Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

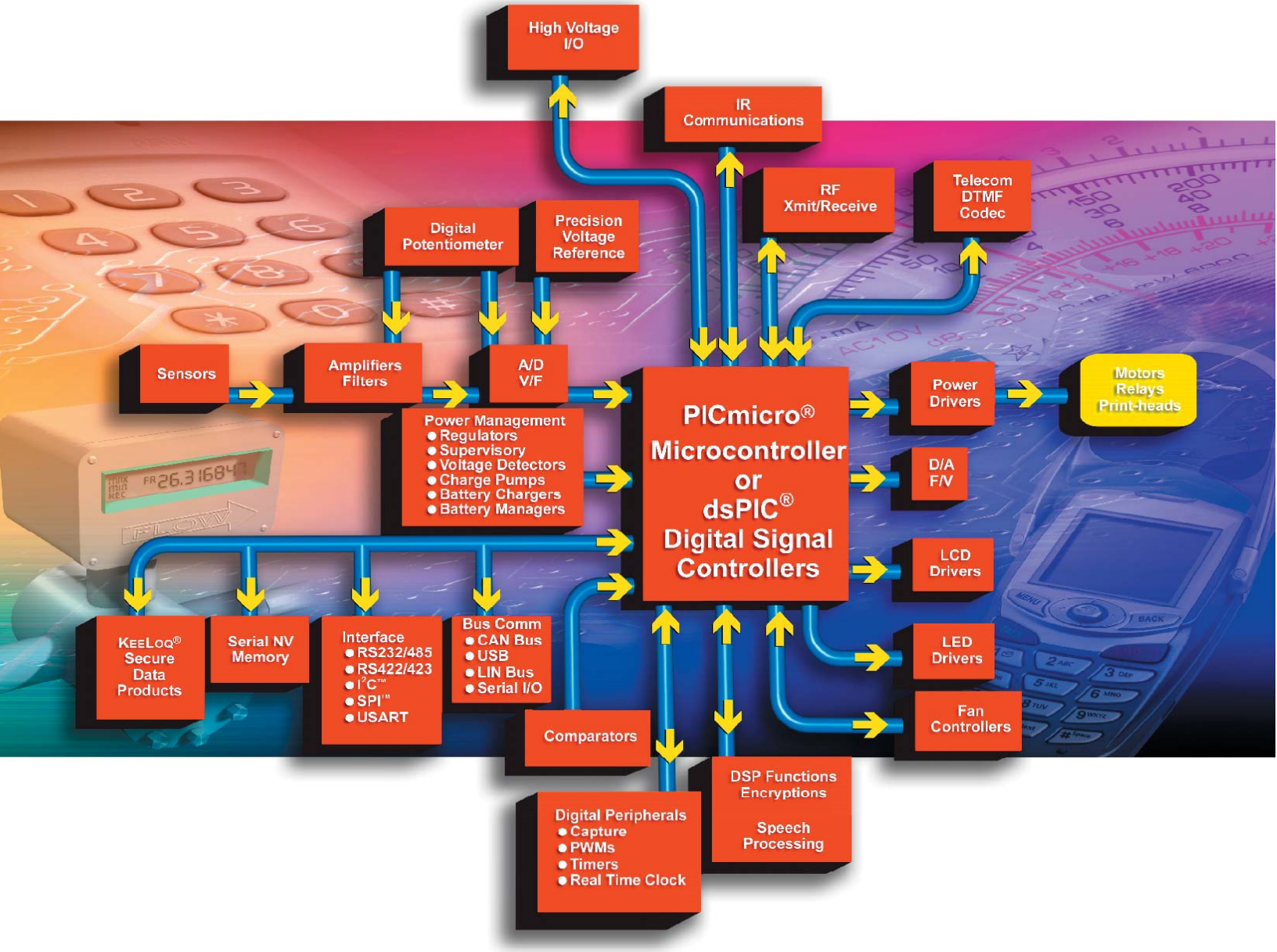
We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

MICROCHIP

2006 Product Selector Guide



Product Profile

8-bit PIC® Microcontrollers

Microchip's PIC® family of microcontrollers combine high performance, low cost and small package size to offer the best price/performance ratio in the industry. Based on a powerful RISC core, these 8-bit PIC® microcontrollers fall into three product architecture categories, providing a variety of options for any application requirement:

- Baseline 8-bit architecture: 12-bit instruction set, 6-44 pin count, 384-3.5K bytes program memory, up to 5 MIPS
- Mid-Range 8-bit architecture: 14-bit instruction set, 8-68 pin count, 896-14K bytes program memory, up to 5 MIPS
- High-Performance (PIC18) 8-bit architecture: 16-bit instruction set, 18-100 pin count, 8K-128K bytes program memory, up to 16 MIPS

The common architecture provides users with an easy migration path from 6 to 100 pins among all families with little or no code change required. Advanced features available are:

- Sophisticated timing peripherals
- Embedded analog peripherals including A/D and D/A converters, comparators, PBOR, PLVD, DAC, VREF, Op Amps and PSMC
- Communications peripherals (I^2C™/SPI™/USB/CAN and USARTs)
- Low-power, single-chip RF solutions targeting RF connectivity for high-volume embedded control applications
- Battery management solutions
- Flexible programming options including In-Circuit Serial Programming™ (ICSP™) technology, self-programming (Enhanced Flash), One-Time-Programmable (OTP), QTP, SQTP and ROM

16-bit PIC® Microcontrollers

The PIC24 microcontrollers build upon the high performance, wide selection of peripherals, Flash memory sizes and packaging choices found in the 8-bit PIC18 family. The PIC24 architecture, paired with the optimized MPLAB C30 C Compiler, provides the high throughput and C code density needed to achieve system performance goals and product launch schedules.

- Leadership 16-bit microcontroller performance and C code efficiency
- Extension of the 8-bit PIC18 microcontroller performance, memory and peripherals
- Easy migration path to dsPIC® digital signal controllers with over 40 MIPS and DSP capability, MPLAB® compatibility

16-bit dsPIC® Digital Signal Controllers (DSC)

Microchip's 16-bit high-performance digital signal controllers combine in a single core the best features of microcontrollers with the best features of DSPs. These dsPIC DSC devices reach speeds of up to 40 MIPS, are very efficient for C programming, and have Flash, data EEPROM, powerful peripherals and a variety of software libraries that allow high performance embedded solutions to be designed effortlessly and rapidly. With a familiar microcontroller "feel", tools and design environment, these dsPIC DSCs target applications, such as motor control and power conversion, speech and audio, internet and modem connectivity, telecom, encryption, high-speed sensing and automotive applications.

Stand-Alone Analog & Interface Products

Microchip offers a broad portfolio of analog and related products:

- *Linear and Mixed-Signal.* ADCs/DACs, digital potentiometers, op amps and comparators.
- *Power Management.* LDO and switching regulators, charge pumps, voltage references, CPU/system supervisors and voltage detectors, battery chargers and power MOSFET drivers.
- *Thermal Management.* Temperature sensors (logic output, voltage output, and serial output), brushless DC fan controllers, and fan fault detectors.
- *Interface.* Peripheral products supporting industry-standard networking protocols like CAN, LIN and infrared (including IrDA® Standard infrared), as well as products that provide embedded system input/output expansion capability.

