

Fourth Quarter 2010



## Focus Product Selector Guide

Featuring:

8-, 16- and 32-bit PIC® Microcontrollers

dsPIC® Digital Signal Controllers

Analog & Interface Products

Serial EEPROMs, Serial SRAMs, SST NOR Flash Memory

Wireless and RF Products



Training



Collateral



Development



Support



Design



Availability

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# Microchip: A Partner in Your Success

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## 8-bit PIC® Microcontrollers

Based on a powerful RISC core, the PIC microcontroller 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 include sophisticated timing peripherals, integrated analog-to-digital converters and communications peripherals (Ethernet/I<sup>2</sup>C™/SPI/USB/CAN ports and LIN USARTs). For more information visit: [www.microchip.com/8bit](http://www.microchip.com/8bit)

## 16-bit PIC® Microcontrollers

The 16-bit PIC24 Family is comprised of two sub-families. The PIC24F offers a cost-effective low power step up in performance, memory and peripherals for many applications that are pushing the envelope of 8-bit microcontroller capabilities. For more demanding applications, the PIC24H offers 40 MIPS performance, more memory and additional peripherals, such as CAN communication modules. For more information visit: [www.microchip.com/16bit](http://www.microchip.com/16bit)

## 32-bit PIC® Microcontrollers

The PIC32 family adds more performance and more memory while maintaining pin, peripheral and software compatibility with Microchip's 16-bit MCU/DSC families. The PIC32 family operates at up to 80 MHz and offers ample code and data space capabilities with up to 512 KB Flash and 128 KB RAM. For more information visit: [www.microchip.com/32bit](http://www.microchip.com/32bit)

## dsPIC® Digital Signal Controllers

The dsPIC family of Digital Signal Controllers (DSCs) features a fully implemented digital signal processor (DSP) engine, with up to 40 MIPS non-pipelined performance, C compiler friendly design, and a familiar microcontroller architecture and design environment. The dsPIC 16-bit Flash DSCs provide the industry's highest performance, and have features supporting motor control, digital power conversion, speech and audio, intelligent sensing and general purpose embedded control applications. For more information visit: [www.microchip.com/dsPIC](http://www.microchip.com/dsPIC)

## Analog and Interface Products

Microchip's integrated analog technology, peripherals and features are engineered to meet today's demanding design requirements. Our broad spectrum of analog products addresses

thermal management, power management, battery management, mixed-signal, linear, interface and safety & security solutions. Our broad portfolio of stand-alone analog and interface devices offers highly integrated solutions that combine various analog functions in space-saving packages and support a variety of bus interfaces. Many of these devices support functionality that enhances the analog features currently available on PIC® microcontrollers. For more information visit: [www.microchip.com/analog](http://www.microchip.com/analog)

## RF Front End Products

Microchip's selection of RF Front End devices enhance the performance and operating range of wireless products at 2.4 and 5 GHz. SST Power amplifier products provide high linear output power as required for 802.11 (WiFi®) and 802.15.4 (ZigBee®) standards with industry leading efficiency and reliability. Our selection of integrated Front End Modules (FEM), combines the function of power amplifier with switches, Low Noise Amplifier (LNA) and filters into a single space saving package. The FEM reduces board complexity and sizes. For more information visit:

[www.microchip.com/analog](http://www.microchip.com/analog)

## Wireless Products

Microchip offers radio-frequency products for adding wireless connectivity to embedded PIC microcontroller and dsPIC DSC-based designs for the following technologies: IEEE 802.15.4/ZigBee, Sub-GHz RF and IEEE 802.11/Wi-Fi. For more information visit: [www.microchip.com/wireless](http://www.microchip.com/wireless)

## Memory Products

Microchip's broad portfolio of memory devices include Serial EEPROM, Serial SRAM, Serial Flash and Parallel Flash Devices. Our innovative, low-power designs and extensive testing have ensured industry leading robustness and endurance along with best-in-class quality at low costs. For more information visit: [www.microchip.com/memory](http://www.microchip.com/memory)

## Real-Time Clocks

Microchip offers a family of highly integrated, low cost Real Time Clock/Calendar devices with battery backup capability, digital trimming along with onboard EEPROM and SRAM memory. For more information visit: [www.microchip.com/clock](http://www.microchip.com/clock)

## Table of Contents

8-bit PIC Microcontrollers .....	3	Linear .....	20
16-bit PIC Microcontrollers (PIC24F).....	9	Mixed Signal.....	20
16-bit PIC Microcontrollers (PIC24H) .....	12	Interface .....	21
32-bit PIC Microcontrollers .....	13	Safety & Security .....	21
dsPIC30F DSC Families .....	14	Motor Drivers .....	22
dsPIC33 DSC General Purpose Family.....	15	RF Products .....	22
dsPIC33 DSC Motor Control and Power Conversion Family.....	16	Serial Memory Products.....	23
dsPIC33 DSC SMPS and Digital Power Conversion Family.....	17	Real Time Clock/Calendar (RTCC).....	23
Analog and Interface Products		SST NOR Flash Memory .....	24
Thermal Management .....	18	Wireless Products .....	25
Power Management .....	18	Terms and Definitions .....	25
		Packaging.....	26

# 8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins			Memory				Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement				Digital				Communication				Monitors		Timer 1 Gate	5-ku Pricing†	Packages (Designator)	Special Features			
		Total	IO	Core	Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)	Voltage Range			Maximum Speed	Internal Oscillator	Charge Time Measurement Unit	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECOP	8-bit Timer	16-bit Timer	AUSART	EUSART	IC™					SPI	Ethernet (MACPHY)	FS-USB
PIC10F200	R	6	4	BL	0.375 KB 0.25 Kw	-	-	16	-	2V-5.5V	4 MHz	4 MHz	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	\$0.30	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	Smallest form-factor
PIC10F202	R	6	4	BL	0.75 KB 0.50 Kw	-	-	24	-	2V-5.5V	4 MHz	4 MHz	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	\$0.33	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	Smallest form-factor
PIC10F204	R	6	4	BL	0.375 KB 0.25 Kw	-	-	16	-	2V-5.5V	4 MHz	4 MHz	0	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	\$0.33	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	Smallest form-factor
PIC10F206	R	6	4	BL	0.75 KB 0.50 Kw	-	-	24	-	2V-5.5V	4 MHz	4 MHz	0	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	\$0.36	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	Smallest form-factor
PIC10F220	R	6	4	BL	0.375 KB 0.25 Kw	-	-	16	-	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	2	-	2	-	-	0	-	-	1	-	-	-	-	-	-	-	-	\$0.36	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	Smallest form-factor
PIC10F222	R	6	4	BL	0.75 KB 0.50 Kw	-	-	23	-	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	2	-	2	-	-	0	-	-	1	-	-	-	-	-	-	-	-	\$0.39	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	Smallest form-factor
PIC10F320	NR	6	4	MR	4375 KB 0.25 Kw	✓	✓	32	-	1.8V-5.5V	16 MHz	16 MHz	0	3	-	3	-	-	0	-	-	2	1	-	-	-	-	-	-	-	\$0.39	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	CLC, CWG, DDS, Temp*
PIC10F322	NR	6	4	MR	0.875 KB 0.50 Kw	✓	✓	64	-	1.8V-5.5V	16 MHz	16 MHz	0	3	-	3	-	-	0	-	-	2	1	-	-	-	-	-	-	-	\$0.42	PDIP (P), 2x3 DFN (MC), SOT-23 (OT)	CLC, CWG, DDS, Temp*
PIC12F508	R	8	6	BL	0.875 KB 0.50 Kw	-	-	25	-	2V-5.5V	4 MHz	4 MHz	0	-	-	-	-	-	0	-	-	1	-	-	-	-	-	-	-	-	\$0.41	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	-
PIC12F509	R	8	6	BL	1.5 KB 1 Kw	-	-	41	-	2V-5.5V	4 MHz	4 MHz	0	-	-	-	-	-	0	-	-	1	-	-	-	-	-	-	-	-	\$0.45	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	-
PIC12F510	R	8	6	BL	1.5 KB 1 Kw	-	-	38	-	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	3	-	3	-	-	1	-	-	1	-	-	-	-	-	-	-	-	\$0.49	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	-
PIC12F519	R	8	6	BL	1.5 KB 1 Kw	-	-	41	64	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	-	-	-	-	-	0	-	-	1	-	-	-	-	-	-	-	-	\$0.49	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	Lowest cost Data EE
PIC12F609	R	8	6	MR	1.75 KB 1 Kw	-	-	64	-	2V-15V	20 MHz	4 MHz, 8 MHz	0	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	\$0.52	PDIP (P), SOIC (SN), MSOP (MS), 4x4 DFN (MD), 3x3 DFN (MF)	-
PIC12F615	R	8	6	MR	1.75 KB 1 Kw	-	-	64	-	2V-15V	20 MHz	4 MHz, 8 MHz	0	4	-	-	-	-	1	-	-	2	1	-	-	-	-	-	-	-	\$0.55	PDIP (P), SOIC (SN), MSOP (MS), 4x4 DFN (MD), 3x3 DFN (MF)	-
PIC12F617	R	8	6	MR	3.5 KB 2 Kw	✓	✓	128	-	2V-5.5V	20 MHz	4 MHz, 8 MHz	0	4	-	-	-	-	1	-	-	1	2	1	-	-	-	-	-	-	\$0.59	PDIP (P), SOIC (SN), MSOP (MS), 3x3 DFN (MF)	-
PIC12F629	R	8	6	MR	1.75 KB 1 Kw	-	-	64	128	2V-5.5V	20 MHz	4 MHz	0	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	\$0.70	PDIP (P), SOIC (SN), 4x4 DFN (MD), 6x5 DFN (MF)	-
PIC12F1822	R	8	6	EMR	3.5 KB 2 Kw	✓	✓	128	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	4	-	-	-	-	1	-	-	1	2	1	-	-	-	-	-	-	\$0.73	PDIP (P), SOIC (SN), 3x3 DFN (MF)	XLP, Temp*
PIC12F675	R	8	6	MR	1.75 KB 1 Kw	-	-	64	128	2V-5.5V	20 MHz	4 MHz	0	3	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	\$0.77	PDIP (P), SOIC (SN), 4x4 DFN (MD), 6x5 DFN (MF)	-
PIC12F635	R	8	6	MR	1.75 KB 1 Kw	-	-	64	128	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	\$0.84	PDIP (P), SOIC (SN), 4x4 DFN (MD)	KeefLo®
PIC12F683	R	8	6	MR	3.5 KB 2 Kw	-	-	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	3	-	-	-	-	1	-	-	2	1	-	-	-	-	-	-	-	\$0.91	PDIP (P), SOIC (SN), 4x4 DFN (MD)	-
PIC12F752	NR	8	6	MR	1.75 KB 1 Kw	-	-	64	-	2V-5.5V	20 MHz	4 MHz, 8 MHz	0	4	-	-	-	-	2	-	-	3	1	-	-	-	-	-	-	-	\$0.90	PDIP (P), SOIC (SN), 3x3 DFN (MF)	CWG
PIC16F505	R	14	12	BL	1.5 KB 1 Kw	-	-	72	-	2V-5.5V	20 MHz	4 MHz	0	-	-	-	-	-	0	-	-	1	-	-	-	-	-	-	-	-	\$0.48	PDIP (P), SOIC (SL), TSSOP (ST), 3x3 QFN (MG)	-
PIC16F506	R	14	12	BL	1.5 KB 1 Kw	-	-	67	-	2V-5.5V	20 MHz	4/8 MHz	0	4	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	\$0.52	PDIP (P), SOIC (SL), TSSOP (ST), 3x3 QFN (MG)	-
PIC16F526	R	14	12	BL	1.5 KB 1 Kw	-	-	67	64	2V-5.5V	20 MHz	4/8 MHz	0	4	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	\$0.55	PDIP (P), SOIC (SL), TSSOP (ST), 3x3 QFN (MG)	Lowest cost Data EE
PIC16F810	R	14	12	MR	1.75 KB 1 Kw	-	-	64	-	2V-15V	20 MHz	4/8 MHz	0	-	-	-	-	-	2	-	-	1	1	-	-	-	-	-	-	-	\$0.59	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	-
PIC16F816	R	14	12	MR	3.5 KB 2 Kw	-	-	128	-	2V-15V	20 MHz	4/8 MHz	0	8	-	-	-	-	2	-	-	1	2	1	-	-	-	-	-	-	\$0.69	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	-
PIC16F1823	R	14	12	EMR	3.5 KB 2 Kw	✓	✓	128	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	8	-	-	-	-	2	-	-	1	2	1	-	-	-	-	-	-	\$0.78	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	XLP, Temp*
PIC16F1824	R	14	12	EMR	7 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	8	-	-	-	-	2	2	2	2	4	1	-	-	-	-	-	-	\$0.84	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	DSM, XLP, Temp*
PIC16F630	R	14	12	MR	1.75 KB 1 Kw	-	-	64	128	2V-5.5V	20 MHz	4 MHz	0	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	\$0.91	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	-
PIC16F836	R	14	12	MR	3.5 KB 2 Kw	-	-	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	-	-	-	-	-	2	-	-	1	1	-	-	-	-	-	-	-	\$0.92	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	KeefLo®
PIC16F1825	NR	14	12	EMR	14 KB 8 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	8	-	-	-	-	2	2	2	2	4	1	-	-	-	-	-	-	\$0.92	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	DSM, XLP, Temp*

