7, 2.8, 2.85, 3.0, 3.3, 3.6, 4.0, 5.0	150	-40 to +125	56	300	±2	70 dB PSRR	3-pin SOT-23, 3-pin SOT-89, 3-pin SOT-223, 8-pin 2 × 3 TDFN

POWER MANAGEMENT: Linear Regulators (Continued)

Part #	Max. Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Junction Temperature Range (°C)	Typical Active Current (µA)	Typical Dropout Voltage @ Max. I _{out} (mV)	Typical Output Voltage Accuracy (%)	Features	Packages
50 mA to 250 mA Low-Dropout Linear Regulators (Continued)									
MCP1804	28	1.8 to 18	150	-40 to +85	50	1300	±2	Shutdown, High PSRR	5-pin SOT-23, 5-pin SOT-89, 3-pin SOT-89, 3-pin SOT-223
MCP1710	5.5	1.2, 1.8, 2.5, 3.3, 4.2	200	-40 to +85	0.02	200	-	20 nA active current	2 × 2 DFN
MCP1700	6.0	1.2, 1.8, 2.5, 3.0, 3.3, 5.0	250	-40 to +125	1.6	300	±0.4	1.0 µF ceramic cap stable, Short-circuit protection	3-pin TO-92, 3-pin SOT-23A, 3-pin SOT-89
MCP1702	13.2	1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 4.0, 5.0	250	-40 to +125	2	650	±0.4	Ceramic output capacitor stable, Ultra-low ground current, 13.2V V _{IN} max.	3-pin TO-92, 3-pin SOT-23A, 3-pin SOT-89
MCP1703	16	1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 4.0, 5.0	250	-40 to +125	2	650	±0.4	Ceramic output capacitor stable, Ultra-low ground current, 16V V _{IN} max.	3-pin SOT-23A, 3-pin SOT-89, 3-pin SOT-223
MCP1703A	16	1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 4.0, 5.0	250	-40 to +125	2	650	±0.4	Ceramic output capacitor stable, Ultra-low ground current	3-pin SOT-23A, 3-pin SOT-89, 3-pin SOT-223, 8-pin 2 × 3 DFN
300 mA Low-Dropout Linear Regulators									
TC1107	6.0	2.5, 2.7, 2.8, 3.0, 3.3, 5.0	300	-40 to +125	50	240	±0.5	Shutdown, Reference bypass input	8-pin MSOP, 8-pin SOIC
TC1108	6.0	2.5, 2.7, 2.8, 3.0, 3.3, 5.0	300	-40 to +125	50	240	±0.5		3-pin SOT-223
TC1173	6.0	2.5, 2.7, 2.8, 3.0, 3.3, 5.0	300	-40 to +125	50	240	±0.5	Shutdown, Reference bypass input, Error output	8-pin MSOP, 8-pin SOIC
TC1174	6.0	1.23 → V _{IN}	300	-40 to +125	50	240	-	Shutdown, Reference bypass input, Adjustable	8-pin MSOP, 8-pin SOIC
TC1269	6.0	2.5, 2.8, 3.0, 3.3, 5.0	300	-40 to +125	50	240	±0.5	Shutdown, Reference bypass input	8-pin MSOP
MCP1755	16	1.8V to 5.5V	300	-40 to +125	68	300	±2	High PSRR with PowerGood and Shutdown	5-pin SOT-23, 3-pin SOT-223, 8-pin 2 × 3 DFN
MCP1755S	16	1.8V to 5.5V	300	-40 to +125	68	300	±2	High PSRR with PowerGood and Shutdown	3-pin SOT-223, 8-pin 2 × 3 DFN
MCP1824	6.0	Fixed: 0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0 Adjustable: 0.8 to 5.0	300	-40 to +125	120	200	±0.5	Ceramic output capacitor stable, Shutdown, Power good	5-pin SOT-223, 5-pin SOT-23
MCP1824S	6.0	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	300	-40 to +125	120	200	±0.5	Ceramic output capacitor stable	3-pin SOT-223
500 mA to 800 mA Low-Dropout Linear Regulators									
TC1262	6.0	2.5, 2.8, 3.0, 3.3, 5.0	500	-40 to +125	80	350	±0.5	Overtemperature protection, Overcurrent protection	3-pin TO-220, 3-pin DPAK, 3-pin SOT-223
TC1263	6.0	2.5, 2.8, 3.0, 3.3, 5.0	500	-40 to +125	80	350	±0.5	Shutdown, Reference bypass input, Error output	8-pin SOIC, 5-pin TO-220, 5-pin DPAK
MCP1725	6.0	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5.0	500	-40 to +125	120	210	±0.5	Ceramic output capacitor stable, Shutdown, C _{DELAY} , Power good	8-pin 2 × 3 DFN, 8-pin SOIC
MCP1825	6.0	Fixed: 0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5 Adjustable: 0.8 to 5.0	500	-40 to +125	120	210	±0.5	Ceramic output capacitor stable, Shutdown, Power good	5-pin TO-220, 5-pin DPAK, 5-pin SOT-223
MCP1825S	6.0	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5	500	-40 to +125	120	210	±0.5	Ceramic output capacitor stable	3-pin TO-220, 3-pin DPAK, 3-pin SOT-223
TC1264	6.0	1.8, 2.5, 3.0, 3.3	800	-40 to +125	80	450	±0.5	Overtemperature protection, Overcurrent protection	3-pin TO-220, 3-pin DPAK, 3-pin SOT-223
TC1265	6.0	1.8, 2.5, 3.0, 3.3	800	-40 to +125	80	450	±0.5	Shutdown, Reference bypass input, Error output	8-pin SOIC, 5-pin TO-220, 5-pin DPAK
TC2117	6.0	1.8, 2.5, 3.0, 3.3	800	-40 to +125	80	600	±0.5	Overtemperature protection, Overcurrent protection	3-pin SOT-223, 3-pin DPAK

POWER MANAGEMENT: Linear Regulators (Continued)									
Part #	Max. Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Junction Temperature Range (°C)	Typical Active Current (µA)	Typical Dropout Voltage @ Max. Iout (mV)	Typical Output Voltage Accuracy (%)	Features	Packages
1A and Above Low-Dropout Linear Regulators									
MCP1726	6.0	Fixed: 0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5 Adjustable: 0.8 to 5.0	1000	-40 to +125	140	300	±0.4	Ceramic output capacitor stable, Shutdown, C _{DELAY} , Power good	8-pin 3 × 3 DFN, 8-pin SOIC
MCP1826	6.0	Fixed: 0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5 Adjustable: 0.8 to 5.0	1000	-40 to +125	140	300	±0.5	Ceramic output capacitor stable, Shutdown, Power good	5-pin TO-220, 5-pin DDPAK, 5-pin SOT-223
MCP1826S	6.0	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5	1000	-40 to +125	140	300	±0.5	Ceramic output capacitor stable	3-pin TO-220, 3-pin DDPAK, 3-pin SOT-223
MCP1727	6.0	Fixed: 0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5 Adjustable: 0.8 to 5.0	1500	-40 to +125	140	330	±0.5	Ceramic output capacitor stable, Shutdown, C _{DELAY} , Power good	8-pin 3 × 3 DFN, 8-pin SOIC
MCP1827	6.0	Fixed: 0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5 Adjustable: 0.8 to 5.0	1500	-40 to +125	140	330	±0.5	Ceramic output capacitor stable, Shutdown, Power good	5-pin DDPAK, 5-pin TO-220
MCP1827S	6.0	0.8, 1.2, 1.8, 2.5, 3.0, 3.3, 5	1500	-40 to +125	140	330	±0.5	Ceramic output capacitor stable	3-pin DDPAK, 3-pin TO-220
Application Specific Low-Dropout Linear Regulators									
TC1266	6.0	3.3	200	-5 to +70	230	200	±1.0	PCI compliant	8-pin SOIC, 8-pin MSOP
TC1267	6.0	3.3	400	-5 to +70	230	300	±1.0	PCI compliant	5-pin DDPAK
TC57	8	2.5, 3.0, 3.3	4,000 ⁽¹⁾	-40 to +85	50	100 ⁽¹⁾	±2.0	Shutdown, External transistor	5-pin SOT-23A
TC59	-10	-3.0, -5.0	100	-40 to +85	3	380	±0.5	Negative LDO	3-pin SOT-23A

Note 1: Depending on external transistor configuration.

POWER MANAGEMENT: Low-Dropout Regulator Combination Products									
Part #	Max. Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Junction Temperature Range (°C)	Typical Active Current (µA)	Typical Dropout Voltage @ Max. Iout (mV)	Typical Output Voltage Accuracy (%)	Features	Packages
TC1300 ⁽¹⁾	6.0	2.5, 2.7, 2.8, 2.85, 3.0, 3.3	300	-40 to +125	80	210	±0.5	Shutdown, Reference bypass input, LDO plus Reset output	8-pin MSOP
TC1301A ⁽¹⁾	6.0	LD01: 1.5-3.3 LD02: 1.5-3.3	LD01: 300 LD02: 150	-40 to +125	103	LD01: 104 LD02: 150	±0.5	Dual LDO plus Reset output, Shutdown, Reference bypass, Voltage detect	8-pin MSOP, 8-pin 3 × 3 DFN
TC1301B ⁽¹⁾	6.0	LD01: 1.5-3.3 LD02: 1.5-3.3	LD01: 300 LD02: 150	-40 to +125	114	LD01: 104 LD02: 150	±0.5	Dual LDO plus Reset, per channel output shutdown, Reference bypass	8-pin MSOP, 8-pin 3 × 3 DFN
TC1302A ⁽¹⁾	6.0	LD01: 1.5-3.3 LD02: 1.5-3.3	LD01: 300 LD02: 150	-40 to +125	103	LD01: 104 LD02: 150	±0.5	Dual LDO, Output shutdown reference bypass, Voltage detect	8-pin MSOP, 8-pin 3 × 3 DFN
TC1302B ⁽¹⁾	6.0	LD01: 1.5-3.3 LD02: 1.5-3.3	LD01: 300 LD02: 150	-40 to +125	114	LD01: 104 LD02: 150	±0.5	Dual LDO, per channel output shutdown, Reference bypass	8-pin MSOP, 8-pin 3 × 3 DFN
TC1307 ⁽¹⁾	6.0	1.8, 2.5, 2.8, 3.0	150 ⁽¹⁾	-40 to +125	220	200	±0.5	Quad LDO plus Reset output, Shutdown, Select Mode selectable output voltages	16-pin QSOP

Note 1: LDOs with shutdown (except Power Management Combination Products as indicated) have typical shutdown currents of 0.05 mA.

POWER MANAGEMENT: Switching Regulators										
Part #	Description	Input Voltage Range (V)	Output Voltage (V)	Operating Temperature Range (°C)	Control Scheme	Switching Frequency (kHz)	Typical Active Current (µA)	Output Current (mA)	Features	Packages
MCP1601	Synchronous Buck Regulator	2.7 to 5.5	0.9V to V _{IN}	-40 to +85	PFM/PWM/LDO	750	825 (PWM) 125 (PFM)	500	UVLO, Auto-switching, LDO	8-pin MSOP
MCP1602	Synchronous Buck Regulator	2.7 to 5.5	0.8 to 4.5	-40 to +85	PFM/PWM	2000	35	500	PFM, PWM auto-switching, UVLO, Soft start, Power good indicator	10-pin MSOP, 10-pin 3 × 3 DFN
MCP1603	Synchronous Buck Regulator	2.7 to 5.5	0.8 to 4.0	-40 to +85	PFM/PWM	2000	45	500	Overtemperature and Overcurrent protection	5-pin TSOT-23, 8-pin 2 × 3 DFN
MCP1612	Synchronous Buck Regulator	2.7 to 5.5	0.8 to 5.5	-40 to +85	Constant frequency, PWM	1400	5000	1000	Overall efficiency > 94%, Soft start, Overtemperature and Overcurrent protection	8-pin MSOP, 8-pin 3 × 3 DFN
MCP1623/4	Synchronous Boost Regulator	0.65 to 6	2.0 to 5.5	-40 to +85	PWM or PFM/PFM	500	19	175	Integrated synchronous boost regulator, 0.65V start-up voltage, Soft start, True load disconnect	6-pin SOT-23, 8-pin 2 × 3 DFN

POWER MANAGEMENT: Switching Regulators (Continued)