Secure Data Products

Microchip's KEELOQ® code hopping algorithm combines high security, a small package outline and a very low cost to make this an ideal solution for unidirectional RKE systems. The KEELOQ code hopping technology creates a high degree of security using a long code word length together with encryption and synchronization techniques.

Memory Products

Microchip offers one of the broadest selections of serial EEPROMs in densities from 128 bits to 1 Mbit, with operating voltages down to 1.8V, in all popular bus protocols (I^2C™, Microwire and SPI™ compatible). They are available in all standard temperature ranges from -40°C to +125°C and packaged in the world's smallest standard packaging; up to 16 Kbits in 5-lead SOT-23 and up to 256 Kbits in 8-lead MSOP.

Development Systems

Microchip offers a full range of microcontroller development systems, including the MPLAB® ICE 2000 and ICE 4000 in-circuit emulators; MPLAB Integrated Development Environment; MPLAB C18 and C30 Compiler; the MPLAB ICD In-Circuit Debugger, MPLAB PM3 full-featured device programmer; PICSTART® low-cost development system; the PICkit™ 2 Flash Starter Kit, SEEVAL® Serial EEPROM Evaluation Kit and various demonstration boards. Microchip has shipped more than 300,000+ development systems worldwide.

TABLE OF CONTENTS

CURRENT dsPIC® DIGITAL SIGNAL CONTROLLER FAMILY PRODUCTS

dsPIC® Digital Signal Controller (DSC) Family

	Product	Program (Flash) KBytes	Memory (Flash) KWords	EE Bytes	SRAM Bytes	I/O Pins (max.)	Packages	A/D 12-bit 200 ksps	A/D 10-bit 1000 ksps	Timer 16-bit	Input Cap	Output Comp/Std PWM	Motor Control PWM	Quad Enc.	UART	SPI™	I^2C™	CAN	Codec Interface
	dsPIC30F Motor Control and Power Conversion Family: 30 MIPS, 2.5 - 5.5V VDD, Self-Write Flash																		
NEW	dsPIC30F2005*	8	2.66	—	384	20	28SO, 28SP, 28MM (6x6)	—	6 ch	3	3	1	6	✓	1	0	0	—	—
	dsPIC30F2010	12	4	1024	512	20	28SO, 28SP, 28MM (6x6)	—	6 ch	3	4	2	6	✓	1	1	1	—	—
NEW	dsPIC30F2015*	12	4	1024	512	20	28SO, 28SP, 28MM (6x6)	—	6 ch	3	4	2	6	✓	1	1	1	—	—
	dsPIC30F3010	24	8	1024	1024	20	28SO, 28SP, 44ML (8x8)	—	6 ch	5	4	2	6	✓	1	1	1	—	—
	dsPIC30F4012	48	16	1024	2048	20	28SO, 28SP, 44ML (8x8)	—	6 ch	5	4	2	6	✓	1	1	1	1	—
	dsPIC30F3011	24	8	1024	1024	30	40P, 44PT, 44ML (8x8)	—	9 ch	5	4	4	6	✓	2	1	1	—	—
	dsPIC30F4011	48	16	1024	2048	30	40P, 44PT, 44ML (8x8)	—	9 ch	5	4	4	6	✓	2	1	1	1	—
	dsPIC30F5015	66	22	1024	2048	52	64PT	—	16 ch	5	4	4	8	✓	1	2	1	1	—
	dsPIC30F6015	144	48	4096	8192	52	64PT	—	16 ch	5	8	8	8	✓	2	2	1	2	—
	dsPIC30F5016	66	22	1024	2048	68	80PT	—	16 ch	5	4	4	8	✓	1	2	1	1	—
	dsPIC30F6010	144	48	4096	8192	68	80PF	—	16 ch	5	8	8	8	✓	2	2	1	2	—
NEW	dsPIC30F6010A	144	48	4096	8192	68	80PF, 80PT	—	16 ch	5	8	8	8	✓	2	2	1	2	—
	dsPIC30F General Purpose Family: 30 MIPS, 2.5 - 5.5V VDD, Self-Write Flash																		
	dsPIC30F3014	24	8	1024	2048	30	40P, 44PT, 44ML (8x8)	13 ch	—	3	2	2	—	—	2	1	1	—	—
	dsPIC30F4013	48	16	1024	2048	30	40P, 44PT, 44ML (8x8)	13 ch	—	5	4	4	—	—	2	1	1	1	AC97, I^2S
	dsPIC30F5011	66	22	1024	4096	52	64PT	16 ch	—	5	8	8	—	—	2	2	1	2	AC97, I^2S
	dsPIC30F6011	132	44	2048	6144	52	64PF	16 ch	—	5	8	8	—	—	2	2	1	2	—
NEW	dsPIC30F6011A	132	44	2048	6144	52	64PF, 64PT	16 ch	—	5	8	8	—	—	2	2	1	2	—
	dsPIC30F6012	144	48	4096	8192	52	64PF	16 ch	—	5	8	8	—	—	2	2	1	2	AC97, I^2S

NEW *** Contact Microchip Technology for availability date.**
Abbreviations are found on the last page of the Selector Guide.

dsPIC® Digital Signal Controller (DSC) Family (continued)

	Product	Program (Flash) KBytes	Memory (Flash) KWords	EE Bytes	SRAM Bytes	I/O Pins (max.)	Packages	A/D 12-bit 200 ksps	A/D 10-bit 1000 ksps	Timer 16-bit	Input Cap	Output Comp/Std PWM	Motor Control PWM	Quad Enc.	UART	SPI™	I²C™	CAN	Codec Interface
	dsPIC30F6012A	144	48	4096	8192	52	64PF, 64PT	16 ch	—	5	8	8	—	—	2	2	1	2	AC97, I²S
	dsPIC30F General Purpose Family: 30 MIPS, 2.5 - 5.5V VDD, Self-Write Flash (continued)																		
	dsPIC30F5013	66	22	1024	4096	68	80PT	16 ch	—	5	8	8	—	—	2	2	1	2	AC97, I²S
NEW	dsPIC30F6013	132	44	2048	6144	68	80PF	16 ch	—	5	8	8	—	—	2	2	1	2	—
	dsPIC30F6013A	132	44	2048	6144	68	80PF, 80PT	16 ch	—	5	8	8	—	—	2	2	1	2	—
NEW	dsPIC30F6014	144	48	4096	8192	68	80PF	16 ch	—	5	8	8	—	—	2	2	1	2	AC97, I²S
	dsPIC30F6014A	144	48	4096	8192	68	80PF, 80PT	16 ch	—	5	8	8	—	—	2	2	1	2	AC97, I²S
	dsPIC30F Sensor Family: 30 MIPS, 2.5 - 5.5V VDD, Self-Write Flash																		
	dsPIC30F2011	12	4	0	1024	12	18SO, 18P, 28ML (6x6)	8 ch	—	3	2	2	—	—	1	1	1	—	—
	dsPIC30F3012	24	8	1024	2048	12	18SO, 18P, 28ML (6x6)	8 ch	—	3	2	2	—	—	1	1	1	—	—
	dsPIC30F2012	12	4	0	1024	20	28SO, 28SP, 28ML (6x6)	10 ch	—	3	2	2	—	—	1	1	1	—	—
	dsPIC30F3013	24	8	1024	2048	20	28SO, 28SP, 28ML (6x6)	10 ch	—	3	2	2	—	—	2	1	1	—	—

*** Contact Microchip Technology for availability date.**
Abbreviations are found on the last page of the Selector Guide.