Products sorted by pin count followed by pricing.  
 † - Pricing subject to change; please contact your Microchip representative for most current pricing.  
 ◊ - Software PLVD implemented via ADC.  
 \*Reference Application Note AN1333 for temperature indicator implementation.



8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins		Core	Memory				Operating Speed		LCD Segments	Analog Sensing & Measurement				Digital				Communication				Monitors		5-ku Pricing*	Packages (Designator)	Special Features							
		Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)	Voltage Range		Maximum Speed	Internal Oscillator	mTouch™ Channels	Charge Time Measurement Unit	8-bit ADC	10-bit ADC	12-bit ADC	Compass	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART	EUSART				I <sup>2</sup> C™	SPI	Ethernet (MACPHY)	FSUSB	ECAN	BOR/BOR	PLVD
PIC16F1516	R	NR	28	25	EMR	14 KB 8 Kw	✓	✓	512	-	1.8V-5.5V	20 MHz	16 MHz	0	17	-	-	17	-	-	2	-	2	1	-	1	1	1	-	-	-	-	0.95	SPDIP (SP), SSOP (SS), SOIC (SO), 4x4 UQFN (MV)	XLP, Temp*
PIC16F1518	R	NR	28	25	EMR	28 KB 16 Kw	✓	✓	1024	-	1.8V-5.5V	20 MHz	16 MHz	0	17	-	-	17	-	-	2	-	2	1	-	1	1	1	-	-	-	-	1.01	SPDIP (SP), SSOP (SS), SOIC (SO), 4x4 UQFN (MV)	XLP, Temp*
PIC16F882	R	R	28	25	MR	3.5 KB 2 Kw	✓	✓	128	128	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	11	-	-	11	-	-	2	1	1	2	1	-	1	1	1	-	-	-	1.16	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	-
PIC16F726	R	R	28	25	MR	14 KB 8 Kw	✓	✓	368	-	1.8V-5.5V	20 MHz	16 MHz	0	11	-	11	-	-	0	2	-	2	1	1	-	1	1	1	-	-	-	1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP, Temp*
PIC16F1933	R	R	28	25	EMR	7 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	60	11	-	-	11	-	-	2	2	3	4	1	-	1	1	1	-	-	-	1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP, Temp*
PIC18F23K20	R	R	28	25	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	11	-	-	11	-	-	2	1	1	1	3	-	1	1	1	-	-	-	1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP
PIC16F1936	R	R	28	25	EMR	14 KB 8 Kw	✓	✓	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	60	11	-	-	11	-	-	2	2	3	4	1	-	1	1	1	-	-	-	1.30	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP, Temp*
PIC18F24K20	R	R	28	25	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	11	-	-	11	-	-	2	1	1	1	3	-	1	1	1	-	-	-	1.30	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	XLP
PIC16F883	R	R	28	25	MR	7 KB 4 Kw	✓	✓	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	11	-	-	11	-	-	2	1	1	2	1	-	1	1	1	-	-	-	1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	-
PIC16F1938	R	R	28	25	EMR	28 KB 16 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	60	11	-	-	11	-	-	2	2	3	4	1	-	1	1	1	-	-	-	1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP, Temp*
PIC18F25K20	R	R	28	25	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	11	-	-	11	-	-	2	1	1	1	3	-	1	1	1	-	-	-	1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	XLP
PIC18F23K22	R	R	28	25	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	17	✓	-	17	-	-	2	1	1	1	3	-	2	2	2	-	-	-	1.41	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP, Temp*
PIC18F24J10	R	R	28	21	PIC18	16 KB 8 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	32 kHz	0	10	-	-	10	-	-	2	2	-	1	2	-	1	1	1	-	-	-	1.44	SPDIP (SP), SOIC (SO), OFN (ML)	-
PIC18F24K22	R	R	28	25	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	17	✓	-	17	-	-	2	1	1	1	3	-	2	2	2	-	-	-	1.48	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP, Temp*
PIC16F886	R	R	28	25	MR	14 KB 8 Kw	✓	✓	368	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	11	-	-	11	-	-	2	1	1	2	1	-	1	1	1	-	-	-	1.49	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	-
PIC18F25J10	R	R	28	21	PIC18	32 KB 16 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	32 kHz	0	10	-	-	10	-	-	2	2	-	1	2	-	1	1	1	-	-	-	1.58	SPDIP (SP), SOIC (SO), OFN (ML)	-
PIC18F25K22	R	R	28	25	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	17	✓	-	17	-	-	2	2	3	3	4	-	2	2	2	-	-	-	1.62	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	XLP, Temp*
PIC18F24J11	R	R	28	21	PIC18	16 KB 8 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	-	-	2	2	-	2	3	-	2	2	2	-	-	-	1.65	SPDIP (SP), SOIC (SO), OFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F26K20	R	R	28	25	PIC18	64 KB 32 Kw	✓	✓	3936	1024	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	11	-	-	11	-	-	2	1	1	1	3	-	1	1	1	-	-	-	1.65	SPDIP (SP), SOIC (SO), OFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F25J11	R	R	28	21	PIC18	32 KB 16 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	-	-	2	2	-	2	3	-	2	2	2	-	-	-	1.79	SPDIP (SP), SOIC (SO), OFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F24J50	R	R	28	22	PIC18	16 KB 8 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	-	-	2	-	2	2	3	-	2	2	2	-	1	-	1.86	SPDIP (SP), SOIC (SO), OFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F26K22	R	R	28	25	PIC18	64 KB 32 Kw	✓	✓	3896	1024	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	17	✓	-	17	-	-	2	2	3	3	4	-	2	2	2	-	-	-	1.92	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	XLP, Temp*
PIC18F25K90	R	NR	28	24	PIC18	32 KB 16 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	8	✓	-	8	2	4	1	2	3	-	2	1	1	-	-	-	1	1.93	SPDIP (SP), SOIC (SO), OFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
PIC18F25J50	R	R	28	22	PIC18	32 KB 16 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	-	-	2	-	2	2	3	-	2	2	2	-	1	-	2.00	SPDIP (SP), SOIC (SO), OFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F26J11	R	R	28	21	PIC18	64 KB 32 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	-	-	2	-	2	2	3	-	2	2	2	-	-	-	2.07	SPDIP (SP), SOIC (SO), OFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F26K30	R	NR	28	24	PIC18	64 KB 32 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	8	✓	-	8	2	4	1	2	3	-	2	1	1	-	-	-	1	2.21	SPDIP (SP), SOIC (SO), OFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
PIC18F2450	R	R	28	23	PIC18	16 KB 8 Kw	✓	✓	768	-	2V-5.5V	48 MHz	32 kHz	0	-	-	-	10	-	-	0	1	-	1	2	-	1	-	-	-	-	1	2.23	SPDIP (SP), SOIC (SO), OFN (ML)	USB 2.0 (Full Speed)
PIC18F26J13	R	R	28	23	PIC18	64 KB 32 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	3	7	3	4	4	-	2	2	2	-	-	-	-	2.24	SPDIP (SP), SOIC (SO), OFN (ML)	SPI w/DMA, XLP	
PIC18F26J50	R	R	28	22	PIC18	64 KB 32 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	-	-	2	-	2	2	3	-	2	2	2	-	1	-	2.28	SPDIP (SP), SOIC (SO), OFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F26J53	R	R	28	22	PIC18	64 KB 32 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	10	3	7	3	4	4	-	2	2	2	-	1	-	-	2.45	SPDIP (SP), SOIC (SO), OFN (ML)	USB 2.0 (Full Speed), SPI w/DMA, XLP	

Products sorted by pin count followed by pricing.  
 † - Pricing subject to change; please contact your Microchip representative for most current pricing.  
 ◊ - Software PLVD implemented via ADC.  
 \*Reference Application Note AN1333 for temperature indicator implementation.