Part #	Description	Input Voltage Range (V)	Output Voltage (V)	Operating Temperature Range (°C)	Control Scheme	Switching Frequency (kHz)	Typical Active Current (µA)	Output Current (mA)	Features	Packages
MCP16251	Low Quiscent Current Synchronous Boost Regulator	0.82 to 5.5	1.8 to 5.5	-40 to +85	PFM/PWM	500	4	250	True Load Disconnect Shutdown	6-pin SOT-23, 8-pin 2 × 3 DFN
MCP16252	Low Quiscent Current Synchronous Boost Regulator	0.82 to 5.5	1.8 to 5.5	-40 to +85	PFM/PWM	500	4	250	Input to Output Bypass Shutdown	6-pin SOT-23, 8-pin 2 × 3 DFN
MCP1640/B/C/D	Synchronous Boost Regulator	0.65 to 6	2.0 to 5.5	-40 to +85	PWM or PWM/PFM	500	19	350	Integrated synchronous boost regulator, 0.65V start-up voltage, Soft start, True load disconnect or input-to-output bypass option	6-pin SOT-23, 8-pin 2 × 3 DFN
MCP1643	Synchronous Boost LED Driver	0.5	0.6 to 5.0	-40 to +85	PWM	1000	-	550	True Load Disconnect, Shutdown	8-pin 2 × 3 DFN, 8-pin MSOP
MCP1650	Step-up DC/DC Controller	2.7 to 5.5	2.5 to ext. tx limited	-40 to +125	Constant frequency	750	120	560/440	2 duty cycles for min. and max. loads, Shutdown control, UVLO, Soft start	8-pin MSOP
MCP1651	Step-up DC/DC Controller	2.7 to 5.5	2.5 to ext. tx limited	-40 to +125	Constant frequency, 2 fixed DC	750	120	560/440	2 duty cycles for min. and max. loads, Shutdown control, low battery detect, UVLO, Soft start	8-pin MSOP
MCP1652	Step-up DC/DC Controller	2.7 to 5.5	2.5 to ext. tx limited	-40 to +125	Constant frequency, 2 fixed DC	750	120	560/440	2 duty cycles for min. and max. loads, Shutdown control, Power good indicator, UVLO, Soft start	8-pin MSOP
MCP1653	Step-up DC/DC Controller	2.7 to 5.5	2.5 to ext. tx limited	-40 to +125	Constant frequency, 2 fixed DC	750	120	560/440	2 duty cycles for min. and max. loads, Shutdown control, Low battery detect, Power good indicator, UVLO, Soft start	10-pin MSOP
MCP16301	30V Input Buck Regulator	4.0 to 30	2.0 to 15	-40 to +85	PWM	500	2000	600	Integrated N-channel, UVLO, Soft start, Overtemperature protection	SOT23-6
MCP16321	Synchronous Buck Regulator	6 to 24	0.9 to 5	-40 to +125	PWM/PFM	1000	2300	1000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power good pin	16-pin 3 × 3 QFN
MCP16322	Synchronous Buck Regulator	6 to 24	0.9 to 5	-40 to +125	PWM/PFM	1000	2300	2000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power good pin	16-pin 3 × 3 QFN
MCP16323	Synchronous Buck Regulator	6 to 18	0.9 to 5	-40 to +125	PWM/PFM	1000	2300	3000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power good pin	16-pin 3 × 3 QFN
TC105	Step-down DC/DC Controller	2.2 to 10	3.0, 3.3, 5.0	-40 to +85	PFM/PWM	300	57	1,000	Low power shutdown mod	5-pin SOT-23A
TC115	Step-up DC/DC Regulator	0.9 to 10	3.0, 3.3, 5.0	-40 to +85	PFM/PWM	100	80	140	Feedback voltage sensing, Low power shutdown mode	5-pin SOT-89
TC110	Step-up DC/DC Controller	2.0 to 10	3.0, 3.3, 5.0	-40 to +85	PFM/PWM	100/300	50/120	300	Soft start, Low power shutdown mode	5-pin SOT-23A

POWER MANAGEMENT: Switching Regulators Combination Products

TC1303	Synchronous Buck Regulator, LDO w/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: PWM Controllers

Part #	Description	Input Voltage Range (V)	Operating Temp. Range (°C)	Switching Frequency (kHz)	Typical Active Current (mA)	Features	Packages
MCP1630	Current mode, high-speed PWM to use with PIC® MCUs	3.0 to 5.5	-40 to +125	1000	2.8	UVLO, Short circuit and Overtemperature protection, Integrated MOSFET driver	8-pin MSOP, 8-pin 2 × 3 DFN
MCP1630V	Voltage mode, high-speed PWM to use with PIC MCUs	3.0 to 5.5	-40 to +125	1000	2.8	UVLO, Short circuit and Overtemperature protection, Integrated MOSFET driver	8-pin MSOP, 8-pin 2 × 3 DFN
MCP1631	Current mode, high-speed PWM to use with PIC MCUs	3.0 to 5.5	-40 to +125	2000	3.7	UVLO, Integrated error, Current and voltage sense amplifiers, Overvoltage comparator and MOSFET driver	20-pin SSOP, 20-pin TSSOP, 20-pin 4 × 4 QFN
MCP1631HV	Current mode, high-speed PWM to use with PIC MCUs	3.5 to 16	-40 to +125	2000	3.7	Integrated 16V LDO, UVLO, Integrated error, Current and voltage sense amplifiers, Overvoltage comparator and MOSFET driver	20-pin SSOP, 20-pin TSSOP
MCP1631V	Voltage mode, high-speed PWM to use with PIC MCUs	3.0 to 5.5	-40 to +125	2000	3.7	UVLO, Integrated error, Current and voltage sense amplifiers, Overvoltage comparator and MOSFET driver	20-pin SSOP, 20-pin TSSOP, 20-pin 4 × 4 QFN
MCP1631VHV	Voltage mode, high-speed PWM to use with PIC MCUs	3.5 to 16	-40 to +125	2000	3.7	Integrated 16V LDO, UVLO, Integrated error, Current and voltage sense amplifiers, Overvoltage comparator and MOSFET driver	20-pin SSOP, 20-pin TSSOP
MCP19035	Synchronous Buck PWM Controller with Integrated MOSFET Driver Family	4.5 to 30	-40 to +125	300/600	6	Multiple dead-time options for low-FOM MOSFET compatibility, Integrated current sense capability for short circuit protection, Integrated synchronous MOSFET driver and linear voltage regulator	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	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	28-pin 5 × 5 QFN

POWER MANAGEMENT: Charge Pump DC-to-DC Converters

Part #	Input Voltage Range (V)	Output Voltage (V)	Operating Temp. Range (°C)	Maximum Input Current ⁽¹⁾ (µA)	Typical Active Output Current (mA)	Features	Packages
Inverting or Doubling Charge Pumps							
TC1044S	1.5 to 12	V _{OUT} = -V _{IN} or V _{OUT} = 2 V _{IN}	-40 to +85	160	20	85 kHz oscillator, Boost mode	8-pin PDIP, 8-pin SOIC
TC7660	1.5 to 10	V _{OUT} = -V _{IN} or V _{OUT} = 2 V _{IN}	-40 to +85	180	20	10 kHz oscillator	8-pin PDIP, 8-pin SOIC
TC7660H	1.5 to 10	V _{OUT} = -V _{IN} or V _{OUT} = 2 V _{IN}	-40 to +85	1,000	20	120 kHz oscillator	8-pin PDIP, 8-pin SOIC
TC7660S	1.5 to 12	V _{OUT} = -V _{IN} or V _{OUT} = 2 V _{IN}	-40 to +85	160	20	45 kHz oscillator, Boost mode	8-pin PDIP, 8-pin SOIC
TC7662B	1.5 to 15	V _{OUT} = -V _{IN} or V _{OUT} = 2 V _{IN}	-40 to +85	180	20	35 kHz oscillator, Boost mode	8-pin PDIP, 8-pin SOIC
TC1240	2.5 to 4.0	V _{OUT} = 2 V _{IN}	-40 to +85	900	40	Shutdown, 160 kHz oscillator	6-pin SOT-23A
TC1240A	2.5 to 5.5	V _{OUT} = 2 V _{IN}	-40 to +85	900	40	Shutdown, 160 kHz oscillator	6-pin SOT-23A
TC7662A	3.0 to 18	V _{OUT} = -V _{IN} or V _{OUT} = 2 V _{IN}	-40 to +85	200	40	12 kHz oscillator	8-pin PDIP, 8-pin SOIC
TC962	3.0 to 18	V _{OUT} = -V _{IN} or V _{OUT} = 2 V _{IN}	-40 to +85	200	80	Selectable 12 kHz or 24 kHz oscillator	8-pin PDIP, 16-pin SOIC
Inverting and Doubling Charge Pumps							
TC682	2.4 to 5.5	V _{OUT} = -2 V _{IN}	-40 to +85	400	10	12 kHz oscillator	8-pin PDIP, 8-pin SOIC
Regulated Charge Pumps							
MCP1252	2.1/2.7 to 5.5 2.0 to 5.5	Selectable 3.3V or 5.0V or Adjustable 1.5V to 5.5V	-40 to +85	120	120 mA for V _{IN} > 3.0V	Power good output, 650 kHz oscillator	8-pin MSOP
MCP1253	2.1/2.7 to 5.5 2.0 to 5.5	Selectable 3.3V or 5.0V or Adjustable 1.5V to 5.5V	-40 to +85	120	120 mA for V _{IN} > 3.0V	Power good output, 1 MHz oscillator	8-pin MSOP
MCP1256	1.8 to 3.6	3.3	-40 to +85	100	100	Power good, Sleep mode	10-pin MSOP, 10-pin 3 × 3 DFN
MCP1257	1.8 to 3.6	3.3	-40 to +85	100	100	Sleep mode, Low battery indication	10-pin MSOP, 10-pin 3 × 3 DFN
MCP1258	1.8 to 3.6	3.3	-40 to +85	100	100	Power good output, Input/output bypass	10-pin MSOP, 10-pin 3 × 3 DFN
MCP1259	1.8 to 3.6	3.3	-40 to +85	100	100	Low battery indication, Input/output bypass	10-pin MSOP, 10-pin 3 × 3 DFN

Note 1: Measured at V_{DD} = 5.0V at 25°C and no load.

POWER MANAGEMENT: CPU/System Supervisors

Part #	V _{CC} Range (V)	Operating Temp. Range (°C)	Nominal Reset Voltage (V)	Reset Type	Output	Typical Reset Pulse Width (ms)	Typical Supply Current (µA)	Additional Features	Packages	Bond Options
MCP102	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63, 2.32, 1.9	Active-Low	CMOS Push-Pull	120	1		3-pin SOT-23B, 3-pin SC-70, 3-pin TO-92	N/A
MCP103	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63, 2.32, 1.9	Active-Low	CMOS Push-Pull	120	1	Max809 Pinout	3-pin SOT-23B, 3-pin SC-70, 3-pin TO-92	N/A
MCP121	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63, 2.32, 1.9	Active-Low	Open-Drain	120	1		3-pin SOT-23B, 3-pin SC-70, 3-pin TO-92	N/A
MCP131	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63, 2.32, 1.9	Active-Low	Open-Drain	120	1	100 kΩ Internal Pull-up Resistor	3-pin SOT-23B, 3-pin SC-70, 3-pin TO-92	N/A
MCP1316	1.0 to 5.5	-40 to +125	4.6, 2.9 ⁽¹⁾	Active-Low	CMOS Push-Pull	200	5	Watchdog Input (WDI), Time-out = 1.6 sec., Manual Reset	5-pin SOT-23	N/A
MCP1317	1.0 to 5.5	-40 to +125	4.6, 2.9 ⁽¹⁾	Active-High	CMOS Push-Pull	200	5	Watchdog Input (WDI), Time-out = 1.6 sec., Manual Reset	5-pin SOT-23	N/A
MCP1318	1.0 to 5.5	-40 to +125	4.6, 2.9 ⁽¹⁾	Active-Low/High	CMOS Push-Pull	200	5	Watchdog Input (WDI), Time-out = 1.6 sec.	5-pin SOT-23	N/A
MCP1319	1.0 to 5.5	-40 to +125	4.6, 2.9 ⁽¹⁾	Active-Low/High	CMOS Push-Pull	200	1	Manual Reset	5-pin SOT-23	N/A
MCP1320	1.0 to 5.5	-40 to +125	4.6, 2.9 ⁽¹⁾	Active-Low	Open-Drain	200	5	Watchdog Input (WDI), Time-out = 1.6 sec., Manual Reset	5-pin SOT-23	N/A

POWER MANAGEMENT: CPU/System Supervisors (Continued)