	Product	Program (Flash) Kbytes	SRAM KBytes	DMA	I/O Pins (max.)	Packages	A/D 12-bit 500 ksps	A/D 10-bit 1,000 ksps	Timer 16-bit	Input Cap	Output Comp/ Std PWM	Motor Control PWM	Quad Enc. Interface	UART	SPI™	I²C™	CAN	Codec Interface
NEW	**dsPIC33F Motor Control Family: 40 MIPS, VDD = 3.3V, Self-Write Flash**																	
NEW	dsPIC33FJ64MC508*	64	8	6 ch	69	80PT	—	1 A/D, 18 ch 4 S/H	9	8	8	8	✓	2	2	2	1	—
NEW	dsPIC33FJ64MC706*	64	16	6 ch	53	64PT	—	2 A/D, 16 ch 8 S/H	9	8	8	8	✓	2	2	2	1	—
NEW	dsPIC33FJ64MC710*	64	16	6 ch	85	100PT	—	2 A/D, 24 ch 8 S/H	9	8	8	8	✓	2	2	2	2	—
	dsPIC33FJ128MC706*	128	16	6 ch	53	64PT	—	2 A/D, 16 ch 8 S/H	9	8	8	8	✓	2	2	2	1	—

NOTE: dsPIC33 devices with 2 ADCs can achieve 2.2 Msps conversion rate.
***Contact Microchip Technology for availability date.**
Abbreviations are found on the last page of the Selector Guide.

	Product	Program (Flash) Kbytes	SRAM KBytes	DMA	I/O Pins (max.)	Packages	A/D 12-bit 500 ksps	A/D 10-bit 1,000 ksps	Timer 16-bit	Input Cap	Output Comp/ Std PWM	Motor Control PWM	Quad Enc. Interface	UART	SPI™	I^2C™	CAN	Codec Interface
	dsPIC33F Motor Control Family: 40 MIPS, V_{DD} = 3.3V, Self-Write Flash (continued)																	
NEW	dsPIC33FJ128MC708*	128	16	6 ch	69	80PT	—	2 A.D, 18 ch 8 S/H	9	8	8	8	✓	2	2	2	2	—
NEW	dsPIC33FJ256MC710*	256	30	6 ch	85	100PT	—	2 A/D, 24 ch 8 S/H	9	8	8	8	✓	2	2	2	2	—
	dsPIC33F General Purpose Family: 40 MIPS, V_{DD} = 3.3V, Self-Write Flash																	
NEW	dsPIC33FJ64GP706*	64	16	6 ch	53	64PT	2 ADC, 18 ch 2 S/H	—	9	8	8	—	—	2	2	2	2	1
NEW	dsPIC33FJ64GP708*	64	16	6 ch	69	80PT	2 ADC, 24 ch 2 S/H	—	9	8	8	—	—	2	2	2	2	1
NEW	dsPIC33FJ64GP710*	64	16	6 ch	85	100PT	2 ADC, 32 ch 2 S/H	—	9	8	8	—	—	2	2	2	2	1
NEW	dsPIC33FJ128GP708*	128	16	6 ch	69	80PT	2 ADC, 24 ch 2 S/H	—	9	8	8	—	—	2	2	2	2	1
NEW	dsPIC33FJ256GP506*	256	16	6 ch	53	64PT	1 ADC, 18 ch	—	9	8	8	—	—	2	2	2	1	1
NEW	dsPIC33FJ256GP710*	256	30	6 ch	85	100PT	2 ADC, 32 ch 2 S/H	—	9	8	8	—	—	2	2	2	2	1

NOTE: dsPIC33 devices with 2 ADCs can achieve 2.2 Msps conversion rate.
***Contact Microchip Technology for availability date.**
Abbreviations are found on the last page of the Selector Guide.

FUTURE dsPIC® DIGITAL SIGNAL CONTROLLER FAMILY PRODUCTS

dsPIC® Digital Signal Controller (DSC) Family																	
Product	**Program (Flash) Kbytes**	**SRAM KBytes**	**DMA**	**I/O Pins (max.)**	**Packages**	**A/D 12-bit 500 ksps**	**A/D 10-bit 1,000 ksps**	**Timer 16-bit**	**Input Cap**	**Output Comp/ Std PWM**	**Motor Control PWM**	**Quad Enc. Interface**	**UART**	**SPI™**	**I^2C™**	**CAN**	**Codec Interface**
dsPIC33F Motor Control Family: 40 MIPS, V_{DD} = 3.3V, Self-Write Flash																	
dsPIC33FJ64MC506	64	8	6 ch	53	64PT	—	1 A/D, 16 ch 4 S/H	9	8	8	8	✓	2	2	2	1	—
dsPIC33FJ64MC510	64	8	6 ch	85	100PT	—	1 A/D, 24 ch 4 S/H	9	8	8	8	✓	2	2	2	1	—
dsPIC33FJ128MC506	128	8	6 ch	53	64PT	—	1 A/D, 16 ch 4 S/H	9	8	8	8	✓	2	2	2	1	—
dsPIC33FJ128MC510	128	8	6 ch	85	100PT	—	1 A/D, 24 ch 4 S/H	9	8	8	8	✓	2	2	2	1	—
dsPIC33FJ128MC710	128	16	6 ch	85	100PT	—	2 A/D, 24 ch 8 S/H	9	8	8	8	✓	2	2	2	2	—
dsPIC33FJ256MC510	256	16	6 ch	85	100PT	—	1 A/D, 16 ch 4 S/H	9	8	8	8	✓	2	2	2	1	—
dsPIC33F General Purpose Family: 40 MIPS, V_{DD} = 3.3V, Self-Write Flash																	
dsPIC33FJ64GP206	64	8	6 ch	53	64PT	1 ADC, 18 ch	—	9	8	8	—	—	2	2	1	0	1
dsPIC33FJ64GP306	64	16	6 ch	53	64PT	1 ADC, 18 ch	—	9	8	8	—	—	2	2	2	0	1
dsPIC33FJ64GP310	64	16	6 ch	85	100PT	1 ADC, 32 ch	—	9	8	8	—	—	2	2	2	0	1
dsPIC33FJ128GP206	128	8	6 ch	53	64PT	1 ADC, 18 ch	—	9	8	8	—	—	2	2	1	0	1
dsPIC33FJ128GP306	128	16	6 ch	53	64PT	1 ADC, 18 ch	—	9	8	8	—	—	2	2	2	0	1
dsPIC33FJ128GP310	128	16	6 ch	85	100PT	1 ADC, 32 ch	—	9	8	8	—	—	2	2	2	0	1
dsPIC33FJ128GP706	128	16	6 ch	53	64PT	2 ADC, 18 ch 2 S/H	—	9	8	8	—	—	2	2	2	2	1
dsPIC33FJ128GP710	128	16	6 ch	85	100PT	2 ADC, 32 ch 2 S/H	—	9	8	8	—	—	2	2	2	2	1
dsPIC33FJ256GP510	256	16	6 ch	85	100PT	1 ADC, 32 ch	—	9	8	8	—	—	2	2	2	1	1

NOTE: dsPIC33 devices with 2 ADCs can achieve 2.2 Msps conversion rate.
Abbreviations are found on the last page of the Selector Guide.