## 8-bit PIC<sup>®</sup> Microcontrollers

Product	Released (R) Not Released (NR)	Pins		Core	Memory				Operating Speed		Analog Sensing & Measurement				Digital				Communication				Monitors		Timer & Gate	5-vu Pricing*	Packages (Designator)	Special Features											
		Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)	Voltage Range	Maximum Speed	Internal Oscillator	LCD Segments	mTouch <sup>™</sup> Channels	Charge Time Measurement Unit	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECSP	8-bit Timer	16-bit Timer	AUSART					ELUSART	FC <sup>™</sup>	SPI	Ethernet (MACPHI)	FS/USB	ECAN	BOR/PBOR	PLVD	SR Latch		
PIC18F27J13	R	28	23	PIC18	128 KB 64 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	-	10	3	7	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.48	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	SPI w/DMA, XLP	
PIC18F27J53	R	28	22	PIC18	128 KB 64 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	10	✓	-	-	10	3	7	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.69	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), SPI w/DMA, XLP	
PIC18F2550	R	28	24	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	10	-	-	10	-	2	2	-	1	3	-	1	1	1	-	1	-	-	-	-	-	-	\$3.44	PDIP (P), SPDIP (SP), SOIC (SO)	USB 2.0 (Full Speed)	
PIC18F2553	R	28	24	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	-	-	-	10	-	2	2	-	1	3	-	1	1	1	-	1	-	-	-	-	-	-	\$4.12	SPDIP (SP), SOIC (SO)	USB 2.0 (Full Speed)	
PIC16F59	R	40	32	BL	3 KB 2 Kw	-	-	134	-	2V-5.5V	20 MHz	0	0	-	-	-	-	0	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0.85	PDIP (P), TOFF (PT)	-	
PIC16LF1906	NR	40	36	EMR	7 KB 4 Kw	✓	✓	256	-	1.8V-3.6V	20 MHz	16 MHz	116	14	-	-	14	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	\$1.19	PDIP (P), TOFF (PT), 5x5 UQFN (MV)	Integrated LCD Driver, XLP Temp <sup>†</sup>	
PIC16LF1907	NR	40	36	EMR	14 KB 8 Kw	✓	✓	512	-	1.8V-3.6V	20 MHz	16 MHz	116	14	-	-	14	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	\$1.25	PDIP (P), TOFF (PT), 5x5 UQFN (MV)	Integrated LCD Driver, XLP Temp <sup>†</sup>	
PIC16F1517	NR	40	36	EMR	14 KB 8 Kw	✓	✓	512	-	1.8V-5.5V	20 MHz	16 MHz	0	28	-	-	28	-	-	2	-	2	1	-	1	1	1	-	-	-	-	-	-	-	-	\$1.32	PDIP (P), TOFF (PT), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC16F1519	NR	40	36	EMR	28 KB 16 Kw	✓	✓	1024	-	1.8V-5.5V	20 MHz	16 MHz	0	28	-	-	28	-	-	2	-	2	1	-	1	1	1	-	-	-	-	-	-	-	-	\$1.37	PDIP (P), TOFF (PT), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC16F724	R	40	36	MR	7 KB 4 Kw	✓	-	192	-	1.8V-5.5V	20 MHz	16 MHz	0	16	-	14	-	-	0	2	-	2	1	1	-	1	1	-	-	-	-	-	-	-	-	\$1.40	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC16F1934	R	40	36	EMR	7 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	16	-	-	14	-	2	2	3	4	1	-	1	1	1	-	-	-	-	-	-	-	-	\$1.47	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC18F43K20	R	40	36	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	14	-	-	14	-	2	1	1	1	3	-	1	1	1	-	-	-	-	-	-	-	-	\$1.47	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP	
PIC16F727	R	40	36	MR	14 KB 8 Kw	✓	-	368	-	1.8V-5.5V	20 MHz	16 MHz	0	16	-	14	-	-	0	2	-	2	1	1	-	1	1	-	-	-	-	-	-	-	-	\$1.54	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC16F1937	R	40	36	EMR	14 KB 8 Kw	✓	✓	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	16	-	-	14	-	2	2	3	4	1	-	1	1	1	-	-	-	-	-	-	-	-	\$1.54	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC18F44K20	R	40	36	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	14	-	-	14	-	2	1	1	1	3	-	1	1	1	-	-	-	-	-	-	-	-	-	\$1.54	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP
PIC16F1939	R	40	36	EMR	28 KB 16 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	16	-	-	14	-	2	2	3	4	1	-	1	1	1	-	-	-	-	-	-	-	-	\$1.61	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC18F45K20	R	40	36	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	14	-	-	14	-	2	1	1	1	3	-	1	1	1	-	-	-	-	-	-	-	-	-	\$1.61	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP
PIC16F884	R	40	36	MR	7 KB 4 Kw	✓	✓	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	14	-	-	14	-	2	1	1	2	1	-	1	1	1	-	-	-	-	-	-	-	-	-	\$1.63	PDIP (P), TOFF (PT), 8x8 QFN (ML)	-
PIC18F44J10	R	40	32	PIC18	16 KB 8 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	31 kHz	0	13	-	-	13	-	2	1	1	1	2	-	1	2	2	-	-	-	-	-	-	-	-	-	\$1.67	PDIP (P), TOFF (PT), QFN (ML)	-
PIC18F43K22	R	40	36	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	28	✓	-	28	-	2	1	1	1	3	-	2	2	2	-	-	-	-	-	-	-	-	-	\$1.68	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>
PIC18F44K22	R	40	36	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	28	✓	-	28	-	2	1	1	1	3	-	2	2	2	-	-	-	-	-	-	-	-	-	\$1.75	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>
PIC16F887	R	40	36	MR	14 KB 8 Kw	✓	✓	368	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	14	-	-	14	-	2	1	1	2	1	-	1	1	1	-	-	-	-	-	-	-	-	-	\$1.78	PDIP (P), TOFF (PT), 8x8 QFN (ML)	-
PIC18F45J10	R	40	32	PIC18	32 KB 16 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	31 kHz	0	13	-	-	13	-	2	1	1	1	2	-	1	2	2	-	-	-	-	-	-	-	-	-	\$1.81	PDIP (P), TOFF (PT), QFN (ML)	-
PIC18F46K20	R	40	36	PIC18	64 KB 32 Kw	✓	✓	3896	1024	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	14	-	-	14	-	2	1	1	1	3	-	1	1	1	-	-	-	-	-	-	-	-	-	\$1.82	PDIP (P), TOFF (PT), 8x8 QFN (ML)	XLP
PIC18F45K22	R	40	36	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	28	✓	-	28	-	2	2	2	3	4	-	2	2	2	-	-	-	-	-	-	-	-	-	\$1.89	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>
PIC18F44J11	R	40	34	PIC18	8 KB 4 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	-	2	-	2	2	3	-	2	2	2	-	-	-	-	-	-	-	-	\$1.95	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP	
PIC18F45J11	R	40	34	PIC18	32 KB 16 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	-	2	-	2	2	3	-	2	2	2	-	-	-	-	-	-	-	-	\$2.09	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP	
PIC18F44J50	R	40	34	PIC18	16 KB 8 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	-	2	-	2	2	3	-	2	2	2	-	1	-	-	-	-	-	-	\$2.16	TQFP (PT), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP	
PIC18F45K30	NR	4044	35	PIC18	32 KB 16 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	15	✓	-	15	-	2	4	1	2	3	-	2	1	1	-	-	1	-	-	-	-	-	\$2.17	PDIP (P), TOFF (PT), QFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
PIC18F46K22	R	40	36	PIC18	64 KB 32 Kw	✓	✓	3896	1024	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	28	✓	-	28	-	2	2	2	3	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.17	PDIP (P), TOFF (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP Temp <sup>†</sup>	
PIC18F45J50	R	40	34	PIC18	32 KB 16 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	-	2	-	2	2	3	-	2	2	2	-	1	-	-	-	-	-	-	\$2.30	TQFP (PT), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP	

Products sorted by pin count followed by pricing.  
† - Pricing subject to change; please contact your Microchip representative for most current pricing.  
◊ - Software PLVD implemented via ADC.  
\*Reference Application Note AN1333 for temperature indicator implementation.