Part #	V _{cc} Range (V)	Operating Temp. Range (°C)	Nominal Reset Voltage (V)	Reset Type	Output	Typical Reset Pulse Width (ms)	Typical Supply Current (µA)	Additional Features	Packages	Bond Options
MCP1321	1.0 to 5.5	-40 to +125	4.6, 2.9 ⁽¹⁾	Active-Low	Open-Drain/ CMOS Push-Pull	200	5	Watchdog Input (WDI), Time-out = 1.6 sec., Manual Reset (Active-Low Open-Drain, Active-High Push-Pull)	5-pin SOT-23	N/A
TC1270A	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63	Active-Low	CMOS Push-Pull	280	7	Manual Reset	4-pin SOT-143, 5-pin SOT-23	N/A
TC1271A	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63	Active-High	CMOS Push-Pull	280	7	Manual Reset	4-pin SOT-143, 5-pin SOT-23	N/A
TC1270AN	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63	Active-Low	Open-Drain	0	7	Manual Reset	4-pin SOT-143, 5-pin SOT-23	N/A
TCM809	1.2 to 5.5	-40 to +85	4.63, 4.38, 4.00, 3.08, 2.93, 2.63, 2.32	Active-Low	CMOS Push-Pull	240	12		3-pin SOT-23B, 3-pin SC-70	N/A
TCM810	1.2 to 5.5	-40 to +85	4.63, 4.38, 4.00, 3.08, 2.93, 2.63, 2.32	Active-High	CMOS Push-Pull	240	12		3-pin SOT-23B, 3-pin SC-70	N/A
MCP100	1.0 to 5.5	-40 to +85	4.72, 4.62, 4.47, 4.37, 3.075, 2.92, 2.62	Active-Low	CMOS Push-Pull	350	45		3-pin TO-92, 3-pin SOT-23B	D, H
MCP809	1.0 to 5.5	-40 to +85	4.72, 4.62, 4.47, 4.37, 3.075, 2.92, 2.62	Active-Low	CMOS Push-Pull	350	45		3-pin SOT-23B	N/A
MCP101	1.0 to 5.5	-40 to +85	4.72, 4.62, 4.47, 4.37, 3.075, 2.92, 2.62	Active-High	CMOS Push-Pull	350	45		3-pin TO-92, 3-pin SOT-23B	D, H
MCP810	1.0 to 5.5	-40 to +85	4.72, 4.62, 4.47, 4.37, 3.075, 2.92, 2.62	Active-High	CMOS Push-Pull	350	45		3-pin SOT-23B	N/A
MCP120	1.0 to 5.5	-40 to +85	4.72, 4.62, 4.47, 4.37, 3.075, 2.92, 2.62	Active-Low	Open-Drain	350	45		3-pin TO-92, 3-pin SOT-23, 8-pin SOIC	D, G, H
MCP130	1.0 to 5.5	-40 to +85	4.72, 4.62, 4.47, 4.37, 3.075, 2.92, 2.62	Active-Low	Open-Drain w/5 kOhm Pull-up	350	45		3-pin TO-92, 3-pin SOT-23, 8-pin SOIC	D, F, H
TC1232	4.5 to 5.5	-40 to +85	4.62, 4.37	Active-Low/High	Open-Drain	610	50	Watchdog Timer	8-pin PDIP, 8-pin SOIC, 16-pin SOIC	N/A
TC32M	4.5 to 5.5	-40 to +85	4.5	Active-Low	Open-Drain	700	50	Watchdog Timer	3-pin TO-92, 3-pin SOT-223	N/A

Note 1: Other reset voltage options available: 2.0V to 4.7V in 100 mV increments. Contact local Microchip sales office.

POWER MANAGEMENT: Voltage Detectors

Part #	V _{cc} Range (V)	Operating Temp. Range (°C)	Nominal Reset Voltage (V)	Reset Type	Output	Minimum Reset Pulse Width (ms)	Typical Supply Current (µA)	Features	Packages
MCP111	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63, 2.32, 1.90	Active-Low	Open-Drain	–	1		3-pin SOT-23B, 3-pin TO-92, 3-pin SC-70, 3-pin SOT-89
MCP112	1.0 to 5.5	-40 to +125	4.63, 4.38, 3.08, 2.93, 2.63, 2.32, 1.90	Active-Low	CMOS Push-Pull	–	1		3-pin SOT-23B, 3-pin TO-92, 3-pin SC-70, 3-pin SOT-89
TC52	1.5 to 10	-40 to +85	4.5/2.7, 3.0/2.7	Active-Low	Open-Drain	–	2	Dual channel	5-pin SOT-23A
TC54	0.7 to 10	-40 to +85	4.3, 4.2, 3.0, 2.9, 2.7, 2.1, 1.4	Active-Low	CMOS Push-Pull or Open-Drain	–	1		3-pin SOT-23A, 3-pin SOT-89, 3-pin TO-92

POWER MANAGEMENT: Power MOSFET Drivers

Part #	Configuration	Operating Temp. Range (°C)	Peak Output Current (A)	Output Resistance (R _H /R _L) (Max. Ω @ 25°C)	Maximum Supply Voltage (V)	Input/Output Delay (to1, to2) ⁽¹⁾ (ns)	Packages
Low-Side Drivers, 0.5A to 1.2A Peak Output Current							
MCP1401	Single, Inverting	-40 to +125	0.5	18/16	18	40/40	5-pin SOT-23
MCP1402	Single, Non-inverting	-40 to +125	0.5	18/16	18	40/40	5-pin SOT-23
TC1410	Single, Inverting	-40 to +85	0.5	22/22	16	30/30	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC1410N	Single, Non-inverting	-40 to +85	0.5	22/22	16	30/30	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC1411	Single, Inverting	-40 to +85	1.0	11/11	16	30/30	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC1411N	Single, Non-inverting	-40 to +85	1.0	11/11	16	30/30	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC1426	Dual, Inverting	0 to +70	1.2	18/18	16	75/75	8-pin PDIP, 8-pin SOIC

Note 1: to1 = delay time from input low-to-high transition to output transition. to2 = delay time from input high-to-low transition to output transition.

POWER MANAGEMENT: Power MOSFET Drivers (Continued)

Part #	Configuration	Operating Temp. Range (°C)	Peak Output Current (A)	Output Resistance (R _H /R _L) (Max. W @ 25 °C)	Maximum Supply Voltage (V)	Input/Output Delay (t ₀₁ , t ₀₂) ⁽¹⁾ (ns)	Packages
Low-Side Drivers, 0.5A to 1.2A Peak Output Current (Continued)							
TC1427	Dual, Non-inverting	0 to +70	1.2	18/18	16	75/75	8-pin PDIP, 8-pin SOIC
TC1428	Dual, Inverting and Non-inverting	0 to +70	1.2	18/18	16	75/75	8-pin PDIP, 8-pin SOIC
TC4467	Quad, Inverting	-40 to +85	1.2	15/15	18	40/40	14-pin PDIP, 16-pin SOIC (W)
TC4468	Quad, Non-inverting	-40 to +85	1.2	15/15	18	40/40	14-pin PDIP, 16-pin SOIC (W)
TC4469	Quad, Non-inverting	-40 to +85	1.2	15/15	18	40/40	14-pin PDIP, 16-pin SOIC (W)
Low-Side Drivers, 1.5A Peak Output Current							
MCP1415	Single, Inverting	-40 to +125	1.5	7.5/5.5	18	50/55	5-pin SOT-23
MCP1416	Single, Non-inverting	-40 to +125	1.5	7.5/5.5	18	50/55	5-pin SOT-23
TC4403	Single, Non-inverting Floating Load Driver	-40 to +85	1.5	5/5	18	33/38	8-pin PDIP
TC4404	Dual, Inverting	-40 to +85	1.5	10/10	18	15/32	8-pin PDIP, 8-pin SOIC
TC4405	Dual, Non-inverting	-40 to +85	1.5	10/10	18	15/32	8-pin PDIP, 8-pin SOIC
TC4426A	Dual, Inverting	-40 to +125	1.5	9/9	18	30/30	8-pin PDIP, 8-pin SOIC, 8-pin DFN
TC4427A	Dual, Non-inverting	-40 to +125	1.5	9/9	18	30/30	8-pin PDIP, 8-pin SOIC, 8-pin DFN
TC4428A	Dual, Inverting and Non-inverting	-40 to +125	1.5	9/9	18	30/30	8-pin PDIP, 8-pin SOIC, 8-pin DFN
TC1412	Single, Inverting	-40 to +85	2	6/6	16	35/35	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC1412N	Single, Non-inverting	-40 to +85	2	6/6	16	35/35	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP14E6	Dual, Inverting	-40 to +125	2	2.2/2.8	18	45/45	8-pin PDIP, 8-pin SOIC, 8-pin DFN
MCP14E7	Dual, Non-inverting	-40 to +125	2	2.2/2.8	18	45/45	8-pin PDIP, 8-pin SOIC, 8-pin DFN
MCP14E8	Dual, Inverting and Non-inverting	-40 to +125	2	2.2/2.8	18	45/45	8-pin PDIP, 8-pin SOIC, 8-pin DFN
MCP14E9	Dual, Inverting	-40 to +125	3	2.2/2.8	18	75/75	8-pin PDIP, 8-pin SOIC, 8-pin DFN
MCP14E10	Dual, Non-inverting	-40 to +125	3	2.2/2.8	18	75/75	8-pin PDIP, 8-pin SOIC, 8-pin DFN
MCP14E11	Dual, Inverting and Non-inverting	-40 to +125	3	2.2/2.8	18	75/75	8-pin PDIP, 8-pin SOIC, 8-pin DFN
Low-Side Drivers, 2.0A to 12.0A Peak Output Current							
TC1413	Single, Inverting	-40 to +85	3	4/4	16	35/35	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC1413N	Single, Non-inverting	-40 to +85	3	4/4	16	35/35	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
TC4423A	Dual, Inverting	-40 to +125	3	3 (typ)/4 (typ)	18	40 (typ)/40 (typ)	8-pin PDIP, 8-pin SOIC, 8-pin DFN
TC4424A	Dual, Non-inverting	-40 to +125	3	3 (typ)/4 (typ)	18	40 (typ)/40 (typ)	8-pin PDIP, 8-pin SOIC, 8-pin DFN
TC4425A	Dual, Inverting and Non-inverting	-40 to +125	3	3 (typ)/4 (typ)	18	40 (typ)/40 (typ)	8-pin PDIP, 8-pin SOIC, 8-pin DFN
MCP14E3	Dual, Inverting	-40 to +125	4.0	3.5/3.0	18	55/55	8-pin PDIP, 8-pin SOIC, 8-pin 6 × 5 DFN
MCP14E4	Dual, Non-inverting	-40 to +125	4.0	3.5/3.0	18	55/55	8-pin PDIP, 8-pin SOIC, 8-pin 6 × 5 DFN
MCP14E5	Dual, Inverting and Non-inverting	-40 to +125	4.0	3.5/3.0	18	55/55	8-pin PDIP, 8-pin SOIC, 8-pin 6 × 5 DFN
MCP1403	Dual, Inverting	-40 to +125	4.5	3/3.5	18	48/48	8-pin PDIP, 8-pin SOIC, 8-pin 6 × 5 DFN, 16-pin SOIC
MCP1404	Dual, Non-inverting	-40 to +125	4.5	3/3.5	18	48/48	8-pin PDIP, 8-pin SOIC, 8-pin 6 × 5 DFN, 16-pin SOIC
MCP1405	Dual, Inverting and Non-inverting	-40 to +125	4.5	3/3.5	18	48/48	8-pin PDIP, 8-pin SOIC, 8-pin 6 × 5 DFN, 16-pin SOIC
MCP1406	Single, Inverting	-40 to +125	6	1.8 (typ)/2.0 (typ)	18	30/30	5-pin TO-220, 8-pin PDIP, 8-pin 6 × 5 DFN, 8-pin SOIC
MCP1407	Single, Non-inverting	-40 to +125	6	1.8 (typ)/2.0 (typ)	18	30/30	5-pin TO-220, 8-pin PDIP, 8-pin 6 × 5 DFN, 8-pin SOIC

Note 1: t₀₁ = delay time from input low-to-high transition to output transition. t₀₂ = delay time from input high-to-low transition to output transition.

POWER MANAGEMENT: Power MOSFET Drivers (Continued)

Part #	Configuration	Operating Temperature Range (°C)	Peak Output Current (A)	Output Resistance (R _H /R _L) (Max. Ω @ 25°C)	Maximum Supply Voltage (V)	Input/Output Delay (t ₀₁ , t ₀₂) ⁽¹⁾ (ns)	Packages
Low-Side Drivers, 2.0A to 12.0A Peak Output Current (Continued)							
TC429	Single, Inverting	-40 to +85	6	2.5/2.5	18	53/60	8-pin PDIP, 8-pin DFN, 8-pin SOIC
TC4421A	Single, Inverting	-40 to +125	9	1.25 (typ)/1.5	18	38/42	8-pin PDIP, 8-pin SOIC, 5-pin TO-220, 8-pin 6 × 5 DFN
TC4422A	Single, Non-inverting	-40 to +125	9	1.25 (typ)/1.5	18	38/42	8-pin PDIP, 8-pin SOIC, 5-pin TO-220, 8-pin 6 × 5 DFN
TC4451	Single, Inverting	-40 to +125	12	0.6 (typ)/1.5	18	15/15	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN, 5-pin TO-220, 5-pin DDPACK
TC4452	Single, Non-inverting	-40 to +125	12	0.6 (typ)/1.5	18	15/15	8-pin SOIC, 8-pin PDIP, 8-pin 6 × 5 DFN, 5-pin TO-220, 5-pin DDPACK
High-Side/Low-Side Drivers							
TC4626	Single, Inverting	-40 to +85	1.5	15/10	6	35/45	8-pin PDIP, 16-pin SOIC (W)
TC4627	Single, Non-inverting	-40 to +85	1.5	15/10	6	35/45	8-pin PDIP, 16-pin SOIC (W)
TC4431	Single, Inverting	-40 to +85	1.5	10/10	30	62/78	8-pin PDIP, 8-pin SOIC
TC4432	Single, Non-inverting	-40 to +85	1.5	10/10	30	62/78	8-pin PDIP, 8-pin SOIC
Synchronous Buck High-Side Drivers							
MCP14628	Dual, Non-inverting	-40 to +85	2	2.5/2.5	5 (V _{DD}), 36 (Boot Pin)	18/20	8-pin SOIC, 8-pin 3 × 3 DFN
MCP14700	Dual, Non-inverting	-40 to +125	2	2.5/2.5	5 (V _{DD}), 36 (Boot Pin)	25/25	8-pin SOIC, 8-pin 3 × 3 DFN

Note 1: t₀₁ = delay time from input low-to-high transition to output transition. t₀₂ = delay time from input high-to-low transition to output transition.