CURRENT ANALOG/INTERFACE PRODUCTS

Lead-free versions of many devices are currently offered. Check Microchip's web site for availability.

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
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	5-pin SC-70
MCP9701	±1	±4	-10 to +125	+3.1 to +5.5	12	Linear Active Thermistor™ IC, Temperature slope: 19.53 mV/°C, cross to MAX6612	5-pin SC-70
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

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: TCN75 idle current is 250 μA. This device also has a Software Shutdown mode that reduces supply current to <1 μA.
3: MCP9805 max. accuracy measured at 85°C.

THERMAL MANAGEMENT PRODUCTS – 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
Serial Output Temperature Sensors (continued)							
MCP9803	±0.5	±1	-55 to +125	+2.7 to +5.5	400	SMBus/I²C™ compatible interface with time out, 0.0625°C to 0.5°C adj. resolution, power-saving one-shot temperature measurement, multi-drop capability	8-Pin MSOP, 8-Pin SOIC
MCP9805	±0.5	±1(3)	-20 to +125	+3.0 to +3.6	400	JEDEC compatible register set, SMBus/I²C™ compatible interface, programmable, shut-down modes and EVENT output	8-Pin TSSOP, 8-Pin 2x3 DFN
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 3x3 DFN
TC74	±0.5	±2	-40 to +125	+2.7 to +5.5	350	SMBus/I²C™ compatible interface, 1°C temperature resolution	5-Pin SOT-23A, 5-Pin TO-220
TCN75A	±0.5	±2	-40 to +125	+2.7 to +5.5	500	SMBus/I²C™ compatible interface, power-saving one-shot temperature measurement, multi-drop capability, 0.0625°C to 0.5°C adjustable temperature resolution	8-Pin SOIC, 8-Pin MSOP
TCN75	±0.5	±2	-55 to +125	+2.7 to +5.5	1,000(2)	SMBus/I²C™ compatible interface, multi-drop capability, interrupt output, 0.5°C temperature resolution	8-Pin MSOP, 8-Pin SOIC

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: TCN75 idle current is 250 µA. This device also has a Software Shutdown Mode that reduces supply current to <1 µA.
3: MCP9805 max. accuracy measured at 85°C.

THERMAL MANAGEMENT PRODUCTS – Brushless DC Fan Controllers and Fan Fault Detectors

Part #	Description	Typical Accuracy (°C)	Maximum Accuracy @ 25°C (°C)	Maximum Temperature Range (°C)	Vcc Range (V)	Maximum Supply Current (µA)	Features	Packages
TC642	Fan Manager	**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	**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	**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	**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	**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

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

Analog/Interface Family Products

THERMAL MANAGEMENT PRODUCTS – Brushless DC Fan Controllers and Fan Fault Detectors (continued)								
Part #	**Description**	**Typical Accuracy (°C)**	**Maximum Accuracy @ 25°C (°C)**	**Maximum Temperature Range (°C)**	**Vcc Range (V)**	**Maximum Supply Current (µA)**	**Features**	**Packages**
TC647B	Fan Manager	**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	**Note 1**	**Note 1**	-40 to +85	+3.0 to +5.5	1,000	Over-temperature alert, auto-shutdown	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
TC648B	Fan Manager	**Note 1**	**Note 1**	-40 to +85	+3.0 to +5.5	400	Over-temperature alert, auto-shutdown, fan auto-restart	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
TC649	Fan Manager	**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	**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	±3	-40 to +125	+2.8 to +5.5	90	Over-temperature alert	8-Pin MSOP
TC651	Fan Manager	±1	±3	-40 to +125	+2.8 to +5.5	90	Over-temperature alert, auto-shutdown	8-Pin MSOP
TC652	Fan Manager	±1	±3	-40 to +125	+2.8 to +5.5	90	FanSense™ Fan Monitor, over-temperature alert	8-Pin MSOP
TC653	Fan Manager	±1	±3	-40 to +125	+2.8 to +5.5	90	FanSense™ Fan Monitor, over-temperature alert, auto-shutdown	8-Pin MSOP
TC654	Dual SMBus Fan Manager	**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	**Note 1**	**Note 1**	-40 to +85	+3.0 to +5.5	320	FanSense™ Fan Monitor, RPM data, over-temperature alert	10-Pin MSOP
TC664	Single SMBus Fan Manager	**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	**Note 1**	**Note 1**	-40 to +85	+3.0 to +5.5	320	FanSense™ Fan Monitor, RPM data, over-temperature alert	10-Pin MSOP
TC670	Predictive Fan Fault Detector	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.

POWER MANAGEMENT – Voltage References							
Part #	**Vcc Range (V)**	**Output Voltage (V)**	**Max. Load Current (mA)**	**Initial Accuracy (max.%)**	**Temperature Coefficient (ppm/°C)**	**Max. 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. IOUT (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	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	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 → VIN	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
TC1016	6.0	1.8, 2.7, 2.8, 3.0	80	-40 to +125	50	150	±0.5	Shutdown	5-Pin SC-70
TC2015	6.0	1.8, 2.7, 2.8, 3.0, 3.3	100	-40 to +125	55	90	±0.4	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	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 → VIN	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	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	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 → VIN	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	Shutdown	5-Pin SOT-23A, 5-Pin SC-70
MCP1700	6.0	1.2, 1.8, 2.5, 3.0, 3.3, 5.0	250	-40 to +125	1.0	300	±0.4	1.0 μF ceramic cap stable, Short-circuit protection	3-Pin TO-92, 3-Pin SOT-23A, 3-Pin SOT-89
MCP1701	10	1.8, 2.5, 3.0, 3.3, 5.0	250	-40 to +85	1.1	380	±0.5	10V max. input voltage	3-Pin SOT-23A, 3-Pin SOT-89, 3-Pin TO-92
MCP1702	12	1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.5, 4.0, 5.0	250	-40 to +125	2	650	±0.4	Ultra-low ground current, 12V VIN max.	3-Pin SOT-23A, 3-Pin SOT-89, 3-Pin TO-92

NOTE 1: Depending on external transistor configuration.
2: Each channel (for Dual and Quad LDOs).
3: LDOs with shutdown (except Power-Management Combination Products as indicated) have typical shutdown currents of 0.05 μA.