## 8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins			Core	Memory				Operating Speed			LCD Segments	mTouch™ Channels	Analog Sensing & Measurement					Digital					Communication					Monitors		Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features			
		Total	I/O	IO		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)	Voltage Range	Maximum Speed			Internal Oscillator	Charge Time Measurement Unit	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECOP	8-bit Timer	16-bit Timer	AUSART	EUSART	IC™	SPI	Ethernet (MACPHY)	FS-LBS	ECAN					BOR/PBOR	PLVD	SR-Latch
PIC18F46J11	R	40	34	PIC18	64 KB 32 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	-	0	1	-	1	2	-	1	-	-	-	-	-	-	-	-	-	-	\$2.37	PDIP (P), TOFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F4450	R	40	34	PIC18	16 KB 8 Kw	✓	✓	788	-	2V-5.5V	48 MHz	31 kHz	0	13	✓	-	13	-	0	1	-	1	2	-	1	-	-	-	-	-	-	-	-	-	-	\$2.39	PDIP (P), TOFP (PT), QFN (ML)	USB 2.0 (Full Speed)
PIC18F46K30	NR	40/44	35	PIC18	64 KB 32 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	15	✓	-	15	2	4	1	2	3	-	2	1	1	-	-	-	-	-	-	-	-	\$2.45	PDIP (P), TOFP (PT), QFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
PIC18F46J13	R	44	34	PIC18	64 KB 32 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	3	7	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.52	TOFP (PT), QFN (ML)	SPI w/DMA, XLP	
PIC18F46J50	R	40	34	PIC18	64 KB 32 Kw	✓	✓	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	-	2	-	2	2	3	-	2	2	2	-	-	-	-	-	-	-	\$2.58	PDIP (P), TOFP (PT), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP	
PIC18F46J53	R	44	33	PIC18	64 KB 32 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	3	7	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.73	TOFP (PT), QFN (ML)	Integrated LCD Driver, SPI w/DMA, XLP	
PIC18F47J13	R	44	34	PIC18	128 KB 64 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	3	7	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.76	TOFP (PT), QFN (ML)	SPI w/DMA, XLP	
PIC18F47J53	R	44	33	PIC18	128 KB 64 Kw	✓	✓	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	13	✓	-	13	3	7	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.97	TOFP (PT), QFN (ML)	Integrated LCD Driver, SPI w/DMA, XLP	
PIC18F4550	R	40	35	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	13	-	-	13	-	2	1	1	1	3	-	1	1	1	-	-	-	-	-	-	-	\$3.65	PDIP (P), TOFP (PT), QFN (ML)	USB 2.0 (Full Speed)	
PIC18F4523	R	40	36	PIC18	32 KB 16 Kw	✓	✓	1536	256	2V-5.5V	40 MHz	8 MHz, 31 kHz	0	13	-	-	13	2	1	1	1	3	-	1	1	1	-	-	-	-	-	-	-	-	\$3.67	PDIP (P), TOFP (PT), QFN (ML)	-	
PIC18F4553	R	40	35	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	13	-	-	13	2	1	1	1	3	-	1	1	1	-	-	-	-	-	-	-	-	\$4.33	PDIP (P), TOFP (PT), QFN (ML)	USB 2.0 (Full Speed)	
PIC16F1526	NR	64	54	EMR	14 KB 8 Kw	✓	✓	788	-	1.8V-5.5V	20 MHz	16 MHz	0	30	-	-	30	-	-	10	-	6	3	-	2	2	2	-	-	-	-	-	-	-	-	\$1.47	TOFP (PT), QFN (MR)	XLP, Temp*
PIC16F1527	NR	64	54	EMR	28 KB 16 Kw	✓	✓	1536	-	1.8V-5.5V	20 MHz	16 MHz	0	30	-	-	30	-	-	10	-	6	3	-	2	2	2	-	-	-	-	-	-	-	-	\$1.54	TOFP (PT), QFN (MR)	XLP, Temp*
PIC16F1946	R	64	53	EMR	14 KB 8 Kw	✓	✓	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	184	17	-	-	17	-	3	2	3	4	1	-	2	2	2	-	-	-	-	-	-	-	\$1.75	TOFP (PT), QFN (MR)	XLP, Temp*	
PIC16F1947	R	64	53	EMR	28 KB 16 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	184	17	-	-	17	-	3	2	3	4	1	-	2	2	2	-	-	-	-	-	-	-	\$1.82	TOFP (PT), QFN (MR)	XLP, Temp*	
PIC18F63J11	R	64	54	PIC18	8 KB 4 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	12	-	-	12	-	2	2	-	1	3	1	1	1	1	-	-	-	-	-	-	-	\$2.20	TOFP (PT)	-	
PIC18F65J10	R	64	50	PIC18	32 KB 16 Kw	✓	✓	2048	-	2V-3.6V	40 MHz	31 kHz	0	11	-	-	11	-	2	2	3	2	3	-	2	2	2	-	-	-	-	-	-	-	\$2.25	TOFP (PT)	-	
PIC18F64J11	R	64	54	PIC18	16 KB 8 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	12	-	-	12	-	2	2	-	1	3	1	1	1	1	-	-	-	-	-	-	-	\$2.27	TOFP (PT)	-	
PIC18F63J90	R	64	51	PIC18	8 KB 4 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	12	-	-	12	-	2	2	-	1	3	1	1	1	1	-	-	-	-	-	-	-	\$2.35	TOFP (PT)	Integrated LCD Driver	
PIC18F65J11	R	64	54	PIC18	32 KB 16 Kw	✓	✓	2048	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	12	-	-	12	-	2	2	-	1	3	1	1	1	1	-	-	-	-	-	-	-	\$2.37	TOFP (PT)	-	
PIC18F65K22	R	64	53	PIC18	32 KB 16 Kw	✓	✓	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	0	16	✓	-	16	3	5	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.39	QFN (MR), TOFP (PT)	XLP	
PIC18F64J90	R	64	51	PIC18	16 KB 8 Kw	✓	✓	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	12	-	-	12	-	2	2	-	1	3	1	1	1	1	-	-	-	-	-	-	-	\$2.41	TOFP (PT)	Integrated LCD Driver	
PIC18F66J10	R	64	50	PIC18	64 KB 32 Kw	✓	✓	2048	-	2V-3.6V	40 MHz	31 kHz	0	11	-	-	11	-	2	2	3	2	3	-	2	2	2	-	-	-	-	-	-	-	\$2.49	TOFP (PT)	-	
PIC18F65J90	R	64	50	PIC18	32 KB 16 Kw	✓	✓	2048	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	12	-	-	12	-	2	2	-	1	3	1	1	1	1	-	-	-	-	-	-	-	\$2.52	TOFP (PT)	Integrated LCD Driver	
PIC18F65K30	R	64	53	PIC18	32 KB 16 Kw	✓	✓	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	16	✓	-	16	3	5	3	4	4	-	2	2	2	-	-	-	-	-	-	-	-	\$2.53	QFN (MR), TOFP (PT)	Integrated LCD Driver, XLP	
PIC18F65J50	R	64	49	PIC18	32 KB 16 Kw	✓	✓	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	8	-	-	8	-	2	2	3	2	3	-	2	2	2	-	-	-	-	-	-	-	\$2.63	TOFP (PT)	USB 2.0 (Full Speed)	
PIC18F66J11	R	64	50	PIC18	64 KB 32 Kw	✓	✓	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	11	-	-	11	-	2	2	3	2	3	-	2	2	2	-	-	-	-	-	-	-	\$2.63	TOFP (PT)	-	
PIC18F66J90/3	R	64	51	PIC18	64 KB 32 Kw	✓	✓	3900	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	132	12	✓	-	12	2	2	-	1	3	1	1	1	1	-	-	-	-	-	-	-	-	\$2.70	TOFP (PT)	Integrated LCD Driver, RTCC	
PIC18F65K30	NR	64	54	PIC18	32 KB 16 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	15	✓	-	15	2	4	1	2	3	-	2	1	1	1	-	-	-	-	-	-	-	\$2.70	TOFP (PT), QFN (MR)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
PIC18F66K22	R	64	53	PIC18	64 KB 32 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	0	16	✓	-	16	3	7	3	6	5	-	2	2	2	-	-	-	-	-	-	-	-	\$2.70	QFN (MR), TOFP (PT)	XLP	
PIC18F67J10	R	64	50	PIC18	128 KB 64 Kw	✓	✓	3936	-	2V-3.6V	40 MHz	31 kHz	0	11	-	-	11	-	2	2	3	2	3	-	2	2	2	-	-	-	-	-	-	-	\$2.77	TOFP (PT)	-	

Products sorted by pin count followed by pricing.  
 † - Pricing subject to change; please contact your Microchip representative for most current pricing.  
 ◊ - Software PLVD implemented via ADC.  
 \*Reference Application Note AN1333 for temperature indicator implementation.





## 8-bit PIC<sup>®</sup> Microcontrollers

Product	Released (R) Not Released (NR)	Pins		Core	Memory				Operating Speed		Analog Sensing & Measurement				Digital				Communication				Monitors		Packages (Designator)	Special Features												
		Total	IO		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)	Voltage Range	Maximum Speed	Internal Oscillator	LCD Segments	mTouch <sup>™</sup> Channels	Charge Time Measurement Unit	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART			ELUSART	IC <sup>™</sup>	SPI	Ethernet (MACPHY)	FS-USB	ECAN	BOR/BOR	PLVD	SR-Latch	Timer1 Gate	5 ku Prong <sup>†</sup>	
PIC18F87K90	NR	80	69	PIC18	128 KB 64 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	24	✓	-	-	12	2	2	3	2	3	-	2	2	2	-	1	-	BOR	✓	-	-	\$3.35	TQFP (PT)	Integrated LCD Driver, XLP	
PIC18F87J50	R	80	65	PIC18	128 KB 64 Kw	✓	✓	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	-	-	-	12	-	2	2	3	2	3	-	2	2	2	-	1	-	BOR	✓	-	-	\$3.44	TQFP (PT)	USB 2.0 (Full Speed)	
PIC18F86J60	R	80	55	PIC18	64 KB 32 Kw	✓	✓	3808	-	2V-3.6V	42 MHz	31 kHz	0	-	-	-	15	-	2	2	3	2	3	-	2	1	1	1	-	1	-	BOR	✓	-	-	\$3.63	TQFP (PT)	Integrated MAC, 10 Base T PHY
PIC18F8493	R	80	66	PIC18	16 KB 8 Kw	✓	-	768	-	2V-5.5V	32 MHz	8 MHz, 31 kHz	192	-	-	-	-	12	2	2	-	1	3	1	1	1	1	-	-	1	-	1	-	-	\$3.78	TQFP (PT)	Integrated LCD Driver	
PIC18F87J60	R	80	55	PIC18	128 KB 64 Kw	✓	✓	3808	-	2V-3.6V	42 MHz	32 kHz, 31 kHz	0	-	-	-	15	-	2	2	3	2	3	-	2	1	1	1	-	1	-	BOR	✓	-	-	\$3.92	TQFP (PT)	Integrated MAC, 10 Base T PHY
PIC18F87Z3	R	80	70	PIC18	128 KB 64 Kw	✓	✓	3936	1024	2V-5.5V	40 MHz	8 MHz, 31 kHz	0	-	-	-	16	2	2	3	2	3	-	2	2	2	-	-	-	1	-	1	-	-	\$8.44	TQFP (PT)	-	
PIC18F96J60	R	100	70	PIC18	64 KB 32 Kw	✓	✓	3808	-	2V-3.6V	42 MHz	31 kHz	0	-	-	-	16	-	2	2	3	2	3	-	2	2	2	1	-	1	-	1	-	-	\$3.84	TQFP (PT)	Integrated MAC, 10 Base T PHY	
PIC18F97J60	R	100	70	PIC18	128 KB 64 Kw	✓	✓	3808	-	2V-3.6V	42 MHz	31 kHz	0	-	-	-	16	-	2	2	3	2	3	-	2	2	2	1	-	1	-	1	-	-	\$4.13	TQFP (PT), LQFP (PL)	Integrated MAC, 10 Base T PHY	