POWER MANAGEMENT: Power MOSFETs

Part #	V _{ds} (V)	Configuration	Polarity	R _{ds (on)} @ 4.5V (mΩ, Max.)	R _{ds (on)} @ 10V (mΩ, Max.)	Q _g @ 4.5V (nC, Max.)	I _d (A, Max. @ 25°C, T _{case})	V _{gs} (th) (V, Min.)	Q _{gd} (nC, Typ.)	R _g (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	V _{cc} 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

POWER MANAGEMENT: Battery Chargers (Continued)

Part #	Mode	Cell Type	# of Cells	V _{CC} Range (V)	Cell Voltage (V)	Maximum Charging Current (mA)	Max. Voltage Regulation (%)	Int/Ext FET	Features	Packages
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

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/√Hz)	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
 Note 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/√Hz)	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
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
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
MCP6241	1	550 kHz	ko50	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
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
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

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
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
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
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)
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
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

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
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
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
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
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

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

Note 1: Values are typical at 1 kHz
Note 2: Values are typical at 10 kHz
Note 3: Values are typical at 1 MHz

LINEAR: Zero-Drift Operational Amplifiers

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
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 SOT-70 ^(U)
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 SOT-70 ^(U)
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
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

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, 8 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, 8 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, 8 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, 8 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, 8 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, 8 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, 8 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	GBWP	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 kHz	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

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

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 ² C™	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 ² C	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 (μ A)	Typical INL (ppm)	Temperature Range ($^{\circ}$ C)	Features	Packages
MCP3421	18 to 12	4 to 240	1 Diff	I ² C™	2.7 to 5.5	155	10	-40 to +125	PGA, V _{REF}	6-pin SOT-23A
MCP3422	18 to 12	4 to 240	2 Diff	I ² C	2.7 to 5.5	145	10	-40 to +125	PGA, V _{REF}	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP3423	18 to 12	4 to 240	2 Diff	I ² C	2.7 to 5.5	145	10	-40 to +125	PGA, V _{REF} , Selectable I ² C addressing	10-pin MSOP, 10-pin 3 × 3 DFN
MCP3424	18 to 12	4 to 240	4 Diff	I ² C	2.7 to 5.5	145	10	-40 to +125	PGA, V _{REF} , Selectable I ² C addressing	14-pin SOIC, 14-pin TSSOP
MCP3425	16 to 12	15 to 240	1 Diff	I ² C	2.7 to 5.5	155	10	-40 to +125	PGA, V _{REF}	6-pin SOT-23A
MCP3426	16 to 12	15 to 240	2 Diff	I ² C	2.7 to 5.5	145	10	-40 to +125	PGA, V _{REF}	8-pin SOIC, 8-pin MSOP, 8-pin 2 × 3 DFN
MCP3427	16 to 12	15 to 240	2 Diff	I ² C	2.7 to 5.5	145	10	-40 to +125	PGA, V _{REF} , Selectable I ² C addressing	10-pin MSOP, 10-pin 3 × 3 DFN
MCP3428	16 to 12	15 to 240	4 Diff	I ² C	2.7 to 5.5	145	10	-40 to +125	PGA, V _{REF} , Selectable I ² C 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: Energy Measurement ICs

Part #	Dynamic Range	Typical Accuracy	ADC Channels	Gain Selection	Output Type	Typical Voltage Reference Drift (ppm/ $^{\circ}$ C)	Typical Supply Current (mA)	Analog Voltage Range (V)	Digital Voltage Range (V)	Temperature Range ($^{\circ}$ C)	Features	Packages
MCP3901	24-bit resolution	91 dB SINAD	2	up to 32	SPI	12	2.6	4.5 to 5.5	2.7 to 5.5	-40 to +125	Phase correction, Programmable data rate	20-pin SSOP, 20-pin 4 × 4 QFN
MCP3903	24-bit resolution	91 dB SINAD	6	up to 32	SPI	5	8.3	4.5 to 5.5	2.7 to 3.6	-40 to +125	Phase correction, Programmable data rate	28-pin SSOP
MCP3905A	500:1	0.1%	2	up to 16	Active power pulse	15	3.9	4.5 to 5.5	4.5 to 5.5	-40 to +125	Active power calculation	24-pin SSOP
MCP3909	1000:1	0.1%	2	up to 16	Active power pulse/SPI	15	3.9	4.5 to 5.5	4.5 to 5.5	-40 to +125	Active power calculation	24-pin SSOP
MCP3911	24-bit resolution	94.5 dB SINAD	2	up to 32	SPI	7	1.7	2.7 to 3.6	2.7 to 3.6	-40 to +125	Phase correction, Programmable data rate	20-pin SSOP, 20-pin 4 × 4 QFN
MCP3913	24-bit resolution	94.5 dB SINAD	6	up to 32	SPI	9	5.15	2.7 to 3.6	2.7 to 3.6	-40 to +125	Enables 0.1% accuracy over 10,000:1 dynamic range, Phase correction, Programmable data rate, 16-bit CRC, Register map lock	28-pin SSOP, 40-pin 5 × 5 μ QFN
MCP3914	24-bit resolution	94.5 dB SINAD	8	up to 32	SPI	9	6.45	2.7 to 3.6	2.7 to 3.6	-40 to +125	Enables 0.1% accuracy over 10,000:1 dynamic range, Phase correction, Programmable data rate, 16-bit CRC, Register map lock	40-pin 5 × 5 μ QFN

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. ($^{\circ}$ C)	Alert/THERM	Peak Detection	Address Select	Package
PAC1710	1	SMBus/I ² C™ Current/DC Power Sensor	10, 20, 40, 80	\pm 1	2.5 to 2,600	0 to +40	-	-	1	-	Yes	10-pin DFN
PAC1720	2	Dual SMBus/I ² C Current/DC Power Sensor	10, 20, 40, 80	\pm 1	2.5 to 2,600	0 to +40	-	-	1	-	Yes	10-pin DFN
EMC1701-1	1	SMBus/I ² C Current/DC Power Sensor with Temperature Monitoring	10, 20, 40, 80	\pm 1	2.5 to 2,600	+3 to +24	1, 0	\pm 0.25/ \pm 1	2	Hardware	Yes	12-pin 4 × 4 QFN
EMC1701-2	1	SMBus/I ² C Current/DC Power Sensor with Temperature Monitoring	10, 20, 40, 80	\pm 1	2.5 to 2,600	+3 to +24	1, 0	\pm 0.25/ \pm 1	2	Software	Yes	10-pin MSOP
EMC1702-1	1	SMBus/I ² C Current/DC Power Sensor with Two Temperature Monitors	10, 20, 40, 80	\pm 1	2.5 to 2,600	+3 to +24	1, 1	\pm 0.25/ \pm 1	2	Hardware	Yes	12-pin 4 × 4 QFN
EMC1704-1	1	SMBus/I ² C Current/DC Power Sensor with Four Temperature Monitors	10, 20, 40, 80	\pm 1	2.5 to 2,600	+3 to +24	1, 3	\pm 0.25/ \pm 1	2	Software	Yes	14-pin SOIC
EMC1704-2	1	SMBus/I ² C Current/DC Power Sensor with Four Temperature Monitors	10, 20, 40, 80	\pm 1	2.5 to 2,600	+3 to +24	1, 3	\pm 0.25/ \pm 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 V _{ss}	6-pin SOT-23
MCP4014	64	Volatile	1	Up/Down	2.1, 5, 10, 50	0.5	0.5	-40 to +125	Rheostat to V _{ss}	5-pin SOT-23
MCP4017	128	Volatile	1	I ² C™	5, 10, 50, 100	0.5	0.25	-40 to +125	7-bit, Volatile, I ² C digital potentiometer	6-pin SC-70
MCP4018	128	Volatile	1	I ² C	5, 10, 50, 100	0.5	0.25	-40 to +125	7-bit, Volatile, I ² C digital potentiometer	6-pin SC-70
MCP4019	128	Volatile	1	I ² C	5, 10, 50, 100	0.5	0.25	-40 to +125	7-bit, Volatile, I ² C digital potentiometer	5-pin SC-70
MCP40D17	128	Volatile	1	I ² C	5, 10, 50, 100	0.5	0.25	-40 to +125	7-bit, Volatile, I ² C digital potentiometer	6-pin SC-70
MCP40D18	128	Volatile	1	I ² C	5, 10, 50, 100	0.5	0.25	-40 to +125	7-bit, Volatile, I ² C digital potentiometer	6-pin SC-70
MCP40D19	128	Volatile	1	I ² C	5, 10, 50, 100	0.5	0.25	-40 to +125	7-bit, Volatile, I ² C 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 V _{ss} , 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 V _{ss} , 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	127	Nonvolatile	1	SPI	5, 10, 50, 100	0.5	0.125	-40 to +125	Nonvolatile 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	255	Nonvolatile	1	SPI	5, 10, 50, 100	1	0.25	-40 to +125	Nonvolatile digital potentiometer 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
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

MIXED SIGNAL: Digital Potentiometers (Continued)

Part #	# of Taps	Memory	# per Package	Interface	Resistance (kOhms)	INL (max)	DNL (max)	Temperature Range (°C)	Comments	Packages
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	I ² C	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	I ² C	5, 10, 50, 101	0.8	0.375	-40 to +125	Rheostat mode, WiperLock Technology	14-pin TSSOP
MCP4461	257	Nonvolatile	4	I ² C	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	I ² C	5, 10, 50, 103	1	0.5	-40 to +125	Rheostat mode, WiperLock™ Technology	14-pin TSSOP
MCP4531	128	Volatile	1	I ² C	5, 10, 50, 100	0.5	0.25	-40 to +125	Potentiometer mode	8-pin MSOP
MCP4631	128	Volatile	2	I ² C	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	I ² C	5, 10, 50, 100	0.5	0.25	-40 to +125	Potentiometer mode, WiperLock Technology	8-pin MSOP
MCP4641	128	Nonvolatile	2	I ² C	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	I ² C	5, 10, 50, 100	1	0.5	-40 to +125	Potentiometer mode	14-pin TSSOP, 16-pin 4 × 4 QFN
MCP4561	256	Nonvolatile	1	I ² C	5, 10, 50, 100	1	0.5	-40 to +125	Potentiometer mode, WiperLock Technology	8-pin MSOP
MCP4661	256	Nonvolatile	2	I ² C	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	I ² C	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	I ² C	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	I ² C	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	I ² C	5, 10, 50, 100	1	0.5	-40 to +125	Rheostat mode	8-pin MSOP, 8-pin 3 × 3 DFN
MCP4652	256	Nonvolatile	2	I ² C	5, 10, 50, 100	1	0.5	-40 to +125	Rheostat mode	10-pin MSOP, 10-pin 3 × 3 DFN
MCP4562	256	Nonvolatile	1	I ² C	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	I ² C	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)	DACs per Package	Interface	V _{REF}	Output Settling Time (μs)	DNL (LSB)	Typical Standby Current (μA)	Typical Operating Current (μA)	Temperature Range (°C)	Packages
TC1320	8	1	SMBus	Ext	10	0.8	0.1	350	-40 to +85	8-pin MSOP, 8-pin SOIC
TC1321	10	1	SMBus	Ext	10	2	0.1	350	-40 to +85	8-pin MSOP, 8-pin SOIC
MCP47A1	6	1	I ² C™/SMBus	Ext	15	0.5	90	130	-40 to +125	6-pin SC-70
MCP4706	8	1	I ² C	Ext	6	0.05	0.06	210	-40 to +125	6-pin SOT-23
MCP4716	10	1	I ² C	Ext	6	0.188	0.06	210	-40 to +125	6-pin SOT-23
MCP4725	12	1	I ² C	V _{DD}	6	0.75	1	210	-40 to +125	6-pin SOT-23
MCP4726	12	1	I ² C	Ext	6	0.75	0.06	210	-40 to +125	6-pin SOT-23
MCP4728	12	4	I ² C	Int/V _{DD}	6	0.75	0.04	800	-40 to +125	10-pin MSOP
MCP4801	8	1	SPI	Int	4.5	0.5	0.3	330	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin DFN
MCP4802	8	2	SPI	Int	4.5	0.5	3.3	415	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP4811	10	1	SPI	Int	4.5	0.5	0.3	330	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin DFN
MCP4812	10	2	SPI	Int	4.5	0.5	3.3	415	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP4821	12	1	SPI	Int	4.5	1	0.3	330	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin DFN
MCP4822	12	2	SPI	Int	4.5	1	3.3	415	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP
MCP4901	8	1	SPI	Ext	4.5	0.5	3.3	175	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin DFN
MCP4902	8	2	SPI	Ext	4.5	0.5	0.3	350	-40 to +125	14-pin PDIP, 14-pin SOIC, 14-pinTSSOP
MCP4911	10	1	SPI	Ext	4.5	0.5	3.3	175	-40 to +125	8-pin DFN, 8-pin MSOP, 8-pin PDIP, 8-pin SOIC
MCP4912	10	2	SPI	Ext	4.5	0.5	0.3	350	-40 to +125	14-pin PDIP, 14-pin SOIC, 14-pinTSSOP
MCP4921	12	1	SPI	Ext	4.5	0.75	3.3	175	-40 to +125	8-pin PDIP, 8-pin SOIC, 8-pin MSOP, 8-pin DFN
MCP4922	12	2	SPI	Ext	4.5	0.75	0.3	350	-40 to +125	14-pin PDIP, 14-pin SOIC, 14-pin TSSOP

Note: The analog output is voltage.