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**
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
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		3-Pin TO-220, 3-Pin DDPAK, 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 DDPAK
TC1268	6.0	2.5	500	-40 to +125	80	350	±0.5	Shutdown, Reference bypass input, Error output	8-Pin SOIC
TC1264	6.0	1.8, 2.5, 3.0, 3.3	800	-40 to +125	80	450	±0.5		3-Pin TO-220, 3-Pin DDPAK, 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 DDPAK
TC2117	6.0	1.8, 2.5, 3.0, 3.3	800	-40 to +125	80	600	±0.5		3-Pin SOT-223, 3-Pin DDPAK
1A and Above Low Dropout Linear Regulators									
MCP1726	6.0	Fixed: 5, 3.3, 3, 2.5, 1.8, 1.2, 0.8 Adjustable: 0.8 to 5.0	1000	-40 to +125	140	300	±0.4	Ceramic output capacitor stable, Shutdown, Cdelay, Power Good	8-Pin 3x3 DFN, 8-Pin SOIC
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
Power Management Combination Products									
TC1300(3)	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(3)	6.0	LDO1: 1.5-3.3 LDO2: 1.5-3.3	LDO1: 300 LDO2: 150	-40 to +125	103	LDO1: 104 LDO2: 150	±0.5	Dual LDO plus Reset output, Shutdown, Reference bypass, Voltage detect	8-Pin MSOP, 8-Pin 3x3 DFN
TC1301B(3)	6.0	LDO1: 1.5-3.3 LDO2: 1.5-3.3	LDO1: 300 LDO2: 150	-40 to +125	114	LDO1: 104 LDO2: 150	±0.5	Dual LDO plus Reset, per channel output shutdown, Reference bypass	8-Pin MSOP, 8-Pin 3x3 DFN
TC1302A(3)	6.0	LDO1: 1.5-3.3 LDO2: 1.5-3.3	LDO1: 300 LDO2: 150	-40 to +125	103	LDO1: 104 LDO2: 150	±0.5	Dual LDO, Output shutdown reference bypass, Voltage detect	8-Pin MSOP, 8-Pin 3x3 DFN

NOTE 1: Depending on external transistor configuration.
2: Each channel (for Dual and Quad LDOs).
3: LDOs with shutdown (except Power-Management Combination Products as indicated) have typical shutdown currents of 0.05 μA.

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
Power-Management Combination Products (continued)									
TC1302B[3]	6.0	LDO1: 1.5-3.3 LDO2: 1.5-3.3	LDO1: 300 LDO2: 150	-40 to +125	114	LDO1: 104 LDO2: 150	±0.5	Dual LDO, per channel output shut-down, Reference bypass	8-Pin MSOP, 8-Pin 3x3 DFN
TC1305	6.0	2.5, 2.8, 3.0	150[2]	-40 to +125	120	240	±0.5	Dual LDO plus Reset output, Reference bypass input, Shutdown, Select Mode™ selectable output voltages	10-Pin MSOP
TC1306	6.0	1.8, 2.8, 3.0	150[2]	-40 to +125	120	240	±0.5	Dual LDO plus Reset output, Shutdown, Select Mode™ selectable output voltages	8-Pin MSOP
TC1307[3]	6.0	1.8, 2.5, 2.8, 3.0	150[2]	-40 to +125	220	200	±0.5	Quad LDO plus Reset output, Shutdown, Select Mode™ selectable output voltage	16-Pin QSOP

NOTE 1: Depending on external transistor configuration.
2: Each channel (for Dual and Quad LDOs).
3: LDOs with shutdown (except Power-Management Combination Products as indicated) have typical shutdown currents of 0.05 µA.

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 VIN	-40 to +85	PFM/PWM/LDO	750	825 (PWM) 125 (PFM)	500	UVLO, Auto-switching, LDO	8-Pin MSOP
MCP1612	Synchronous Buck DC/DC Regulator	2.7 to VIN	0.8 to 5.5	-40 to +85	Constant frequency PWM	1400	10,000	1000	Overall efficiency >94% soft start, over-temperature and over-current protection	8-Pin MSOP, 8-Pin 3x3 DFN
MCP1650	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, 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
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 mode	5-Pin SOT-23A
TC120	Step-down Regulator/Controller Combination	1.8 to 10	3.0, 3.3, 5.0	-40 to +85	PFM/PWM	300	52	2,000	Soft-start, Low-Power Shutdown mode	8-Pin SOP
TC125	Step-up DC/DC Regulator	0.9 to 10	3.0, 3.3, 5.0	-40 to +85	PFM	100	20	80	Low-Power Shutdown mode	5-Pin SOT-23A
TC126	Step-up DC/DC Regulator	0.9 to 10	3.0, 3.3, 5.0	-40 to +85	PFM	100	20	80	Feedback voltage sensing	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
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 3x3 DFN

Analog/Interface Family Products

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
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 3x3 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 3x3 DFN

POWER MANAGEMENT – PWM Controllers

Part #	Description	Input Voltage Range (V)	Output Voltage (V)	Operating Temperature Range (°C)	Control Scheme	Switching Frequency (kHz)	Typical Active Supply (µA)	Output Current (mA)	Features	Packages
MCP1630	High-speed PWM to use with PIC® MCUs	2.7 to 5.5	VSS + 0.2V to VDD – 0.2V	-40 to +125	Cycle-by-Cycle DC control	1000	2.5	±10	UVLO, current sense to VEXT, response <25 ns	8-Pin MSOP
MCP1630V	High-speed PWM to use with PIC® MCUs	2.7 to 5.5	VSS + 0.2V to VDD – 0.2V	-40 to +125	Cycle-by-Cycle DC control	1000	2.5	±10	Voltage mode and Average Current mode	8-Pin MSOP

POWER MANAGEMENT – Charge Pump DC-to-DC Converters

Part #	Input Voltage Range (V)	Output Voltage (V)	Operating Temperature Range (°C)	Maximum Input Current(1) (µA)	Typical Active Output Current (mA)	Features	Packages
Inverting or Doubling Charge Pumps							
TC1044S	1.5 to 12	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	160	20	85 kHz oscillator, Boost mode	8-Pin PDIP, 8-Pin SOIC
TC7660	1.5 to 10	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	180	20	10 kHz oscillator	8-Pin PDIP, 8-Pin SOIC
TC7660H	1.5 to 10	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	1,000	20	120 kHz oscillator	8-Pin PDIP, 8-Pin SOIC
TC7660S	1.5 to 12	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	160	20	45 kHz oscillator, Boost mode	8-Pin PDIP, 8-Pin SOIC
TC7662B	1.5 to 15	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	180	20	35 kHz oscillator, Boost mode	8-Pin PDIP, 8-Pin SOIC
TC1219	1.5 to 5.5	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	115	25	12 kHz oscillator, Low-Power Shutdown mode	6-Pin SOT-23A
TC1220	1.5 to 5.5	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	325	25	35 kHz oscillator, Low-Power Shutdown mode	6-Pin SOT-23A
TC1221	1.8 to 5.5	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	600	25	Shutdown, 125 kHz oscillator	6-Pin SOT-23A
TC1222	1.8 to 5.5	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	2,800	25	Shutdown, 750 kHz oscillator	6-Pin SOT-23A
TCM828	1.5 to 5.5	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	90	25	12 kHz oscillator	5-Pin SOT-23A
TCM829	1.5 to 5.5	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	260	25	35 kHz oscillator	5-Pin SOT-23A
TC1240	2.5 to 4.0	VOUT = 2 VIN	-40 to +85	900	40	Shutdown, 160 kHz oscillator	6-Pin SOT-23A
TC1240A	2.5 to 5.5	VOUT = 2 VIN	-40 to +85	900	40	Shutdown, 160 kHz oscillator	6-Pin SOT-23A
TC7662A	3 to 18	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	200	40	12 kHz oscillator	8-Pin PDIP
TC962	3 to 18	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	200	80		8-Pin PDIP, 16-Pin SOIC
TC1121	2.4 to 5.5	VOUT = -VIN or VOUT = 2 VIN	-40 to +85	100	100	Low-Power Shutdown mode	8-Pin MSOP, 8-Pin PDIP, 8-Pin SOIC

NOTE 1: Measured at VDD = 5.0V at 25°C and no load.