## 16 bit PIC<sup>®</sup> Microcontrollers (PIC24F)

Product	Released (R) Not Released (NR)	IO Pins	Core	Memory				Operating Speed		Analog Sensing & Measurement				Digital				Communication				Monitors		Packages (Designator)				
				Program (KB)	Data RAM (B)	EEPROM	DMA #Ch	Voltage Range	Maximum MIPS	Internal Oscillator	Charge Time Measurement Unit	10-bit ADC	10/12-bit ADC 1100/500 KSPS	Comparators	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer <sup>‡</sup>	Digital Communication	FS/USB OTG	PMP	RTCCORC	PPS		5 ku Prong <sup>†</sup>	System Mgmt. Features		
PIC24F04KA200	R	12	PIC24	4	512	AN1095 <sup>¶</sup>	-	1.8V3.6V	16	8 MHz, 32 kHz	✓	7	-	2	-	1	1	3	1	UART, 1 SPI, 1 FC	-	-	-	-	\$1.16	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), TSSOP (ST)	14-Pin
PIC24F04KA201	R	18	PIC24	4	512	AN1095 <sup>¶</sup>	-	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	-	2	-	1	1	3	1	UART, 1 SPI, 1 FC	-	-	-	-	\$1.25	BOR, POR, WDT, Deep Sleep, XLP	PDIP (P), SSOP (SS), SOIC (SO), QFN (MQL)	20-Pin
PIC24F08KA101	R	18	PIC24	8	1536	512	-	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	-	2	-	1	1	3	2	UART, 1 SPI, 1 FC	-	-	✓	-	\$1.44	BOR, POR, WDT, Deep Sleep, XLP	PDIP (P), SSOP (SS), SOIC (SO), QFN (MQL)	20-Pin
PIC24F16KA101	R	18	PIC24	16	1536	512	-	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	-	2	-	1	1	3	2	UART, 1 SPI, 1 FC	-	-	✓	-	\$1.51	BOR, POR, WDT, Deep Sleep, XLP	PDIP (P), SSOP (SS), SOIC (SO), QFN (MQL)	20-Pin
PIC24F16KA301	NR	18	PIC24	16	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	9	3	-	3	3	5	2	UART, 2 SPI, 2 FC	-	-	✓	-	\$1.86	PWRT, HLVD, POR, OST, WDT	SPDIP (P), SSOP (SS), SOIC (SO)	20-Pin
PIC24F32KA301	NR	18	PIC24	32	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	9	3	-	3	3	5	2	UART, 2 SPI, 2 FC	-	-	✓	-	\$2.00	PWRT, HLVD, POR, OST, WDT	SPDIP (P), SSOP (SS), SOIC (SO)	20-Pin
PIC24F08KA102	R	24	PIC24	8	1536	512	-	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	-	2	-	1	1	3	2	UART, 1 SPI, 1 FC	-	-	✓	-	\$1.51	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
PIC24F16KA102	R	24	PIC24	16	1536	512	-	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	-	2	-	1	1	3	2	UART, 1 SPI, 1 FC	-	-	✓	-	\$1.58	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
PIC24FJ16GA002	R	21	PIC24	16	4096	AN1095 <sup>¶</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	10	-	2	-	5	5	5	2	UART, 2 SPI, 2 FC	-	✓	✓	✓	\$1.74	BOR, LVD, POR, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
PIC24FJ32GA002	R	21	PIC24	32	8192	AN1095 <sup>¶</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	10	-	2	-	5	5	5	2	UART, 2 SPI, 2 FC	-	✓	✓	✓	\$2.06	BOR, LVD, POR, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
PIC24F16KA302	NR	24	PIC24	16	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	10	3	-	3	3	5	2	UART, 2 SPI, 2 FC	-	-	✓	-	\$2.06	PWRT, HLVD, POR, OST, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
PIC24F32KA302	NR	24	PIC24	32	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	10	3	-	3	3	5	2	UART, 2 SPI, 2 FC	-	-	✓	-	\$2.20	PWRT, HLVD, POR, OST, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
PIC24FJ32GA102	R	21	PIC24	32	8192	AN1095 <sup>¶</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	10	-	3	-	5	5	5	2	UART, 2 SPI, 2 FC	-	✓	✓	✓	\$2.23	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	28-Pin
PIC24FJ32GB002	R	19	PIC24	32	8192	AN1095 <sup>¶</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	9	-	3	-	5	5	5	2	UART, 2 SPI, 2 FC	-	✓	✓	✓	\$2.44	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	28-Pin
PIC24FJ64GA002	R	21	PIC24	64	8192	AN1095 <sup>¶</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	10	-	2	-	5	5	5	2	UART, 2 SPI, 2 FC	-	✓	✓	✓	\$2.48	BOR, LVD, POR, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
PIC24FJ64GA102	R	21	PIC24	64	8192	AN1095 <sup>¶</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	10	-	3	-	5	5	5	2	UART, 2 SPI, 2 FC	-	✓	✓	✓	\$2.65	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	28-Pin
PIC24FJ64GB002	R	19	PIC24	64	8192	AN1095 <sup>¶</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	9	-	3	-	5	5	5	2	UART, 2 SPI, 2 FC	-	✓	✓	✓	\$2.88	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	28-Pin

\*Parts available with High Temperature options (150°C).

Note 1: See Application Note "AN1095 - Emulating Data EEPROM".

Note 2: Two 16-bit timers can be concatenated to form a 32-bit timer.

Products sorted by pin count followed by pricing.

† - Pricing subject to change; please contact your Microchip representative for most current pricing.

◇ - Software PLVD implemented via ADC.

## 16 bit PIC® Microcontrollers (PIC24F)

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Input Capture 16-bit Timer <sup>2</sup>	Communication					Monitors System Mgmt. Features	Packages (Designator)			
				Program (KB)	Data RAM (B)	EEPROM	DMA Ch		Maximum MIPS	Internal Oscillator	Charge Time Measurement Unit	10-bit ADC	10/12-bit ADC 1100/500 KSPS	Comparators	Graphics Controller		Output Compare/PWM	Digital Communication	FS USB OTG	PMP	RTCCRC			PPS	5-ku Pricing <sup>†</sup>	
PIC24FJ16GA004	R	35	PIC24	16	4096	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	13	-	2	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$1.93	BOR, LVD, POR, WDT	TQFP (PT), QFN (ML)
PIC24FJ32GA004	R	35	PIC24	32	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	13	-	2	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$2.30	BOR, LVD, POR, WDT	TQFP (PT), QFN (ML)
PIC24F16KA304	NR	38	PIC24	16	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	16	3	-	3	3	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$2.30	PWRT, HLVD, POR, OST, WDT	TQFP (PT), QFN (ML), UQFN (MV)
PIC24FJ32GA104	R	35	PIC24	32	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	13	-	3	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$2.44	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)
PIC24F32KA304	NR	38	PIC24	32	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	16	3	-	3	3	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$2.44	PWRT, HLVD, POR, OST, WDT	TQFP (PT), QFN (ML), UQFN (MV)
PIC24FJ32GB004	R	33	PIC24	32	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	13	-	3	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	✓	✓	✓	✓	\$2.65	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)
PIC24FJ64GA004	R	35	PIC24	64	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	13	-	2	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$2.72	BOR, LVD, POR, WDT	TQFP (PT), QFN (ML)
PIC24FJ64GA104	R	35	PIC24	64	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	13	-	3	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$2.88	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)
PIC24FJ64GB004	R	33	PIC24	64	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	13	-	3	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	✓	✓	✓	✓	\$3.07	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)
PIC24FJ64GA006	R	53	PIC24	64	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$3.05	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA006	R	53	PIC24	128	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$3.35	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA106	R	53	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	-	-	-	-	\$3.56	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ64GB106	R	52	PIC24	64	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$3.64	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GA106	R	53	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	-	-	-	-	\$3.77	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ128GB106	R	52	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$3.93	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GB106	R	53	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	-	-	-	-	\$3.98	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GB106	R	52	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$4.14	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ128GB206	R	52	PIC24	128	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$4.30	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)
PIC24FJ128DA106	R	52	PIC24	128	24576	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	✓	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	-	-	-	\$4.34	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)
PIC24FJ256GB106	R	52	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$4.35	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GB206	R	52	PIC24	256	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$4.65	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)
PIC24FJ256DA106	R	52	PIC24	256	24576	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	✓	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	-	-	-	\$4.69	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)
PIC24FJ128DA206	R	52	PIC24	128	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	✓	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	-	-	-	\$4.76	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)
PIC24FJ256DA206	R	52	PIC24	256	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	✓	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	-	-	-	\$5.11	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)
PIC24FJ64GA008	R	69	PIC24	64	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$3.30	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA008	R	69	PIC24	128	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	\$3.60	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA108	R	69	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	-	-	-	-	\$3.82	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ64GB108	R	68	PIC24	64	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$3.91	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GA108	R	69	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	-	-	-	-	\$4.03	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ128GB108	R	68	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$4.20	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GA108	R	69	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	-	-	-	-	\$4.24	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GB108	R	68	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$4.41	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GB108	R	68	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 I <sup>2</sup> C	✓	✓	✓	✓	\$4.62	BOR, LVD, POR, WDT	TQFP (PT)

\*Parts available with High Temperature options (150°C).

Note 1: See Application Note "AN1095 - Emulating Data EEPROM".

2: Two 16-bit timers can be concatenated to form a 32-bit timer.