INTERFACE

INTERFACE: Controller Area Network (CAN) Products

Part #	Operating Voltage (V)	Temperature Range (°C)	Tx Buffers	Rx Buffers	Filters	Masks	Interrupt Output	Unique Features	Packages
MCP2510 ⁽⁴⁾	2.7 to 5.5	-40 to +125	3	2	6	2	Yes	CAN 2.0B Active controller with SPI interface to MCU, 3 transmit buffers, 2 receive buffers, HW and SW message triggers	18-pin PDIP, 18-pin SOIC, 20-pin TSSOP
MCP2515	2.7 to 5.5	-40 to +125	3	2	6	2	Yes	MCP2510 pin compatible upgrade with enhanced features including higher throughput and data byte filtering	18-pin PDIP, 18-pin SOIC, 20-pin TSSOP
MCP25020	2.7 to 5.5	-40 to +125	3	2	2	1	N/A	CAN 2.0B Active I/O Expander, Configurable I/O, 2 PWM outputs	14-pin PDIP, 14-pin SOIC
MCP25025	2.7 to 5.5	-40 to +85	3	2	2	1	N/A	CAN 2.0B Active I/O Expander, Configurable I/O, 2 PWM outputs, One-wire CAN option	14-pin PDIP, 14-pin SOIC
MCP25050	2.7 to 5.5	-40 to +125	3	2	2	1	N/A	Mixed-Signal CAN 2.0B Active I/O Expander, Configurable I/O, 4 10-bit ADCs, 2 PWM outputs	14-pin PDIP, 14-pin SOIC
MCP25055	2.7 to 5.5	-40 to +85	3	2	2	1	N/A	Mixed-Signal CAN 2.0B Active I/O Expander, Configurable I/O, 4 10-bit ADCs, 2 PWM outputs, One-wire CAN option	14-pin PDIP, 14-pin SOIC
MCP2551	4.5 to 5.5	-40 to +125	N/A	N/A	N/A	N/A	N/A	High-speed CAN Transceiver (1 Mbps max. CAN bus speed), ISO11898 compatible, Industry standard pinout	8-pin PDIP, 8-pin SOIC
MCP2561	4.5 to 5.5	-40 to +150	N/A	N/A	N/A	N/A	N/A	HS CAN Transceiver; 1 Mbps, ISO11898-5, meets automotive EMC and CAN conformance requirements, MCP2561 = SPLIT Option for common mode stabilization	8-pin PDIP, 8-pin SOIC, 8-pin 3 × 3 DFN
MCP2562	4.5 to 5.5	-40 to +150	N/A	N/A	N/A	N/A	N/A	HS CAN Transceiver; 1 Mbps, ISO11898-5, meets automotive EMC and CAN conformance requirements, MCP2562 = V _{IO} Option for digital I/O level shifting from 1.8V to 5.5V	8-pin PDIP, 8-pin SOIC, 8-pin 3 × 3 DFN

Note 1: Not recommended for new designs.

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	16x 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

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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
Ethernet Switches						
LAN9303	10/100 3-port Managed Ethernet Switches	MII/RMII/Turbo MII	-	-	✓	56-pin QFN
LAN9303M	10/100 3-port Managed Ethernet Switches	MII/RMII/Turbo MII	-	-	✓	72-pin QFN
LAN9311	10/100 2-port Managed Ethernet Switches with Local Bus interface	16-bit Host Bus	-	-	✓	128-pin VTQFP, XVTQFP
LAN9312	10/100 2-port Managed Ethernet Switches with Local Bus interface	32-bit Host Bus	-	-	-	128-pin VTQFP, XVTQFP
LAN9313	10/100 3-port Managed Ethernet Switches	MII/RMII/Turbo MII	-	-	✓	128-pin VTQFP, XVTQFP
LAN89303	TrueAuto, 10/100 3-port Managed Ethernet Switches	MII/RMII/Turbo MII	-	-	Automotive	56-pin QFN
USB to Ethernet						
LAN9500A	USB 2.0 to 10/100 Ethernet Controllers	USB2.0	-	-	✓	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	USB2.0	-	-	✓	56-pin QFN
LAN9512	USB 2.0 to 10/100 Ethernet Controllers with 2-port USB 2.0 Hub	USB2.0	-	-	✓	64-pin QFN
LAN9513	USB 2.0 to 10/100 Ethernet Controllers with 3-port USB 2.0 Hub	USB2.0	-	-	✓	64-pin QFN
LAN9514	USB 2.0 to 10/100 Ethernet Controllers with 4-port USB 2.0 Hub	USB2.0	-	-	✓	64-pin QFN
LAN89530	TrueAuto, USB 2.0 to 10/100 Ethernet Controllers	USB2.0	-	-	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 Transceiver 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: 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
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: 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	I ² C™	1700	3 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	2 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	I ² C	3400	1 HW address pin, HW interrupt, 25 mA source/sink per I/O, 100 kHz, 400 kHz and 3.4 MHz I ² C™ 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	I ² C	400	3 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	I ² C	1700	3 HW address pins, 25 mA sink/source per I/O, 100 kHz, 400 kHz and 3-4 MHz I ² C supported, Interrupt output	28-pin PDIP, 28-pin SOIC, 28-pin SSOP, 28-pin QFN
MCP23S17	16-bit I/O Expander	1.8 to 5.5	-40 to +125	SPI	10000	3 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	I ² C	3400	1 HW address pin, 2 HW interrupts, 25 mA source/sink per I/O, 100 kHz, 400 kHz and 3.4 MHz I ² C 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	2 HW interrupts, 25 mA source/sink per I/O	28-pin SOIC, 28-pin SDIP

INTERFACE: IEEE 802.11™ Modules

Part #	Pin Count	Frequency Range (GHz)	Sensitivity (dBm)	Power Output (dBm)	RSSI	Tx Power Consumption (mA)	Rx Power Consumption (mA)	Clock	Sleep	MAC	MAC Features	Protocols	Encryption	Interface	Packages
MRF24WB0MA	36	2.412–2.484	-91	10	Yes	154	85	25 MHz	0.1 μA ⁽¹⁾	Yes	802.11b, long range, low power	Wi-Fi® Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTIP, SSL, TCP, UDP, ZeroConf ⁽²⁾	WPA2-PSK, WPA-PSK, WEP	4-wire SPI	36/Module
MRF24WB0MB	36	2.412–2.484	-91	10	Yes	154	85	25 MHz	0.1 μA ⁽¹⁾	Yes	802.11b, long range, low power	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTIP, SSL, TCP, UDP, ZeroConf ⁽²⁾	WPA2-PSK, WPA-PSK, WEP	4-wire SPI	36/Module
MRF24WG0MA	36	2.412–2.484	-95	18	Yes	240	156	25 MHz	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, SNTIP, SSL, TCP, UDP, ZeroConf ⁽²⁾	WPA2-PSK, WPA-PSK, WEP, WPA2-Enterprise	4-wire SPI	36/Module
MRF24WG0MB	36	2.412–2.484	-95	18	Yes	240	156	25 MHz	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, SNTIP, SSL, TCP, UDP, ZeroConf ⁽²⁾	WPA2-PSK, WPA-PSK, WEP, WPA2-Enterprise	4-wire SPI	36/Module
RN171	49	2.412–2.484	-83	0 to +12	Yes	180 (+12 dBm)	35	44 MHz	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
RN131	44	2.412–2.484	-85	+18	Yes	210 (+18 dBm)	40	44 MHz	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

Note 1: Indicates "off" current

Note 2: Supported in the provided stack

INTERFACE: Bluetooth® Modules

Part #	Module Type	Pin Count	Frequency Range (GHz)	Sensitivity (dBm)	Power Output (dBm)	Power Consumption	Sleep	MAC	Profiles	Interface	Packages
RN41	Data	35	2.412–2.484	–80	15	Standby/Idle 25 mA, Connected (normal mode) 30 mA, Connected (low power Sniff) 8 mA	Standby/Idle (Deep sleep enabled) 250 µA	Yes	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB, Bluetooth	35/Module
RN42	Data	35	2.412–2.484	–80	4	Standby/Idle 25 mA, Connected (normal mode) 3 mA, Connected (low power Sniff) 8 mA	Standby/Idle (Deep sleep enabled) 26 µA	Yes	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB, Bluetooth	35/Module
RN52	Audio	50	2.412–2.484	–85	4	Idle 12 mA, Connected A2DP 26 mA, HFP/HSP 23.5 mA	N/A	Yes	A2DP, AVRCP, HFP, HSP, SPP, iAP	UART, USB, Bluetooth, GPIO	50/Module

INTERFACE: IEEE 802.15.4 ZigBee® RF Transceiver Products

Part #	Pin Count	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	2.405 to 2.48	–95	0	Yes	23	19	20	2 µA	Yes	CSMA-CA	AES128	4-wire SPI	12/Module
MRF24J40MB	12	2.405 to 2.48	–102	20	Yes	130	25	20	5 µA	Yes	CSMA-CA	AES128	4-wire SPI	12/Module
MRF24J40MC	12	2.405 to 2.48	–108	20	Yes	120	25	20	12 µA	Yes	CSMA-CA	AES128	4-wire SPI	12/Module
MRF24XA	32	2.405 to 2.48	–103	0	Yes	25	13.5	16	0.04 µA	Yes	CSMA-CA	AES128	4-wire SPI	32-pin QFN

INTERFACE: Sub-GHz Transceivers

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 @ 0 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	32-pin TQFN
MRF89XAM8A	12	868	–113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	12/Module
MRF89XAM9A	12	915	–113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	12/Module

INTERFACE: Sub-GHz 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
PIC12F529T48A	6	418–868	2.3K	64	201	1	1	8	Yes	OOK/FSK	100	10	2.0–3.7	14-pin TSSOP
PIC12F529T39A	6	310–928	2.3K	64	201	1	1	8	Yes	OOK/FSK	100	10	2.0–3.7	14-pin TSSOP
PIC12LF1840T48A	6	418–868	7.1K	256	256	2	1	32	Yes	OOK/FSK	100	10	1.8–3.6	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

INTERFACE: USB Products

Part #	Description	Processor Interface	# of Downstream Ports	Card Formats	Industrial Version	Packages
USB Hub Controllers						
USB2412	2-Port USB 2.0 Hi-Speed 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	USB 2.0 Hi-Speed Hub w/Battery Charger Detection	USB 2.0	2, 3, 4, 7 port options	–	Automotive	36 or 64-pin QFN
USB2524	4-Port USB 2.0 Hi-Speed Multi-Switch Hub	USB 2.0 × 2	4	–	–	56-pin QFN
USB3503A	3-Port USB 2.0 Hi-Speed HSIC Hub for Mobile Applications	HSIC	3	–	✓	25-ball WLCSP
USB3803B	3-Port USB 2.0 Hi-Speed Hub for Mobile Applications	USB 2.0	3	–	✓	25-ball WLCSP
USB553XB	USB 3.0 SuperSpeed Hub w/Battery Charger Detection	USB 3.0	4, 7 port options	–	✓	64 or 72-pin QFN
USB3X13	3-Port USB 2.0 Hi-Speed Controller Hub for Mobile Applications	USB 2.0 or HSIC	3 (USB 2.0 ×2/ HSIC ×1)	–	✓	30-ball WLCSP
USB253X	USB 2.0 Hi-Speed Controller Hub w/Battery Charger Detection	USB 2.0	2, 3, 4 port options	–	✓	36-pin QFN
USB46X4	USB 2.0 Hi-Speed Controller Hub w/USB and HSIC Interfaces	USB 2.0 or HSIC	4 (USB 2.0 ×4 or USB 2.0 ×2/ HSIC ×2)	–	✓	48-pin QFN
USB Power and Charging						
UCS1001	USB Port Power Controller with Charger Emulation	USB 2.0	–	–	✓	20-pin QFN
UCS1002	Programmable USB Port Power Controller with Charger Emulation	USB 2.0	–	–	✓	20-pin QFN
USB Transceivers/Switches						
USB333X	Mobile Hi-Speed USB 2.0 Transceiver with Multi-frequency Support	ULPI	–	–	✓	25-ball WLCSP
USB3340	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
USB260X	Hi-Speed USB 2.0 Multi-Format Flash Media Hub Controller with Card Power	USB 2.0	3	SD/MMC/eMMC/MS/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						
SEC11X0	Smart Card Controller	USB 2.0	–	–	–	16-pin QFN
SEC120X	Smart Card Controller with Multi-Interface Support	USB 2.0	–	–	–	24 or 48-pin QFN
SEC2410	Smart Card Flash Media Controller with AES Encryption	USB 2.0	–	SD ×2/MMC	✓	64 or 72-pin QFN
SEC4410	Smart Card Flash Media Controller with AES Encryption	HSIC	–	SD ×2/MMC	✓	64 or 72-pin QFN