POWER MANAGEMENT – Charge Pump DC-to-DC Converters (continued)

Part #	Input Voltage Range (V)	Output Voltage (V)	Operating Temperature Range (°C)	Maximum Input Current(1) (µA)	Typical Active Output Current (mA)	Features	Packages
Multi-Function Charge Pumps							
TCM680	2.0 to 5.5	VOUT = ±2 VIN	-40 to +85	1,000	±10	Generates ±6V from +3V or ±10V from +5V	8-Pin PDIP, 8-Pin SOIC
Inverting and Doubling Charge Pumps							
TC682	2.4 to 5.5	VOUT = -2 VIN	-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 VIN>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 VIN>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 3x3 DFN
MCP1257	1.8 to 3.6	3.3	-40 to +85	100	100	Sleep mode, low battery indication	10-Pin MSOP, 10-Pin 3x3 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 3x3 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 3x3 DFN

NOTE 1: Measured at VDD = 5.0V at 25°C and no load.

POWER MANAGEMENT – CPU/System Supervisors

Part #	VCC Range (V)	Operating Temperature 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	Max. 809 Pinout	3-Pin SOT-23B, 3-Pin SC-70, 3-Pin TO-92	N/A
TC1272	1.2 to 5.5	-40 to +85	4.62, 4.37, 4.12	Active Low	CMOS Push-Pull	200	17		3-Pin SOT-23B	N/A
TC1275	1.2 to 5.5	-40 to +85	3.06, 2.88, 2.55	Active Low	CMOS Push-Pull	200	20		3-Pin SOT-23B	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
TC1270	1.2 to 5.5	-40 to +85	4.63, 4.38, 3.08, 2.93, 2.63, 1.75	Active Low	CMOS Push-Pull	280	7	Manual Reset	4-Pin SOT-143	N/A
TCM811	1.0 to 5.5	-40 to +85	4.63, 4.38, 3.08, 2.93, 2.63, 1.75	Active Low	CMOS Push-Pull	280	6	Manual Reset	4-Pin SOT-143	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
TC1274	1.8 to 5.5	-40 to +85	4.62, 4.37, 4.13	Active High	CMOS Push-Pull	200	17		3-Pin SOT-23B	N/A
TC1277	1.8 to 5.5	-40 to +85	3.06, 2.88, 2.55	Active High	CMOS Push-Pull	200	20		3-Pin SOT-23B	N/A
TCM810	1.2 to 5.5	-40 to +85	4.63, 4.38, 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
TC1271	1.2 to 5.5	-40 to +85	4.63, 4.38, 3.08, 2.93, 2.63, 1.75	Active High	CMOS Push-Pull	280	7	Manual Reset	4-Pin SOT-143	N/A
TCM812	1.1 to 5.5	-40 to +85	4.63, 4.38, 3.08, 2.93, 2.63, 1.75	Active High	CMOS Push-Pull	280	6	Manual Reset	4-Pin SOT-143	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

POWER MANAGEMENT – CPU/System Supervisors (continued)

Part #	Vcc Range (V)	Operating Temperature Range (°C)	Nominal Reset Voltage (V)	Reset Type	Output	Typical Reset Pulse Width (ms)	Typical Supply Current (µA)	Additional Features	Packages	Bond Options
MCP121	1.0 to 5.5	-40 to +125	1.9, 2.32, 2, 63, 2.93, 3.08, 4.38, 4.63	Active Low	Open-drain	120	1		3-Pin SOT-23B, 3-Pin SC-70, 3-Pin TO-92	N/A
TC1273	1.2 to 5.5	-40 to +85	4.62, 4.37, 4.12	Active Low	Open-drain	200	17		3-Pin SOT-23B	N/A
TC1276	1.2 to 5.5	-40 to +85	3.06, 2.88, 2.55	Active Low	Open-drain	200	20		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
TC1279	1.2 to 5.5	-40 to +85	4.62, 4.37, 4.125	Active Low	Open-drain	350	900		3-Pin SOT-23B	N/A
MCP131	1.0 to 5.5	-40 to +125	1.9, 2.32, 2, 63, 2.93, 3.08, 4.38, 4.63	Active Low	Open-drain	120	1	100kΩ Internal Pull-up Resistor	3-Pin SOT-23B, 3-Pin SC-70, 3-Pin TO-92	N/A
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
TC1278	1.2 to 5.5	-40 to +85	4.62, 4.37, 4.125	Active High	Open-drain	350	900		3-Pin SOT-23B	N/A
MCP1316	1.0 to 5.5	-40 to +125	2.9, 4.6	Active Low	CMOS Push-Pull	200	5	Watchdog Input (WDI), Timeout = 1.6 sec., Manual reset	5-Pin SOT-23	N/A
MCP1317	1.0 to 5.5	-40 to +125	2.9, 4.6	Active High	CMOS Push-Pull	200	5	Watchdog Input (WDI), Timeout = 1.6 sec., Manual reset	5-Pin SOT-23	N/A
MCP1318	1.0 to 5.5	-40 to +125	4.6	Active Low/High	CMOS Push-Pull	200	5	Watchdog Input (WDI), Timeout = 1.6 sec.	5-Pin SOT-23	N/A
MCP1319	1.0 to 5.5	-40 to +125	4.6	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	2.9, 4.6	Active Low	Open-drain	200	5	Watchdog Input (WDI), Timeout = 1.6 sec., Manual reset	5-Pin SOT-23	N/A
MCP1321	1.0 to 5.5	-40 to +125	4.6	Active Low	Open-drain/CMOS Push-Pull	200	5	Watchdog Input (WDI), Timeout = 1.6 sec., Manual reset (Active Low Open-drain, Active-High Push-Pull)	5-Pin SOT-23	N/A
MCP1322	1.0 to 5.5	-40 to +125	4.6	Active High	Open-drain/CMOS Push-Pull	200	1	Manual reset, two reset outputs (Active Low Open-drain, Active High Push-Pull)	5-Pin SOT-23	N/A
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

POWER MANAGEMENT – Voltage Detectors

Part #	Vcc Range (V)	Operating Temperature 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

POWER MANAGEMENT – Voltage Detectors (continued)