Products sorted by pin count followed by pricing.

† - Pricing subject to change; please contact your Microchip representative for most current pricing.

◊ - Software PLVD implemented via ADC.

16 bit PIC® Microcontrollers (PIC24F)

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Input Capture 16-bit Timer <sup>2</sup>	Communication					Monitors System Mgmt. Features	Packages (Designator)			
				Program (KB)	Data RAM (B)	EEPROM	DMA Ch		Maximum MIPS	Internal Oscillator	Charge Time Measurement Unit	10-bit ADC	10/12-bit ADC 1100/500 KSPS	Comparators	Graphics Controller		Output Compare/PWM	Digital Communication	FS USB OTG	PMP	RTCCRC			PPS	5 Au Pricing <sup>†</sup>	
PIC24FJ64GA010	R	85	PIC24	64	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 PC	-	✓	-	-	\$3.51	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA010	R	85	PIC24	128	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 PC	-	✓	-	-	\$3.81	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA110	R	85	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	-	✓	✓	✓	\$4.03	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ64GB110	R	84	PIC24	64	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.12	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GA110	R	85	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	-	✓	✓	✓	\$4.24	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ128GB110	R	84	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	16 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.41	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GA110	R	85	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	-	✓	✓	✓	\$4.45	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GB110	R	84	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.62	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ128GB210	R	84	PIC24	128	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.79	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ128DA110	R	84	PIC24	128	24576	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.83	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ256GB110	R	84	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.83	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GB210	R	84	PIC24	256	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.14	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ256DA110	R	84	PIC24	256	24576	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.18	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ128DA210	R	84	PIC24	128	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.25	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ256DA210	R	84	PIC24	256	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.60	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ128GB108	R	68	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.20	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GA108	R	69	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	-	✓	✓	✓	\$4.24	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GB108	R	68	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.41	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GB108	R	68	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.62	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ64GA010	R	85	PIC24	64	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 PC	-	✓	-	-	\$3.51	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA010	R	85	PIC24	128	8192	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	16	-	2	-	5	5	5	2 UART, 2 SPI, 2 PC	-	✓	-	-	\$3.81	BOR, POR, WDT	TQFP (PT)
PIC24FJ128GA110	R	85	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	-	✓	✓	✓	\$4.03	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ64GB110	R	84	PIC24	64	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.12	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GA110	R	85	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	-	✓	✓	✓	\$4.24	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ128GB110	R	84	PIC24	128	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	16 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.41	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GA110	R	85	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	-	✓	✓	✓	\$4.45	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ192GB110	R	84	PIC24	192	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.62	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ128GB210	R	84	PIC24	128	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.79	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ128DA110	R	84	PIC24	128	24576	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.83	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ256GB110	R	84	PIC24	256	16384	AN1095 <sup>1)</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	16	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$4.83	BOR, LVD, POR, WDT	TQFP (PT)
PIC24FJ256GB210	R	84	PIC24	256	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	-	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.14	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ256DA110	R	84	PIC24	256	24576	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.18	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ128DA210	R	84	PIC24	128	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.25	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
PIC24FJ256DA210	R	84	PIC24	256	98304	AN1095 <sup>1)</sup>	-	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	-	3	✓	9	9	5	4 UART, 3 SPI, 3 PC	✓	✓	✓	✓	\$5.60	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)

\*Parts available with High Temperature options (150°C).  
 Note 1: See Application Note "AN1095 - Emulating Data EEPROM".  
 2: Two 16-bit timers can be concatenated to form a 32-bit timer.

Products sorted by pin count followed by pricing.  
 † - Pricing subject to change; please contact your Microchip representative for most current pricing.  
 ◊ - Software PLVD implemented via ADC.

16-bit PIC<sup>®</sup> Microcontrollers (PIC24H)

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement				Input Capture	16-bit Timer <sup>2</sup>	Communication					5-ku Pricing <sup>†</sup>	Monitors	Packages (Designator)			
				Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum MIPS	Internal Oscillator	Charge Time Measurement Unit	10-bit ADC	10/12-bit ADC 1100/60 KSPS	Comparators			Output Compare/PWM	Digital Communication	CAN	FS/USB/OTG	PMP				RTCC/CRC	PPS	System Mgmt. Features
PIC24HJ12GP201	R	13	PIC24	12	1024	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	6 ch	-	2	4	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$2.09	PBOR, POR, WDT	PDIP (P), SOIC (SO)	18-Pin
PIC24HJ12GP202	R	21	PIC24	12	1024	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	10 ch	-	2	4	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$2.24	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM), SSOP(SS)	28-Pin
PIC24HJ32GP202*	R	21	PIC24	32	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	10 ch	-	2	4	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$2.40	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
PIC24HJ32GP302	R	21	PIC24	32	4096	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$2.76	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
PIC24HJ64GP202	R	21	PIC24	64	4096	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$3.12	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	44-Pin
PIC24HJ64GP502*	R	21	PIC24	64	4096	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	-	✓	\$3.33	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
PIC24HJ128GP202	R	21	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$3.44	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
PIC24HJ128GP502*	R	21	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	-	✓	\$3.65	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	64-Pin
PIC24HJ16GP304*	R	35	PIC24	16	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	13 ch	-	2	4	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$2.42	PBOR, POR, WDT	TOFP (PT), QFN (ML)	
PIC24HJ32GP204*	R	35	PIC24	32	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	13 ch	-	2	4	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$2.49	PBOR, POR, WDT	TOFP (PT), QFN (ML)	
PIC24HJ32GP304	R	35	PIC24	32	4096	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$2.82	PBOR, POR, WDT	TOFP (PT), QFN (ML)	100-Pin
PIC24HJ64GP204	R	35	PIC24	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$3.29	PBOR, POR, WDT	TOFP (PT), QFN (ML)	
PIC24HJ64GP504*	R	35	PIC24	64	4096	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	-	✓	\$3.58	PBOR, POR, WDT	TOFP (PT), QFN (ML)	
PIC24HJ128GP204	R	35	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	\$3.58	PBOR, POR, WDT	TOFP (PT), QFN (ML)	64-Pin
PIC24HJ128GP504*	R	35	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	-	✓	\$3.88	PBOR, POR, WDT	TOFP (PT), QFN (ML)	
PIC24HJ64GP206A	R	53	PIC24	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	18 ch	-	8	8	9	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	-	\$3.39	PBOR, POR, WDT	TOFP (PT), QFN (MR)	
PIC24HJ64GP506A	R	53	PIC24	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	18 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	-	\$3.60	PBOR, POR, WDT	TOFP (PT), QFN (MR)	64-Pin
PIC24HJ128GP206A*	R	53	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	18 ch	-	8	8	9	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	-	-	\$3.63	PBOR, POR, WDT	TOFP (PT), QFN (MR)	
PIC24HJ128GP306A	R	53	PIC24	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	18 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	-	\$3.79	PBOR, POR, WDT	TOFP (PT), QFN (MR)	
PIC24HJ128GP506A*	R	53	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	18 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	-	\$3.85	PBOR, POR, WDT	TOFP (PT), QFN (MR)	100-Pin
PIC24HJ256GP206A*	R	53	PIC24	256	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	18 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	-	\$4.05	PBOR, POR, WDT	TOFP (PT, PF)	
PIC24HJ64GP210A	R	85	PIC24	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	32 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	-	\$3.88	PBOR, POR, WDT	TOFP (PT, PF)	
PIC24HJ64GP510A	R	85	PIC24	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	32 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	-	\$4.06	PBOR, POR, WDT	TOFP (PT, PF)	100-Pin
PIC24HJ128GP210A	R	85	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	32 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	-	\$4.14	PBOR, POR, WDT	TOFP (PT, PF)	
PIC24HJ128GP310A	R	85	PIC24	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	32 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	-	\$4.26	PBOR, POR, WDT	TOFP (PT, PF)	
PIC24HJ128GP510A*	R	85	PIC24	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	32 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	-	\$4.31	PBOR, POR, WDT	TOFP (PT, PF)	100-Pin
PIC24HJ256GP210A	R	85	PIC24	256	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	32 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	-	\$4.63	PBOR, POR, WDT	TOFP (PT, PF)	
PIC24HJ256GP610A*	R	85	PIC24	256	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	-	2 ADC 32 ch	-	8	8	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	2	-	-	-	-	\$5.08	PBOR, POR, WDT	TOFP (PT, PF)	

\*Parts available with High Temperature options (150°C).  
 Note 1: See Application Note "AN1095 - Emulating Data EEPROM".  
 2: Two 16-bit timers can be concatenated to form a 32-bit timer.

Products sorted by pin count followed by pricing.  
 † - Pricing subject to change; please contact your Microchip representative for most current pricing.