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	V _{OUT} 1/4 of V _{DD} or V _{OUT} 1/4 of Detect Input	3V or 3.3V Microprocessor	–10 to +60	8-pin PDIP
RE46C114	Yes	V _{OUT} 1/2 of V _{DD} or V _{OUT} 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 (Vdc)	Voltage Regulator (Vdc)	LED Driver	Horn Driver	Interconnect	Low Battery Detection	Brown Out	Boost Regulator	Op Amp Vos Max (μ V)	Op Amp Ib Max (pA)	Op Amp GBWP (kHz)	Op Amp Aol (dB)	Op Amp Slew Rate (V/ μ S)	Op Amp Unity Gain Stable	Op Amp CMRR Min (dB)	Op Amp Rail-to-Rail	Operating Temp. Range ($^{\circ}$ 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 ($^{\circ}$ 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

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Thermal Management Demonstration and Evaluation Tools		
ADM00345	MTD6505 3-Phase BLDC Sensorless Fan Controller Demonstration Board	MTD6505
ADM00516	EMC1182 Temperature Sensor Evaluation Board	EMC1182
MCP9700DM-PCTL	MCP9700 Temperature-to-Voltage Converter PICtail™ Demonstration Board	MCP9800
MCP9700DM-TH1	MCP9700 Thermistor Demonstration Board	MCP9700, MCP6S92
MCP9800DM-PCTL	MCP9800 Temperature Sensor PICtail Demonstration Board	MCP9800
MCP9800DM-TS1	MCP9800 Temperature Sensor Demonstration Board	MCP9800
MCP9800DM-DL	MCP9800 Temperature Data Logger Demonstration Board	MCP9800
MCP9800DM-DL2	MCP9800 Temperature Data Logger Demonstration Board 2	MCP9800, MCP101, PIC10F202, 24LC16B
TC1047ADM-PICTL	TC1047A Temperature-to-Voltage Converter PICtail Demonstration Board	TC1047A
TC642DEMO	TC64X/64XB Fan Speed Controller Demonstration Board	TC642, TC646, TC647, TC648, TC649
TC650DEMO	TC650 Fan Controller Demonstration Board	TC650
TC652DEMO	TC652 Fan Controller Demonstration Board	TC652
TC72DM-PICTL	TC72 Digital Temperature Sensor PICtail Demonstration Board	TC72
TC74DEMO	TC74 Serial Digital Thermal Sensor Demonstration Board	TC74
TC77DM-PICTL	TC77 Thermal Sensor PICtail Demonstration Board	TC77
TMPSNS-RTD1	PT100 RTD Evaluation Board	MCP6S26, MCP3301, MCP6024, MCP41010, PIC18F2550, TC1071, MCP6002
TMPSNSRD-RTD2	RTD Reference Design Board	MCP3551, MCP9804
TMPSNSRD-TCPL1	Thermocouple Reference Design	MCP9804, MCP3421
EVB-EMC1043	EMC1043 Evaluation Board	EMC1043
EVB-EMC1043C	EMC1043 Evaluation Board with External Diode Off-Board Cable	EMC1043
EVB-EMC1412	EMC1412 Evaluation Board	EMC1412
EVB-EMC14xx	EMC1412 Evaluation Board	EMC1412, EMC1413, EMC1414
EVB-EMC2101	EMC2101 Evaluation Board	EMC2101
EVB-EMC2103-1	EMC2103-1 Evaluation Board	EMC2103-1

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Mixed Signal Demonstration and Evaluation Tools		
ADM00310	MCP3903 ADC Evaluation Board for 16-bit MCUs	MCP3903, MCP2200, PIC24, dsPIC33
ADM00317	MCP47X6 PICtail Plus Daughter Board	MCP4726, MCP4716, MCP4706
ADM00333	PIC18F87J72 Evaluation Board	PIC18F87J72
ADM00398	MCP3911 ADC Evaluation Board for 16-bit MCUs	MCP3911
ARD00280	PIC18F87J72 Single Phase Energy Meter Reference Design	N/A
ARD00330	PIC18F87J72 Energy Monitoring PICtail Plus Daughter Board	N/A
ARD00342	MCP3901 and PIC18F65J90 Shunt Meter Reference Design	MCP3901, PIC18F65J90
ARD00385	MCP3911 and PIC18F85K90 Single-Phase Anti-Tamper Energy Meter	MCP3911
DV3201A	MCP3XXX Single/Dual ADC MXDEV® Daughter Board	MCP3001, MCP3002, MCP3201, MCP3202
DV3204A	MCP3204/08 MXDEV Daughter Board	MCP3004, MCP3008, MCP3204, MCP3208
DV42XXX	MCP42XXX Digital Potentiometer Evaluation Board	MCP42010, MCP42050, MCP42100
DVMCPA	MXDEV Analog Evaluation System	MCP3001/02, MCP3004/08, MCP3201/08, MCP3204/08
MCP2030DM-TPR	MCP2030 Bidirectional Communications Demonstration Kit	MCP2030, MCP3421, PIC16F636, TC4421, PIC18F4680
MCP3221DM-PCTL	MCP3221 PICtail Demonstration Board	MCP3221
MCP3421EV	MCP3421 SOT-23-6 Evaluation Board	MCP3421
MCP3421DM-BFG	MCP3421 Battery Fuel Gauge Demonstration Board	MCP3421, MCP73831, MCP1702, PIC18F4550
MCP3421DM-WS1	MCP3421 Weight Scale Demonstration Board	MCP3421, MCP6V07, PIC18F4550
MCP3422EV	MCP3422 Evaluation Board	MCP3422
MCP3423EV	MCP3423 Evaluation Board	MCP3423
MCP3424EV	MCP3424 Evaluation Board	MCP3424
MCP3425EV	MCP3425 SOT 23-6 Evaluation Board	MCP3425
MCP3551DM-PCTL	MCP3551 Delta-Sigma ADC Demonstration Board	MCP3551
MCP355XDV-MS1	MCP355X Sensor Application Developer's Board	MCP3551, MCP3553, MCP3550-50, MCP3550-60
MCP355XDM-TAS	MCP355X Tiny Application Sensor Demonstration Board	MCP3551, MCP3553, MCP3550-50, MCP3550-60
MCP3901EV-MCU16	MCP3901 ADC Evaluation Board for 16-bit MCUs	MCP3901, PIC24F, PIC24H, dsPIC33, PIC18F86J55
MCP3905EV	MCP3905 Energy Meter Evaluation Board	MCP3905
MCP3905RD-PM1	MCP3905 Energy Meter Reference Design	MCP3905
MCP3909EV-MCU16	MCP3909 ADC Evaluation Board for 16-bit MCUs	MCP3909
MCP3909RD-3PH1	MCP3909 3-Phase Energy Meter Reference Design	MCP3909, PIC18F2520, PIC18F4550
MCP3909RD-3PH3	MCP3909 and dsPIC33F 3-Phase Energy Meter Reference Design	MCP3909, dsPIC33FJ128GP706
MCP3909RD-1PH1	MCP3909 and PIC18F85J90 Single Phase Energy Meter Reference Design	MCP3909, PIC18F85J90
MCP401XEV	MCP401X Evaluation Board	MCP40D18, MCP4017, MCP4018, MCP4019, MCP40D17, MCP40D19

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Mixed Signal Demonstration and Evaluation Tools (Continued)		
MCP4XXXDM-DB	MCP4XXX Digital Potentiometer Daughter Board	MCP4011, MCP4021, MCP42XXX
MCP402XEV	MCP402X Non-Volatile Digital Potentiometer Evaluation Board	MCP4021, MCP4022, MCP4023, MCP4024
MCP42XXDM-PTPLS	MCP42XX PICtail Plus Daughter Board	MCP4231, MCP4232, MCP4241, MCP4242, MCP4251, MCP4252, MCP4261, MCP4262
MCP42XXEV	MCP42XX Evaluation Board	MCP4231, MCP4241, MCP4251, MCP4261
MCP43XXEV	MCP43XX Evaluation Board	MCP4331, MCP4341, MCP4351, MCP4361
MCP46XXDM-PTPLS	MCP46XX PICtail Plus Daughter Board	MCP4631, MCP4641, MCP4651, MCP47652, MCP4661, MCP4662
MCP46XXEV	MCP46XX Evaluation Board	MCP4631, MCP4641, MCP4651, MCP4661
MCP4725EV	MCP4725 SOT 23-6 Evaluation Board	MCP4725
MCP4725DM-PTPLS	MCP4725 PICtail Plus Daughter Board	MCP4725
MCP4728EV	MCP4728 Quad DAC Evaluation Board	MCP4728
MXSIGDM	Mixed Signal PICtail Demonstration Board	TC132X, MCP330X, MCP320X, MCP482X, MCP492X, MCP3221, MCP3021, MCP1525
EVB-EMC1701	EMC1701 Evaluation Board	EMC1701-1, EMC1701-2
EVB-PAC1710	PAC1710 Evaluation Board	PAC1710
EVB-PAC1720	PAC1720 Evaluation Board	PAC1720
Power Management Demonstration and Evaluation Tools		
ADM00360	MCP16301 High Voltage Buck Converter 300 mA D2PAK Demo Board	MCP16301
ADM00414	MCP16321 Evaluation Board	MCP16321
ADM00423	MCP16322 Evaluation Board	MCP16321, MCP16322
ADM00427	MCP16323 Evaluation Board	MCP16321, MCP16322, MCP16323
ADM00433	MCP16301 5V/600 mA Low Noise Evaluation Board	MCP16301
ADM00434	MCP19035 300 KHz Synchronous Buck Controller Evaluation Board	MCP19035
ADM00435	MCP1643 Synchronous Boost LED Constant Current Regulator Evaluation Board	MCP1643
ADM00458	MCP16251 and MCP1640B Synchronous Boost Converters Evaluation Board	MCP16251, MCP1640B
ADM00468	MCP1710 Demonstration Board	MCP1710
ARD00386	MCP1640 12V/50 mA Two Cell Input Boost Converter Reference Design	MCP1640
ARD00410	MCP16301 High-Voltage Single-Inductor Ćuk LED Driver Demonstration Board	MCP16301
ARD00458	MCP16251 and MCP1640B Synchronous Boost Converts Evaluation Board	MCP16251, MCP1640B
MCP1252DM-BKLT	MCP1252 Charge Pump Backlight Demonstration Board	MCP1252
MCP1256/7/8/9EV	MCP1256/7/8/9 Charge Pump Evaluation Board	MCP1256, MCP1257, MCP1258, MCP1259
MCP1601EV	MCP1601 Buck Regulator Evaluation Board	MCP1601
MCP1602EV	MCP1602 Evaluation Board	MCP1602
MCP1603EV	MCP1603 Buck Converter Evaluation Board	MCP1603
MCP1603RD-TNY	MCP1603 Tiny Reference Design	MCP1603
MCP1612EV	MCP1612 Synchronous Buck Regulator Evaluation Board	MCP1612