Part #	VCC Range (V)	Operating Temperature Range (°C)	Nominal Reset Voltage (V)	Reset Type	Output	Minimum Reset Pulse Width (ms)	Typical Supply Current (µA)	Features	Packages
TC51	0.7 to 10	-40 to +85	3.0, 2.7, 2.2	Active Low	Open-drain	50	1	Reset delay	3-Pin SOT-23A
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
TC53	1.5 to 10	-40 to +85	2.9, 2.7, 2.2	Active Low	CMOS Push-Pull or Open-drain	—	1		5-Pin SOT-23A
TC54	0.7 to 10	-40 to +85	7.7, 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 Temperature Range (°C)	Peak Output Current (A)	Output Resistance (R_H/R_L) (Max. Ω @ 25°C)	Max. Supply Voltage (V)	Input/Output Delay (td1, td2)[1] (ns)	Packages
Low-Side Drivers, 0.5A to 1.2A Peak Output Current							
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	11/11	16	30/30	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
TC1411N	Single, Non-inverting	-40 to +85	1	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
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							
TC4403	Single, Non-inverting Floating Load Driver	-40 to +85	1.5	5/5	18	33/38	8-Pin PDIP
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
TC4426	Dual, Inverting	-40 to +125	1.5	10/10	18	20/40	8-Pin PDIP, 8-Pin SOIC, 8-Pin DFN, 8-Pin MSOP
TC4427	Dual, Non-inverting	-40 to +125	1.5	10/10	18	20/40	8-Pin PDIP, 8-Pin SOIC, 8-Pin DFN, 8-Pin MSOP
TC4428	Dual, Inverting and Non-inverting	-40 to +125	1.5	10/10	18	20/40	8-Pin PDIP, 8-Pin SOIC, 8-Pin DFN, 8-Pin MSOP
TC426	Dual, Inverting	-40 to +85	1.5	15/10	18	50/75	8-Pin PDIP, 8-Pin SOIC
TC427	Dual, Non-inverting	-40 to +85	1.5	15/10	18	50/75	8-Pin PDIP, 8-Pin SOIC
TC428	Dual, Inverting and Non-inverting	-40 to +85	1.5	15/10	18	50/75	8-Pin PDIP, 8-Pin SOIC
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

NOTE 1: *t_{D1} = delay time from input low-to-high transition to output transition. t_{D2} = 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)**	**Max. Supply Voltage (V)**	**Input/Output Delay (td1, td2)[1] (ns)**	**Packages**
Low-Side Drivers, 2.0A to 12.0A Peak Output Current							
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
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
TC4423	Dual, Inverting	-40 to +125	3	5/5	18	33/38	8-Pin PDIP, 16-Pin SOIC (W), 8-Pin DFN
TC4424	Dual, Non-inverting	-40 to +125	3	5/5	18	33/38	8-Pin PDIP, 16-Pin SOIC (W), 8-Pin DFN
TC4425	Dual, Inverting and Non-inverting	-40 to +125	3	5/5	18	33/38	8-Pin PDIP, 16-Pin SOIC (W), 8-Pin DFN
TC429	Single, Inverting	-40 to +85	6	2.5/2.5	18	53/60	8-Pin PDIP, 8-Pin DFN, 8-Pin SOIC
TC4420	Single, Non-inverting	-40 to +125	6	2.8/2.5	18	55/55	8-Pin PDIP, 8-Pin SOIC, 5-Pin TO-220, 8-Pin DFN
TC4429	Single, Inverting	-40 to +125	6	2.8/2.5	18	55/55	8-Pin PDIP, 8-Pin SOIC, 5-Pin TO-220, 8-Pin DFN
TC4421	Single, Inverting	-40 to +125	9	1.4 (typ)/1.7	18	30/33	8-Pin PDIP, 5-Pin TO-220, 8-Pin DFN
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 6x5 DFN
TC4422	Single, Non-inverting	-40 to +125	9	1.4 (typ)/1.7	18	30/33	8-Pin PDIP, 5-Pin TO-220, 8-Pin 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 6x5 DFN
TC4451	Single, Inverting	-40 to +125	12	0.6 (typ)/1.5	18	15/15	8-Pin SOIC, 8-Pin PDIP, 8-Pin 6x5 DFN, 5-Pin TO-220, 5-Pin DDPAK
TC4452	Single, Non-inverting	-40 to +125	12	0.6 (typ)/1.5	18	15/15	8-Pin SOIC, 8-Pin PDIP, 8-Pin 6x5 DFN, 5-Pin TO-220, 5-Pin DDPAK
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

NOTE 1: *t_{D1} = delay time from input low-to-high transition to output transition. t_{D2} = delay time from input high-to-low transition to output transition.

POWER MANAGEMENT – Battery Chargers								
Part #	**Mode**	**Cell Type**	**# of Cells**	**V_{CC} Range (V)**	**Max. Voltage Regulation (%)**	**Int/Ext FET**	**Features**	**Packages**
MCP73826	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	±1.0	Ext	Small size	6-Pin SOT-23
MCP73827	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	±1.0	Ext	Mode indicator, Charge Current monitor	8-Pin MSOP
MCP73828	Linear	Li-Ion/Li Polymer	1	4.5 to 5.5	±1.0	Ext	Temperature monitor	8-Pin MSOP

POWER MANAGEMENT – Battery Chargers (continued)

Part #	Mode	Cell Type	# of Cells	Vcc Range (V)	Max. Voltage Regulation (%)	Int/Ext FET	Features	Packages
MCP73831	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	±0.75	Int	UVLO, Thermal regulation, Programmable charge current, 4.2, 4.35, 4.4 and 4.5V VREG options	5-Pin SOT-23, 8-Pin 2x3 DFN
MCP73841	Linear	Li-Ion/Li-Polymer	1	4.5 to 12	±0.5	Ext	Safety charge timers, Temperature monitor	10-Pin MSOP
MCP73842	Linear	Li-Ion/Li-Polymer	2	8.7 to 12	±0.5	Ext	Safety charge timers, Temperature monitor	10-Pin MSOP
MCP73843	Linear	Li-Ion/Li-Polymer	1	4.5 to 12	±0.5	Ext	Safety charge timers	8-Pin MSOP
MCP73844	Linear	Li-Ion/Li-Polymer	2	8.7 to 12	±0.5	Ext	Safety charge timers	8-Pin MSOP
MCP73853	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	±0.5	Int	USB control, Safety charge timers, Temperature monitor, Thermal regulation	16-Pin QFN (4x4)
MCP73855	Linear	Li-Ion/Li-Polymer	1	4.5 to 5.5	±0.5	Int	USB control, Safety charge timers, Thermal regulation	10-Pin DFN (3x3)
MCP73861	Linear	Li-Ion/Li-Polymer	1	4.5 to 12	±0.5	Int	Safety charge timers, Temperature monitor, Thermal regulation	16-Pin 4x4 QFN, 16-Pin SOIC
MCP73862	Linear	Li-Ion/Li-Polymer	2	8.7 to 12	±0.5	Int	Safety charge timers, Temperature monitor, Thermal regulation	16-Pin 4x4 QFN, 16-Pin SOIC
MCP73863	Linear	Li-Ion/Li-Polymer	1	4.5 to 12	±0.5	Int	Safety charge timers, Temperature monitor, Thermal regulation, high-impedance STAT1 output on charge complete	16-Pin 4x4 QFN, 16-Pin SOIC
MCP73864	Linear	Li-Ion/Li-Polymer	2	8.7 to 12	±0.5	Int	Safety charge timers, Temperature monitor, Thermal regulation, high-impedance STAT1 output on charge complete	16-Pin 4x4 QFN, 16-Pin SOIC

POWER MANAGEMENT – Hot Swap Controllers

Part #	Number of Outputs	Vpos to Vneg 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 – Op Amps