### 32-bit PIC32 Microcontrollers

Product	Released (R) Not Released (NR)	Core	Memory			DMA Channels General/Dedicated	Voltage Range	Operating Speed		Analog		Timers 16/32-bit	Communication						PMP	RTCC	5-ku Pricing†	Monitors		
			Flash KB + Boot Flash	Data RAM (KB)	EEPROM			Maximum Speed (MHz)	Internal Oscillator	A/Ds 10-bit 1000 legs	Comparators		ICOP/M	SPI	I <sup>2</sup> C™	UARTs	FSUSB OTG	Ethernet				CAN	System Mgmt. Features	Packages (Designator)
PIC32MX320F032H	R	PIC32	32 + 12	8	AN1095†	0/0	2.3V-3.6V	40	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$3.09	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX320F064H	R	PIC32	64 + 12	16	AN1095†	0/0	2.3V-3.6V	40	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$3.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX420F032H	R	PIC32	32 + 12	8	AN1095†	0/2	2.3V-3.6V	40	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	-	-	✓	1	\$3.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX320F064H	R	PIC32	64 + 12	16	AN1095†	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$3.51	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX320F128H	R	PIC32	128 + 12	16	AN1095†	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$3.75	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX340F128H	R	PIC32	128 + 12	32	AN1095†	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$3.96	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX440F128H	R	PIC32	128 + 12	32	AN1095†	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	-	-	✓	1	\$4.23	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX340F256H	R	PIC32	256 + 12	32	AN1095†	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$4.31	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX440F256H	R	PIC32	256 + 12	32	AN1095†	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	-	-	✓	1	\$4.58	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX340F512H	R	PIC32	512 + 12	32	AN1095†	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$4.77	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX575F256H	R	PIC32	256 + 12	64	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	-	1	✓	1	\$4.96	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX675F128H	R	PIC32	512 + 12	32	AN1095†	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	-	-	✓	1	\$5.04	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX675F256H	R	PIC32	256 + 12	64	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	-	✓	1	\$5.19	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX575F512H	R	PIC32	512 + 12	64	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	-	1	✓	1	\$5.42	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX775F256H	R	PIC32	256 + 12	64	AN1095†	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	2	✓	1	\$5.42	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX775F512H	R	PIC32	512 + 12	64	AN1095†	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	-	✓	1	\$5.66	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX695F512H	R	PIC32	512 + 12	128	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	-	✓	1	\$6.13	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX795F512H	R	PIC32	512 + 12	128	AN1095†	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	2	✓	1	\$6.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX534F064H	NR	PIC32	64 + 12	16	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	-	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX564F064H	NR	PIC32	64 + 12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	-	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX564F128H	NR	PIC32	128 + 12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	-	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX664F064H	NR	PIC32	64 + 12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	-	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX664F128H	NR	PIC32	128 + 12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	-	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX764F128H	NR	PIC32	128 + 12	32	AN1095†	4/6	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
PIC32MX320F128L	R	PIC32	128 + 12	16	AN1095†	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$4.44	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
PIC32MX340F128L	R	PIC32	128 + 12	32	AN1095†	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$4.44	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
PIC32MX440F128L	R	PIC32	128 + 12	32	AN1095†	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	-	-	✓	1	\$4.70	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
PIC32MX360F256L	R	PIC32	256 + 12	32	AN1095†	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$4.79	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
PIC32MX460F256L	R	PIC32	256 + 12	32	AN1095†	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	-	-	✓	1	\$5.05	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
PIC32MX360F512L	R	PIC32	512 + 12	32	AN1095†	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	-	-	-	✓	1	\$5.25	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
PIC32MX575F256L	R	PIC32	256 + 12	64	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	-	1	✓	1	\$5.43	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX460F512L	R	PIC32	512 + 12	32	AN1095†	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	-	-	✓	1	\$5.52	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
PIC32MX675F256L	R	PIC32	256 + 12	64	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	-	✓	1	\$5.67	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX575F512L	R	PIC32	512 + 12	64	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	-	1	✓	1	\$5.89	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX775F256L	R	PIC32	256 + 12	64	AN1095†	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	2	✓	1	\$5.89	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)

Note 1: See Application Note "AN1095 - Emulating Data EEPROM".

Products sorted by pin count followed by pricing.

† - Pricing subject to change; please contact your Microchip representative for most current pricing.

### 32-bit PIC32 Microcontrollers

Product	Released (R) Not Released (NR)	Core	Memory			DMA Channels General/Dedicated	Voltage Range	Operating Speed		Analog			Times 16/32-bit	Communication						Monitors		Packages (Designator)		
			Flash KB + Boot Flash	Data RAM (KB)	EEPROM			Maximum Speed/MHz	Internal Oscillator	ADC 10-bit 1000 ksps	Comparators	ICCPWM		SPI	I <sup>2</sup> C™	UARTs	FSUSB OTG	Ethernet	CAN	PMP	RTCC		5 $\mu$ s Pricing†	System Mgmt. Features
PIC32MX675F512L	R	PIC32	512 + 12	64	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	-	✓	1	\$6.13	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX775F512L	R	PIC32	512 + 12	64	AN1095†	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	2	✓	1	\$6.36	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX689F512L	R	PIC32	512 + 12	128	AN1095†	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	-	✓	1	\$6.61	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX795F512L	R	PIC32	512 + 12	128	AN1095†	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	2	✓	1	\$6.83	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX534F064L	NR	PIC32	64+12	16	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	-	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX564F064L	NR	PIC32	64+12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	-	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX564F128L	NR	PIC32	128+12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	-	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX684F064L	NR	PIC32	64+12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	-	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX664F128L	NR	PIC32	128+12	32	AN1095†	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	-	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
PIC32MX764F128L	NR	PIC32	128+12	32	AN1095†	4/6	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	1	✓	1	Call for Pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)

Note 1: See Application Note "AN1095 - Emulating Data EEPROM".

### dsPIC30F DSC Families

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory			Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Motor Control PWM Ch	Power Supply PWM Ch	QEI	Codec† (IS, ACS†)	16-bit Timer†	Communication			5 $\mu$ s Pricing†	Monitors		Packages (Designator)
				Program KB	Data RAM (B)	EEPROM		Maximum Speed MIPS	Internal Oscillator	ADC	DAC	Comparators								Digital Communication	CAN	System Mgmt. Features				
dsPIC30F3012	R	12	dsPIC	24	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	8 x 12-bit @ 200 (ksps)	-	-	2	2	-	-	-	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	\$2.68	PBOR, LVD, POR, WDT	PDIP (P), SOIC (SO), QFN (ML)	18-Pin	
dsPIC30F2010	R	20	dsPIC	12	512	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	6 x 10-bit @ 1000 (ksps)	-	-	2	4	6	-	1	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	\$2.43	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML), PDIP (P)	28-Pin	
dsPIC30F3013	R	20	dsPIC	24	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	10 x 12-bit @ 200 (ksps)	-	-	2	2	-	-	-	-	3	2 UART, 1 SPI, 1 I <sup>2</sup> C	-	\$2.77	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML)	28-Pin	
dsPIC30F4012	R	20	dsPIC	48	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	6 x 10-bit @ 1000 (ksps)	-	-	2	4	6	-	1	-	5	1 UART, 1 SPI, 1 I <sup>2</sup> C	1	\$3.71	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML)	40-Pin	
dsPIC30F4013	R	30	dsPIC	48	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	13 x 12-bit @ 200 (ksps)	-	-	4	4	-	-	-	1	5	2 UART, 1 SPI, 1 I <sup>2</sup> C	1	\$3.91	PBOR, LVD, POR, WDT	PDIP (P), TQFP (PT), QFN (ML)	40-Pin	
dsPIC30F4011	R	30	dsPIC	48	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	9 x 10-bit @ 1000 (ksps)	-	-	4	4	6	-	1	-	5	2 UART, 1 SPI, 1 I <sup>2</sup> C	1	\$4.02	PBOR, LVD, POR, WDT	PDIP (P), TQFP (PT), QFN (ML)	40-Pin	
dsPIC30F5015	R	52	dsPIC	66	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	16 x 10-bit @ 1000 (ksps)	-	-	4	4	8	-	1	-	5	1 UART, 2 SPI, 1 I <sup>2</sup> C	1	\$5.08	PBOR, LVD, POR, WDT	TQFP (PT)	64-Pin	
dsPIC30F6011A	R	52	dsPIC	132	6144	2048	2.5V-5.5V	30	7.37 MHz, 32 kHz	16 x 12-bit @ 200 (ksps)	-	-	8	8	-	-	-	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	2	\$6.89	PBOR, LVD, POR, WDT	TQFP (PT)	64-Pin	
dsPIC30F5016	R	68	dsPIC	66	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	16 x 10-bit @ 1000 (ksps)	-	-	4	4	8	-	1	-	5	1 UART, 2 SPI, 1 I <sup>2</sup> C	1	\$5.59	PBOR, LVD, POR, WDT	TQFP (PF)	80-Pin	
dsPIC30F6014A	R	68	dsPIC	144	8192	4096	2.5V-5.5V	30	7.37 MHz, 32 kHz	16 x 12-bit @ 200 (ksps)	-	-	8	8	-	-	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	2	\$7.25	PBOR, LVD, POR, WDT	TQFP (PF)	80-Pin		
dsPIC30F6010A	R	68	dsPIC	144	8192	4096	2.5V-5.5V	30	7.37 MHz, 32 kHz	16 x 10-bit @ 1000 (ksps)	-	-	8	8	8	-	1	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	2	\$7.36	PBOR, LVD, POR, WDT	TQFP (PF)	80-Pin	

Note 1: Two 16-bit timers can be concatenated to form a 32-bit timer.

Products sorted by pin count followed by pricing.

† - Pricing subject to change; please contact your Microchip representative for most current pricing.