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Power Management Demonstration and Evaluation Tools (Continued)		
MCP1630RD-DDBK1	MCP1630 +12V in Dual Output Buck Converter Reference Design	MCP1630
MCP1630RD-DDBK3	MCP1630 Bidirectional 4-Cell Li-Ion Charger Reference Design	MCP1630V, PIC16F88, MCP6022
MCP1630RD-NMC1	MCP1630 Low-Cost NiMH Battery Charger Reference Design	MCP1630, PIC12F683, MCP6292, MCP1702
MCP1630DM-DDBK1	MCP1630 1A Bias Supply Demonstration Board	MCP1630
MCP1630DM-DDBS1	MCP1630 Automotive Input Boost Converter Demonstration Board	MCP1630, PIC12F683
MCP1630DM-LED2	MCP1630 Boost Mode LED Driver Demonstration Board	MCP1630V, PIC12F683, MCP1702
MCP1630RD-LIC1	MCP1630 Li-Ion Multi Bay Battery Charger Reference Design	MCP1630
MCP1630RD-LIC2	MCP1630 Low Cost Li-Ion Battery Charger Reference Design	MCP1630
MCP1630RD-SALED	MCP1630 SEPIC Automotive LED Driver Reference Board	MCP16301
MCP1630DM-NMC1	MCP1630 NiMH Battery Charger Demonstration Board	MCP1630
MCP1630DM-DDBS2	MCP1630 Coupled Inductor Boost Demonstration Board	MCP1630, PIC12F683
MCP1630DM-DDBK4	MCP1630 Automotive Input, Triple Output Converter Demonstration Board	MCP1630, PIC12F683
MCP1631RD-DCPC1	MCP1631HV Digitally Controlled Programmable Current Source Reference Design	MCP1631HV, PIC16F616
MCP1631RD-MCC1	MCP1631HV Multi-Chemistry Battery Charger Reference Design	MCP1631HV, PIC16F883
MCP1631RD-MCC2	MCP1631HV Multi-Chemistry Battery Charger Reference Design	MCP1631HV, PIC16F883
MCP1640EV-SBC	MCP1640 Sync Boost Converter Evaluation Board	MCP1640
MCP1640RD-4ABC	MCP1640 Single Quad-A Battery Boost Converter Reference Design	MCP1640, PIC12F617
MCP1650DM-LED1	MCP1650 3W White LED Demonstration Board	MCP1650
MCP1650DM-LED2	MCP1650 Multiple White LED Demonstration Board	MCP1650
MCP1650EV	MCP1650 Boost Controller Evaluation Board	MCP1650
MCP1650DM-DDSC1	MCP1650 SEPIC Power Supply Demonstration Board	MCP1650
MCP1726EV	MCP1726 1A LDO Evaluation Board	MCP1726
MCP73113EV-1SOVP	MCP73113 OVP Single Cell Li-Ion Battery Charger Evaluation Board	MCP73113, MCP73114
MCP73213EV-2SOVP	MCP73213 OVP Dual Cell Li-Ion Battery Charger Evaluation Board	MCP73213
MCP73X23EV-LFP	MCP73X23 OVP Lithium Iron Phosphate Battery Charger Evaluation Board	MCP73123, MCP73223
MCP73871DM-VPCC	MCP73871 Demonstration Board with Voltage Proportional Current Control	MCP73871
MCP7381XEV	MCP7381X Low-Cost Li-Ion Battery Charger Evaluation Board	MCP73811, MCP73812
MCP7382XEV	MCP7382X Li-Ion Battery Charger Evaluation Board	MCP7382X
MCP73831EV	MCP73831 Evaluation Kit	MCP73831
MCP73833EV	MCP73833 Li-Ion Battery Charger Evaluation Board	MCP73833, MCP73834
MCP7383XEV-DIBC	MCP73837/8 AC/USB Dual Input Battery Charger Evaluation Board	MCP73837, MCP73838

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Power Management Demonstration and Evaluation Tools (Continued)		
MCP7383XRD-PPM	MCP7383X Li-Ion System Power Path Management Reference Design	MCP73831, MCP73832, MCP73833, MCP73834
MCP73855EV	MCP73855 Li-Ion Battery Charger Evaluation Board	MCP73855
MCP73871EV	MCP73871 Evaluation Board	MCP73871
SOT23-3EV-VREG	SOT23-3 Voltage Regulator Evaluation Board	MCP1701A, MCP1702, MCP1703
SOT223-3EV-VREG	SOT223-3 Voltage Regulator Evaluation Board	MCP1791, MCP1824, MCP1825, MCP1826
SOT89-3EV-VREG	SOT89-3 Voltage Regulator Evaluation Board	MCP1700, MCP1701A, MCP1702, MCP1703
SOT23-5EV-VREG	SOT23-5 Voltage Regulator Evaluation Board	MCP1801, MCP1802, TC1014/1015/1185, and other SOT23-5 LDOs
SOT223-5EV-VREG	SOT223-5 Voltage Regulator Evaluation Board	MCP1790, MCP1824, MCP1825, MCP1826
T0263-3EV-VREG	T0220-3/T0263-3 Voltage Regulator Evaluation Board	MCP1790, MCP1825S, MCP1826S, MCP1827S
T0263-5EV-VREG	T0220-5/T0263-5 Voltage Regulator Evaluation Board	MCP1790, MCP1791, MCP1825, MCP1826, MCP1827
TC110DM	TC110 Boost Converter Demonstration Board	TC110, MCP73832
TC115EV	TC115 PFM/PWM Boost Converter Evaluation Board	TC115
TC1016/17EV	TC1016/17 LDO Linear Regulator Evaluation Board	TC1016/17
TC1303BDM-DDBK1	TC1303B Demonstration Board	TC1303B
TC1303DM-DDBK2	TC1303 DFN Adjustable Output Demonstration Board	TC1303C
EVB-UCS1001	UCS1001 Evaluation Board	UCS1001-1, UCS1001-2
EVB-UCS1002	UCS1002 Evaluation Board	UCS1002
Interface Products Demonstration and Evaluation Tools		
ADM00419	MCP2210 Breakout Module	MCP2210
ADM00421	MCP2210 Evaluation Kit	MCP2210
DV251001	MCP2510/2515 CAN Developer's Kit	MCP2515, MCP2510
DV250501	MCP250XX CAN I/O Expanders Developer's Kit	MCP25020, MCP25025, MCP25050, MCP25055
EVB8710	LAN8710A High-Speed 10/100 Ethernet Transceiver Customer Evaluation Board	LAN8710A
EVB8720	LAN8720A High-Speed 10/100 Ethernet Transceiver Customer Evaluation Board	LAN8720A
EVB8740	LAN8740/LAN8741 High-Speed 10/100 EEE enabled Ethernet Transceiver Customer Evaluation Board	LAN8740A, LAN8741A
EVB8742	LAN8742 High-Speed 10/100 Ethernet Transceiver Customer Evaluation Board with Wake-on-LAN	LAN8742A

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Interface Products Demonstration and Evaluation Tools (Continued)		
EVB88730	LAN88730 Automotive Grade High-Speed MII/RMII 10/100 Ethernet Transceiver Customer Evaluation Board	LAN88730
EVB89218-MINI	LAN89218 Automotive Grade High-Performance 10/100 Ethernet Controller Customer Evaluation Board	LAN89218
EVB9303	LAN9303 Small Form-Factor 3 Port Managed 10/100 Ethernet Switch Customer Evaluation Board	LAN9303
EVB9303M	LAN9303M Small Form-Factor 3 Port Managed 10/100 Ethernet Switch with Dual MII Customer Evaluation Board	LAN9303M
EVB9512	LAN9512 High-Speed USB 2.0 to 10/100 Ethernet with 2-Port Hub Customer Evaluation Board	LAN9512
EVB9514	LAN9513/LAN9514 High-Speed USB 2.0 to 10/100 Ethernet with 2/3-Port Hub Customer Evaluation Board	LAN9513, LAN9514
EVB-LAN7500	LAN7500 High-Speed USB 2.0 to 10/100/1000 Ethernet Customer Evaluation Board	LAN7500
EVB-LAN7500-LC	LAN7500 High-Speed USB 2.0 to 10/100/1000 Ethernet Dongle	LAN7500
EVB-LAN89303	LAN89303 Automotive Grade 3-Port Managed 10/100 Ethernet Switch Customer Evaluation Board	LAN89303
EVB-LAN89530-MII	LAN89530 Automotive Grade High-Speed USB 2.0 to 10/100 Ethernet Customer Evaluation Board: MII Interface	LAN89530
EVB-LAN89730-MII	LAN89730 Automotive Grade High-Speed USB 2.0 HSIC to 10/100 Ethernet Customer Evaluation Board	LAN89730
EVB-LAN9220-MINI	LAN9220 High-Performance 16-bit Small Formfactor 10/100 Ethernet Controller Customer Evaluation Board	LAN9220
EVB-LAN9221-MINI	LAN9221 High-Performance 16-bit 10/100 Ethernet Controller Customer Evaluation Board	LAN9221
EVB-LAN9313M	LAN9313 3-Port 10/100 Ethernet Switch Customer Evaluation board with MII MAC Interface	LAN931X
EVB-LAN9313P	LAN9313 3-Port 10/100 Ethernet Switch Customer Evaluation board with MII PHY Interface	LAN931X
EVB-LAN9500A-LC	LAN9500A High-Speed USB 2.0 to 10/100 Ethernet Dongle	LAN9500A
EVB-LAN9500A-MII	LAN9500A High-Speed USB 2.0 to 10/100 Ethernet with MII Customer Evaluation Board	LAN9500A
EVB-LAN9730-MII	LAN9730 High-Speed USB 2.0 HSIC to 10/100 Ethernet Customer Evaluation Board	LAN9730
EVB-SEC1110	SEC1110 Smart Card Bridge to USB Customer Evaluation Board	SEC1110
EVB-SEC1210	SEC1210 Smart Card Bridge to USB, PCI and SPI Customer Evaluation Board	SEC1210
EVB-SEC1212-DEV	SEC1212 Smart Card Bridge to USB, PCI and SPI Customer Evaluation Board: 48-pin QFN	SEC1212
EVB-SEC2410-SSD	Hi-Speed USB 2.0 Flash Media Controller with AES Encryption and Integrated Smart Card Reader Evaluation Board	SEC2410
EVB-USB2240-IND	USB2240 Ultra Fast High-Speed USB 2.0 Multi-Slot Flash Media Controller Customer Evaluation Board	USB224X
EVB-USB2250	USB2250 Ultra Fast High-Speed USB 2.0 Multi-Slot Flash Media Controller Customer Evaluation Board	USB225X
EVB-USB2412	USB2412 High-Speed USB 2.0 Single TT 2 Port Hub in a Tiny QFN Package Customer Evaluation Board	USB2412
EVB-USB2422	USB2422 High-Speed USB 2.0 Single TT 2 Port Hub with Battery Charging Support Evaluation Board	USB2422
EVB-USB2512BC	USB2512B High-Speed USB 2.0 Multi TT 2 Port Hub with Battery Charging Support Customer Evaluation Board	USB2512B
EVB-USB2513BC	USB2513B High-Speed USB 2.0 Multi TT 3 Port Hub with Battery Charging Support Customer Evaluation Board	USB2513B

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Interface Products Demonstration and Evaluation Tools (Continued)		
EVB-USB2514BC	USB2514B High-Speed USB 2.0 Multi TT 4 Port Hub with Battery Charging Support Customer Evaluation Board	USB2514B
EVB-USB2514B-FS	USB2514 Full-Speed USB 2.0 4 Port Hub Customer Evaluation Board	USB2514B
EVB-USB2514QFN48	USB2514 High-Speed USB 2.0 Multi TT 2 Port Hub in a Tiny QFN Package Customer Evaluation Board	USB2514B
EVB-USB2517	USB2517 High-Speed USB 2.0 Multi TT 7 Port Hub Customer Evaluation Board	USB2517
EVB-USB2534BC	USB2534 4-Port USB 2.0 Hub with Battery Charging Evaluation Board	USB2534
EVB-USB2640	USB2640 USB 2.0 2-Port Hub, with Ultra-Fast Flash Media Controller Customer Evaluation Board	USB2640
EVB-USB2642	USB2642 USB 2.0 2-Port Hub with UCS81001 Port Power Controller and Ultra Fast Flash Media Controller (MMC 4 and 8 bit, SD)	USB2642
EVB-USB2660	USB2660 USB 2.0 2-Port Hub, with Two Ultra Fast Flash Media Controller Customer Evaluation Board	USB2660
EVB-USB3320	USB3320 USB 2.0 Transceiver with ULPI Interface Evaluation Board	USB332X
EVB-USB3330	USB3330 USB 2.0 Transceiver with ULPI Interface, Rapid Charge and Multi-Frequency Reference Clock Evaluation Board	USB333X
EVB-USB3340	USB3340 USB 2.0 Transceiver with ULPI Interface, Rapid Charge and Multi-Frequency Reference Clock Evaluation Board	USB334X
EVB-USB3343	USB3343 USB 2.0 Transceiver with ULPI Interface, Rapid Charge and 26 MHz Frequency Reference Clock Evaluation Board	USB334X
EVB-USB3503	USB3503 HSIC to USB 2.0 Mobile Hub Evaluation Board	USB3503
EVB-USB3613	USB3613 3-Port HSIC Up/Down USB 2.0 Hub Evaluation Board	USB3613
EVB-USB3740	USB3740 High-Speed Switch Evaluation Board	USB3740
EVB-USB3750	USB 2.0 Port Protection with Integrated Switch and Charger Detection Evaluation Board	USB375X
EVB-USB3803	USB3803 USB 2.0 Mobile Hub Evaluation Board	USB3803
EVB-USB3813	USB3813 3-Port HSIC Down USB 2.0 Hub Evaluation Board	USB3813
EVB-USB4604BCH	USB4604 4-Port HSIC Up USB 2.0 Hub with UCS1002 Battery Charging Evaluation Board	USB4604
EVB-USB4604BCU	USB4604 4-Port USB 2.0 Hub with UCS1002 Battery Charging Evaluation Board	USB4604
EVB-USB4624BCUH	USB4624 4-Port Switchable USB 2.0 and HSIC Hub Evaluation Board	USB4624
EVB-USB4640	USB4640 HSIC to USB 2.0 2 Port Hub with Ultra Fast Flash Media Controller Customer Evaluation Board	USB4640

Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Interface Products Demonstration and Evaluation Tools (Continued)		
EVB-USB5534	USB5534B High Speed USB 3.0 4 Port Hub Evaluation Board	USB553xB
EVB-USB5534BC	USB5534B High Speed USB 3.0 4 Port Hub with UCS1002 Battery Charging Evaluation Board	USB553xB
EVB-USB5537	USB5537B High Speed USB 3.0 7 Port Hub Evaluation Board	USB5537B
EVB-USB82514	USB82514 Auto-Grade USB 2.0 High-Speed 4-Port Hub Evaluation Board	USB82514
EVB-USB82642	USB82642 Auto-Grade USB 2.0 Hub with UCS81001 Battery Charging and Flash Media Controller Evaluation Board	USB82642
EVB-USB83340	USB83340 Automotive-Grade High-Speed USB 2.0 Transceiver	USB83340
GPIODM-KPLCD	GPIO Expander Keypad and LCD Demonstration Board	MCP23008, MCP23S08, MCP23017, MCP23S17, PIC18F4550, MCP1702
MCP212XDM	MCP2120/22 Developer's Board	MCP2120, MCP2122
MCP212XEVD	MCP212X Developer's Daughter Board	MCP212X
MCP2140DM-TMPSNS	MCP2140 IrDA® Wireless Temp Demonstration Board	MCP2140
MCP215X/40EVD	MCP215X/40 Developer's Daughter Board	MCP2140, MCP2150/55
MCP215XDM	MCP215X Data Logger Demonstration Board	MCP2150/55
MCP2150DM	MCP2150 Developer's Board	MCP2150, MCP2155
MCP2200EVD	MCP2200 USB to RS232 Demonstration Board	MCP2200
MCP23X08EVD	MCP23X08 8-bit GPIO Expander Evaluation Board	MCP23008, MCP23S08
MCP23X17EVD	MCP23X17 16-bit GPIO Expander Evaluation Board	MCP23017, MCP23S17
MCP2515DM-BM	MCP2515 CAN Bus Monitor Demonstration Board	MCP2515, MCP2551
MCP2515DM-PCTL	MCP2515 CAN Controller PICTail Demonstration Board	MCP2515
MCP2515DM-PTPLS	MCP2515 PICTail Plus Daughter Board	MCP2515, MCP2551
PKSERIAL-I2C1	PICKit™ Serial I ² C Demonstration Board	24LC02B, MCP9801, MCP3221, TC1321, MCP23008
PKSERIAL-SPI1	PICKit Serial SPI Demonstration Board	25LC020A, TC77, MCP3201, MCP4822, MCP41010, MCP6S92, MCP23S08

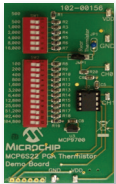
Analog Design Development Tools

Evaluation, Demonstration and Development Kits		
Order #	Description	Devices Supported
Linear Demonstration and Evaluation Tools		
ADM00375	MCP6H04 Evaluation Board	MCP6H04
ARD00354	MCP6N11 and MCP6V2X Wheatstone Bridge Reference Design	MCP6N11, MCP6001, MCP6V26, MCP6V27, PIC18F2553
MCP6031DM-PTPLS	MCP6031 Photodiode PICtail Plus Demonstration Board	MCP6031
MCP651EV-VOS	MCP651 Input Offset Evaluation Board	MCP651
MCP661DM-LD	MCP661 Line Driver Demonstration Board	MCP661, MCP662, MCP665
MCP6S22DM-PICTL	MCP6S22 PGA PICtail Demonstration Board	MCP6S22
MCP6S2XEV	MCP6S2X PGA Evaluation Board	MCP6S2X
MCP6SX2DM-PCTLPD	MCP6SX2 PGA Photodiode PICtail Demonstration Board	MCP6S22/92
MCP6SX2DM-PCTLTH	MCP6SX2 PGA Thermistor PICtail Demonstration Board	MCP6S22/92
MCP6V01DM-VOS	MCP6V01 Input Offset Demonstration Board	MCP6V01, MCP6V03, MCP6V06, MCP6V08
MCP6V01RD-TCPL	MCP6V01 Thermocouple Auto-Zeroed Reference Design	MCP6V01
MCP6XXXEV-AMP1	MCP6XXX Amplifier Evaluation Board 1	MCP6021
MCP6XXXEV-AMP2	MCP6XXX Amplifier Evaluation Board 2	MCP6021
MCP6XXXEV-AMP3	MCP6XXX Amplifier Evaluation Board 3	MCP6021
MCP6XXXEV-AMP4	MCP6XXX Amplifier Evaluation Board 4	MCP6021
MCP6XXDM-FLTR	Active Filter Demonstration Board Kit	MCP6271
PIC16F690DM-PCTLHS	Humidity Sensor PICtail Demonstration Board	MCP6291, PIC16F690
Analog Blank Evaluation Boards		
SC70EV	SC70-6 and SOT-23-6/8 to DIP-8 Evaluation Board	SC70-6/5/3, SOT-23-8/6/5/3, and DIP-8 Devices
SOIC8EV	SOIC/MSOP/TSSOP/DIP 8-pin Evaluation Board	8-pin SOIC, MSOP, TSSOP, DIP Devices
SOIC14EV	SOIC/TSSOP/DIP 14-pin Evaluation Board	14-pin SOIC, TSSOP, DIP Devices
TSSOP20EV	20-pin TSSOP and SSOP Evaluation Board	TSSOP-20/16/14/8 and SSOP-20
VSUPEV	SOT-23-3 Voltage Supervisor Evaluation Board	SOT-23-3 Devices
VSUPEV2	SOT-23-5/6 Voltage Supervisor Evaluation Board	SOT-23-5, SOT-23-6 Devices
Miscellaneous Analog Demonstration and Evaluation Tools		
ADM00308	MTS2916A Dual Full-Bridge Stepper Motor Driver Evaluation Board	MTS2916A
ADM00344	RE46C190 Demonstration Board	RE46C190
EFIELDDEV	Electrical Field Evaluation Board	N/A
HFIELDDEV	Magnetic Field Evaluation Board	N/A
INTRFCEV	PSRR and Digital Noise Evaluation Board	N/A

Featured Analog Development Tools

Thermal Management Products

MCP9700 Thermistor Demo Board (MCP9700DM-TH1)



The MCP9700 Thermistor Demo Board contains analog circuitry to measure temperature. The board uses BC Components' 232264055103 NTC thermistor to convert temperature to resistance. The thermistor is placed in a voltage divider which converts resistance to voltage. This voltage is filtered and placed at the MCP6S22 Programmable Gain Amplifier's (PGA) CHO input. The PGA gains and buffers the thermistor.

MCP9800 Temperature Data Logger Demo Board (MCP9800DM-DL)



This board allows users to store up to 128,000 temperature readings from the MCP9800 sensor to the 24LC1025, Microchip's 1024 Kbit EEPROM.

A PIC16F684 MCU communicates with the sensor and EEPROM. In addition, the PIC MCU interfaces to a PC using the PICkit 1 Flash Starter Kit and transfers the temperature readings from the EEPROM to the PC. Microsoft Excel can be used to view the data.

Mixed Signal Products

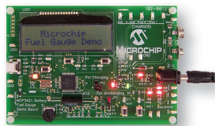
MCP3901 and PIC18F65J90 Shunt Meter Reference Design (ARD00342)



The MCP3901 and PIC18F65J90 Energy Meter Reference Design is a fully functional IEC Class 0.5 compliant single-phase meter. This low-cost design does not use any transformers and requires few external components. The PIC18F65J90

directly drives the LCD and includes both an isolated USB connection for meter calibration and access to the device power calculations. The system calculates active energy, active power, RMS current, RMS voltage, reactive energy, reactive power, apparent power, and other typical power quantities.

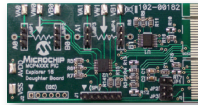
MCP3421 Battery Fuel Gauge Demonstration Board (MCP3421DM-BFG)



This board is used to demonstrate the MCP3421 18-bit delta-sigma ADC for battery fuel gauging applications. It includes two MCP3421 devices, MCP73831 (single cell Li-Ion/

Li-Polymer Charger) and PIC18F4550 MCU. The board measures the battery voltage and the current coming out from the battery in the discharging mode. If charging mode is enabled (optional), it also measures the current coming into the battery in the charging mode using the ADC device. It calculates the total fuel used and also the amount of fuel remaining.

MCP42XX PICtail Plus Daughter Board (MCP42XXDM-PTPLS)



The MCP42XX PICtail Plus Daughter Board is used to demonstrate the operation of the MCP42XX Digital Potentiometers. The operation of the MCP41XX devices is similar to that of the MCP42XX devices. Therefore, this demo board can be used as a development platform for either device family. This board is designed to be used in conjunction with either the PIC24 Explorer 16 Demo Board or the PICkit Serial Analyzer.

Power Management Products

MCP1631HV Multi-Chemistry Battery Charger Reference Design (MCP1631RD-MCC1)



This reference design is a complete stand-alone constant current battery charger for NiMH, NiCd or constant current/constant voltage for Li-Ion battery packs. When charging NiMH or NiCd batteries, the reference design is capable of charging one, two, three or four batteries connected in series and one or two series batteries for Li-Ion. This board utilizes the MCP1631HV (high-speed PIC MCU PWM TSSOP-20) and PIC16F883 (28-pin SSOP).

MCP73X23 OVP Lithium Iron Phosphate Battery Charger Evaluation Board (MCP73X23EV-LFP)



The MCP73X23 Lithium Iron Phosphate Battery Charger Evaluation board demonstrates the features of Microchip's MCP73123 and MCP73223 Lithium Iron Phosphate (LiFePO₄) Battery Charge Management Controller with Input Overvoltage Protection.

MCP1640 Sync Boost Converter Evaluation Board (MCP1640EV-SBC)



Developed to help engineers reduce their product design cycle time, the MCP1640 Synchronous Boost Converter Evaluation board demonstrates the MCP1640 in two boost-converter applications with multiple output voltages. It can be used to evaluate both package options (6-pin SOT-23 and 2 × 3 8-pin DFN)

Interface Products

USB253X Hi-Speed USB 2.0 Programmable Hub Controller with Battery Charging Support and FlexConnect Feature (EVB-USB2534)



The USB2534 is a 4-port USB 2.0 hub controller that is fully programmable to customize configuration. It features FlexConnect to role swap host and device ports and LPM for lower power capability. Each downstream port has battery charging capability and can detect all of the major USB charger profiles.

Featured Analog Development Tools

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.

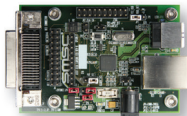
LAN7500 Hi-Speed USB 2.0 to Gigabit Ethernet Bridge Controller (EVB-LAN7500)



The EVB-LAN7500 is used to evaluate our LAN7500 Hi-Speed USB 2.0 to Gigabit Ethernet Bridge Controller solution. System architectures requiring Ethernet connectivity can utilize an existing USB port with our LAN7500 to achieve this requirement.

A USB dongle version is also available (EVB-LAN7500-LC).

LAN9500A Hi-Speed USB 2.0 to 10/100 Ethernet Bridge Controller (EVB-LAN9500A-MII/ EVB-LAN9500A-LC)



The EVB-LAN9500A-MII is used to evaluate our LAN9500A Hi-Speed USB 2.0 to Fast Ethernet Bridge Controller solution. Using an existing USB port with our LAN9500A allows designers to add Ethernet connectivity to their system architectures.

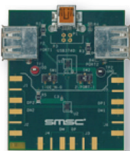
USB3340 Hi-Speed USB 2.0 Transceiver with ULPI Interface (EVB-USB3340)



The EVB-USB3340 is used to evaluate our USB334X family of highly integrated USB 2.0 transceivers with ULPI interface. The features and functions are identical to those of the USB333X family except the USB334X

comes in a convenient, widely-used 32-pin QFN package.

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.

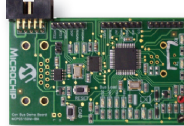
USB2640 USB 2.0 Port Hub with Ultra Fast Flash Media Controller Evaluation Board (EVB-USB2640)



The USB2640 is an Ultra Fast USB 2.0 Hub, Flash media controller, and protocol bridge combo. The EVB-USB2640 Evaluation Board demonstrates a stand-alone application for developers of

applications such as Flash media card reader/writer, printers, desktop and mobile PCs, consumer A/V, and flat panel displays.

MCP2515 CAN Bus Monitor Demo Board (MCP2515DM-BM)



The MCP2515 CAN Bus Monitor Demo board kit contains two identical boards which 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.

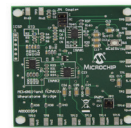
Linear Products

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



The MCP6V01 design board demonstrates how to use a difference amplifier system to measure Electromotive Force (EMF) voltage at the cold junction of thermocouple in order 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 Microchip's MCP6N11 instrumentation amplifier (INA) and a traditional three op amp INA using Microchip's 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.

MCP6H04 Evaluation Board (ADM00375)



The MCP6H04 Evaluation Board is intended to support an instrumentation amplifier and show the capability of the MCP6H04 operational amplifier. It uses a quad op amp in a difference amplifier configuration with input buffers and voltage reference. The test points for the power supply, ground, input signals, output signals, and voltage reference allow lab equipment to be connected to the board.

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China - Hong Kong SAR

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