Part #	# per Package	GBWP	Iq Typical (µA)	Vos Max (mV)	Input Voltage Noise Density (nV/rtHz)	Operating Voltage (V)	Temp. Range (°C)	Features	Packages
TC1034	1	90 kHz	6	1.5	125(1)	1.8 to 5.5	-40 to +85	Rail-to-Rail Input/Output	5-Pin SOT-23A(R)
TC1035	1	90 kHz	6	1.5	125(1)	1.8 to 5.5	-40 to +85	Rail-to-Rail Input/Output, Shutdown pin	6-Pin SOT-23A(R)
TC1029	2	90 kHz	12	1.5	125(1)	1.8 to 5.5	-40 to +85	Rail-to-Rail Input/Output	8-Pin PDIP, 8-Pin MSOP, 8-Pin SOIC
TC1030	4	90 kHz	5	1.5	125(1)	1.8 to 5.5	-40 to +85	Rail-to-Rail Input/Output, Shutdown pins	16-Pin QSOP
MCP6041	1	14 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	Rail-to-Rail Input/Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP, 5-Pin SOT-23(S)
MCP6042	2	14 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	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	Iq Typical (µA)	Vos Max (mV)	Input Voltage Noise Density (nV/rtHz)	Operating Voltage (V)	Temp. Range (°C)	Features	Packages
MCP6043	1	14 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	Rail-to-Rail Input/Output, Chip Select	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6044	4	14 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	Rail-to-Rail Input/Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6141	1	100 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	Rail-to-Rail Input/Output, G>10 stable	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6142	2	100 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	Rail-to-Rail Input/Output, G>10 stable	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6143	1	100 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	Rail-to-Rail Input/Output, G>10 stable, Chip Select	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6144	4	100 kHz	0.6	3	170(1)	1.4 to 5.5	-40 to +85	Rail-to-Rail Input/Output, G>10 stable	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP606	1	155 kHz	19	0.25	38(1)	2.5 to 5.5	-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	38(1)	2.5 to 5.5	-40 to +85	Rail-to-Rail Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin TSSOP
MCP608	1	155 kHz	19	0.25	38(1)	2.5 to 5.5	-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	38(1)	2.5 to 5.5	-40 to +85	Rail-to-Rail Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP616	1	190 kHz	19	0.15	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	32(1)	2.3 to 5.5	-40 to +85	Rail-to-Rail Output, PNP	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP618	1	190 kHz	19	0.15	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	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	52(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	5-Pin SC-70(U), 5-Pin SOT-23(S,R,U), 8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6232	2	300 kHz	20	5	52(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6234	4	300 kHz	20	5	52(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6241	1	550 kHz	50	5	45(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	5-Pin SC-70(U), 5-Pin SOT-23(S,R,U), 8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6242	2	550 kHz	50	5	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	45(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6001	1	1 MHz	140	4.5	28(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	5-Pin SOT-23(S,R,U), 5-Pin SC-70(R,U)
MCP6002	2	1 MHz	140	4.5	28(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6004	4	1 MHz	140	4.5	28(1)	1.8 to 5.5	-40 to +125	Rail-to-Rail Input/Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6271	1	2 MHz	170	3	20(1)	2.0 to 5.5	-40 to +125	Rail-to-Rail Input/Output	5-Pin SOT-23(S,R), 8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6272	2	2 MHz	170	3	20(1)	2.0 to 5.5	-40 to +125	Rail-to-Rail Input/Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6273	1	2 MHz	170	3	20(1)	2.0 to 5.5	-40 to +125	Rail-to-Rail Input/Output, Chip Select	6-Pin SOT-23(S), 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	Iq Typical (µA)	Vos Max (mV)	Input Voltage Noise Density (nV/rtHz)	Operating Voltage (V)	Temp. Range (°C)	Features	Packages
MCP6274	4	2 MHz	170	3	20(1)	2.0 to 5.5	-40 to +125	Rail-to-Rail Input/Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6275	2	2 MHz	150	3	20(1)	2.0 to 5.5	-40 to +125	Rail-to-Rail Input/Output, Dual connected, Chip Select	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP601	1	2.8 MHz	230	2	29(1)	2.7 to 5.5	-40 to +125	Rail-to-Rail Output	5-Pin SOT-23(S,R),8-Pin PDIP, 8-Pin SOIC, 8-Pin TSSOP
MCP602	2	2.8 MHz	230	2	29(1)	2.7 to 5.5	-40 to +125	Rail-to-Rail Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin TSSOP
MCP603	1	2.8 MHz	230	2	29(1)	2.7 to 5.5	-40 to +125	Rail-to-Rail Output, Chip Select	6-Pin SOT-23(S), 8-Pin PDIP, 8-Pin SOIC, 8-Pin TSSOP
MCP604	4	2.8 MHz	230	2	29(1)	2.7 to 5.5	-40 to +125	Rail-to-Rail Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6281	1	5 MHz	445	3	16(1)	2.2 to 5.5	-40 to +125	Rail-to-Rail Input/Output	5-Pin SOT-23(S,R), 8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6282	2	5 MHz	445	3	16(1)	2.2 to 5.5	-40 to +125	Rail-to-Rail Input/Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6283	1	5 MHz	445	3	16(1)	2.2 to 5.5	-40 to +125	Rail-to-Rail Input/Output, Chip Select	6-Pin SOT-23(S,R), 8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6284	4	5 MHz	445	3	16(1)	2.2 to 5.5	-40 to +125	Rail-to-Rail Input/Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6285	2	5 MHz	400	3	16(1)	2.2 to 5.5	-40 to +125	Rail-to-Rail Input/Output, Dual connected, Chip Select	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6291	1	10 MHz	1000	3	8.7(2)	2.4 to 5.5	-40 to +125	Rail-to-Rail Input/Output	5-Pin SOT-23(S,R), 8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6292	2	10 MHz	1000	3	8.7(2)	2.4 to 5.5	-40 to +125	Rail-to-Rail Input/Output	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6293	1	10 MHz	1000	3	8.7(2)	2.4 to 5.5	-40 to +125	Rail-to-Rail Input/Output, Chip Select	6-Pin SOT-23(S), 8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6294	4	10 MHz	1000	3	8.7(2)	2.4 to 5.5	-40 to +125	Rail-to-Rail Input/Output	14-Pin PDIP, 14-Pin SOIC, 14-Pin TSSOP
MCP6295	2	10 MHz	1100	3	8.7(2)	2.4 to 5.5	-40 to +125	Rail-to-Rail Input/Output, Dual connected, Chip Select	8-Pin PDIP, 8-Pin SOIC, 8-Pin MSOP
MCP6021	1	10 MHz	1000	0.5	8.7(2)	2.5 to 5.5	-40 to +125	Rail-to-Rail Input/Output, 1/2 Vcc VREF	8-Pin PDIP, 8-Pin SOIC, 8-Pin TSSOP
MCP6022	2	10 MHz	1000	0.5	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	8.7(2)	2.5 to 5.5	-40 to +125	Rail-to-Rail Input/Output, Chip Select, 1/2 Vcc VREF	8-Pin PDIP, 8-Pin SOIC, 8-Pin TSSOP
MCP6024	4	10 MHz	1000	0.5	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

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