dsPIC33 DSC General Purpose Family

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Code (FS, AC37)	16-bit Timer <sup>2</sup>	Communication				5 Au Pricing <sup>†</sup>	Monitors	Packages (Designator)				
				Program KB	Data RAM (B)	EEPROM	DMA ch		Maximum Speed MIPS	Internal Oscillator	ADC 10/12-bit 1100/500 ksps	DAC	Comparators					Digital Communication	CAN	PI/P	RTCCRC				PPS	System Mgmt. Features		
18-Pin	dsPIC33FJ12GP201	R	13	dsPIC*	12	1024	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	-	3	1 UART, 1 SPI, 1 PC	-	-	-	✓	\$2.09	PBOR, POR, WDT	PDIP (P), SOIC (SO)		
28-Pin	dsPIC33FJ12GP202	R	21	dsPIC	12	1024	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	-	-	2	4	-	3	1 UART, 1 SPI, 1 PC	-	-	-	✓	\$2.24	PBOR, POR, WDT	QFN (MM), SOIC(SO), SPDIP (SP), SSOP (SS)		
	dsPIC33FJ32GP202	R	21	dsPIC	32	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	-	-	2	4	-	3	1 UART, 1 SPI, 1 PC	-	-	-	✓	\$2.56	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)		
	dsPIC33FJ32GP302	R	21	dsPIC	32	4096	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	-	-	2	4	4	5	2 UART, 2 SPI, 1 PC	-	-	-	✓	\$2.76	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)		
	dsPIC33FJ64GP202	R	21	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	-	-	2	4	4	1	5	2 UART, 2 SPI, 1 PC	-	✓	-	✓	\$3.12	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ64GP802*	R	21	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	2 x 16-bit @ 100 (ksps)	2	4	4	1	5	2 UART, 2 SPI, 1 PC	1	✓	✓	✓	✓	\$3.42	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ128GP202	R	21	dsPIC	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	-	-	2	4	4	1	5	2 UART, 2 SPI, 1 PC	-	✓	✓	✓	✓	\$3.44	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)
44-Pin	dsPIC33FJ128GP802	R	21	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	2 x 16-bit @ 100 (ksps)	2	4	4	1	5	2 UART, 2 SPI, 1 PC	1	✓	✓	✓	✓	\$3.72	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ16GP304	R	35	dsPIC	16	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	-	-	2	4	-	3	1 UART, 1 SPI, 1 PC	-	-	-	✓	\$2.58	BOR, POR, WDT	QFN (ML), TOFP (PT)		
	dsPIC33FJ32GP204*	R	35	dsPIC	32	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	-	-	2	4	-	3	1 UART, 1 SPI, 1 PC	-	-	-	✓	\$2.66	PBOR, POR, WDT	QFN (ML), TOFP (PT)		
	dsPIC33FJ32GP304	R	35	dsPIC	32	4096	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	-	-	2	4	4	1	5	2 UART, 2 SPI, 1 PC	-	-	-	✓	\$3.01	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
	dsPIC33FJ64GP204	R	35	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	-	-	2	4	4	1	5	2 UART, 2 SPI, 1 PC	-	✓	-	✓	\$3.29	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
	dsPIC33FJ128GP204	R	35	dsPIC	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	-	-	2	4	4	1	5	2 UART, 2 SPI, 1 PC	-	✓	✓	✓	✓	\$3.58	PBOR, POR, WDT	QFN (ML), TOFP (PT)
	dsPIC33FJ64GP804	R	35	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	2 x 16-bit @ 100 (ksps)	2	4	4	1	5	2 UART, 2 SPI, 1 PC	1	✓	✓	✓	✓	\$3.65	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
	dsPIC33FJ128GP804*	R	35	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	2 x 16-bit @ 100 (ksps)	2	4	4	1	5	2 UART, 2 SPI, 1 PC	1	✓	✓	✓	✓	\$3.96	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
	64-Pin	dsPIC33FJ64GP206A	R	53	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	-	-	8	8	1	9	2 UART, 2 SPI, 1 PC	-	-	-	-	\$3.39	PBOR, POR, WDT	QFN (MR), TOFP (PT)	
		dsPIC33FJ64GP306A	R	53	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	-	-	-	-	\$3.53	PBOR, POR, WDT	QFN (MR), TOFP (PT)	
dsPIC33FJ128GP206A		R	53	dsPIC	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	-	-	8	8	1	9	2 UART, 2 SPI, 1 PC	-	-	-	-	\$3.63	PBOR, POR, WDT	QFN (MR), TOFP (PT)		
dsPIC33FJ128GP306A		R	53	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	-	-	-	-	\$3.79	PBOR, POR, WDT	QFN (MR), TOFP (PT)		
dsPIC33FJ64GP706A		R	53	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch 2 ADC	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	2	-	-	-	\$4.14	PBOR, POR, WDT	QFN (MR), TOFP (PT)		
dsPIC33FJ256GP506A*		R	53	dsPIC	256	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	1	-	-	-	\$4.20	PBOR, POR, WDT	QFN (MR), TOFP (PT)		
80-Pin	dsPIC33FJ128GP706A*	R	53	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch 2 ADC	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	2	-	-	-	\$4.40	PBOR, POR, WDT	QFN (MR), TOFP (PT)		
	dsPIC33FJ64GP708A	R	69	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	2	-	-	-	\$4.44	PBOR, POR, WDT	TQFP (PT)		
100-Pin	dsPIC33FJ128GP708A	R	69	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	2	-	-	-	\$4.69	PBOR, POR, WDT	TQFP (PT)		
	dsPIC33FJ64GP310A	R	85	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	-	-	-	-	\$3.99	PBOR, POR, WDT	TQFP (PT, PF)		
	dsPIC33FJ128GP310A	R	85	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	-	-	-	-	\$4.26	PBOR, POR, WDT	TQFP (PT, PF)		
	dsPIC33FJ64GP710A	R	85	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch 2 ADC	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	2	-	-	-	\$4.61	PBOR, POR, WDT	TQFP (PT, PF)		
	dsPIC33FJ256GP510A	R	85	dsPIC	256	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	1	-	-	-	\$4.66	PBOR, POR, WDT	TQFP (PT, PF)		
	dsPIC33FJ128GP710A*	R	85	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch 2 ADC	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	2	-	-	-	\$4.86	PBOR, POR, WDT	TQFP (PT, PF)		
	dsPIC33FJ256GP710A*	R	85	dsPIC	256	30720	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch 2 ADC	-	-	8	8	1	9	2 UART, 2 SPI, 2 PC	2	-	-	-	\$5.32	PBOR, POR, WDT	TQFP (PT, PF)		

\*Parts available with High Temperature options (150°C).  
 Note 1: See Application Note "AN1095 - Emulating Data EEPROM".  
 2: Two 16-bit timers can be concatenated to form a 32-bit timer.

Products sorted by pin count followed by pricing.  
 † - Pricing subject to change; please contact your Microchip representative for most current pricing.

## dsPIC33 DSC Motor Control and Power Conversion Family

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Operating Speed			Analog			Output Compare/PWM	Input Capture	Motor Control/PWM Ch	QEI	16-bit Timer <sup>2</sup>	Communication				5-ku Pricing <sup>†</sup>	Monitors System Mgmt. Features	Packages (Designator)		
				Program KB	Data RAM (B)	EEPROM	DMA #Ch	Voltage Range	Maximum Speed MPS	Internal Oscillator	ADC 10/12-bit 1100/500 ksps	DAC	Comparators						Digital Communication	CAN	PMP	RTCCCR				PPS	
dsPIC33F12MC201	R	15	dsPIC*	12	1024	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	4 ch	-	-	2	4	8	1	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.09	PBOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS)	20-Pin
dsPIC33F12MC202	R	21	dsPIC	12	1024	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	6+2	1	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.31	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP), SSOP (SS)	28-Pin
dsPIC33F32MC202*	R	21	dsPIC	32	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	6+2	1	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.63	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
dsPIC33F32MC302	R	21	dsPIC	32	4096	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.87	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
dsPIC33FJ64MC202	R	21	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	✓	✓	✓	\$3.29	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
dsPIC33FJ64MC802*	R	21	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	✓	✓	✓	\$3.50	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
dsPIC33FJ128MC202	R	21	dsPIC	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	✓	✓	✓	\$3.57	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	44-Pin
dsPIC33FJ128MC802*	R	21	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	✓	✓	✓	\$3.82	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
dsPIC33F32MC204*	R	35	dsPIC	32	2048	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	-	-	2	4	6+2	1	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.76	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
dsPIC33F32MC304	R	35	dsPIC	32	4096	AN1095 <sup>1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	✓	-	✓	\$3.12	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
dsPIC33FJ64MC204	R	35	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	✓	✓	✓	\$3.39	PBOR, POR, WDT	QFN (ML), TOFP (PT)	64-Pin
dsPIC33FJ128MC204	R	35	dsPIC	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	✓	✓	✓	\$3.68	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
dsPIC33FJ64MC804*	R	35	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	✓	✓	✓	\$3.89	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
dsPIC33FJ128MC804*	R	35	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	-	-	2	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	✓	✓	✓	\$4.23	PBOR, POR, WDT	QFN (ML), TOFP (PT)	
dsPIC33FJ64MC506A*	R	53	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$3.84	PBOR, POR, WDT	QFN (MR), TOFP (PT)	80-Pin
dsPIC33FJ128MC506A*	R	53	dsPIC	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$4.10	PBOR, POR, WDT	QFN (MR), TOFP (PT)	
dsPIC33FJ64MC706A	R	53	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch 2 ADC	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$4.21	PBOR, POR, WDT	QFN (MR), TOFP (PT)	
dsPIC33FJ128MC706A*	R	53	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.3V	40	7.37 MHz, 32 kHz	16 ch 2 ADC	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$4.49	PBOR, POR, WDT	QFN (MR), TOFP (PT)	
dsPIC33FJ64MC508A	R	69	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$4.14	PBOR, POR, WDT	TOFP (PT)	100-Pin
dsPIC33FJ128MC708A	R	69	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch 2 ADC	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	2	-	-	-	\$5.00	PBOR, POR, WDT	TOFP (PT)	
dsPIC33FJ64MC510A	R	85	dsPIC	64	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$4.33	PBOR, POR, WDT	TOFP (PT, PF)	
dsPIC33FJ128MC510A	R	85	dsPIC	128	8192	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$4.59	PBOR, POR, WDT	TOFP (PT, PF)	
dsPIC33FJ64MC710A	R	85	dsPIC	64	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	2	-	-	-	\$4.91	PBOR, POR, WDT	TOFP (PT, PF)	100-Pin
dsPIC33FJ256MC510A	R	85	dsPIC	256	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	\$4.97	PBOR, POR, WDT	TOFP (PT, PF)	
dsPIC33FJ128MC710A*	R	85	dsPIC	128	16384	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	2	-	-	-	\$5.18	PBOR, POR, WDT	TOFP (PT, PF)	
dsPIC33FJ256MC710A*	R	85	dsPIC	256	30720	AN1095 <sup>1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	-	-	8	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	2	-	-	-	\$5.67	PBOR, POR, WDT	TOFP (PT, PF)	

\*Parts available with High Temperature options (150°C).

Note 1: See Application Note "AN1095 - Emulating Data EEPROM".

2: Two 16-bit timers can be concatenated to form a 32-bit timer.

Products sorted by pin count followed by pricing.

† - Pricing subject to change; please contact your Microchip representative for most current pricing.



dsPIC33 DSC SMPS and Digital Power Conversion Family

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Operating Speed		Analog			Output Compare/PWM	Input Capture	Power Supply PPM C <sup>(1)</sup>	CEI	16-bit Timer <sup>(2)</sup>	Communication					5 Au Pricing <sup>†</sup>	Monitors	Packages (Designator)			
				Program (KB)	Data RAM (B)	EEPROM	DMA ch	Voltage Range	Maximum Speed (MIPS)	Internal Oscillator	ADC (0-bit/2000-4000 Steps)	DAC						Comparators	Digital Communication	CAN	PMP	RTCC				PPS	System Mgmt. Features	
18-Pin	dsPIC33FJ06GS101	R	13	dsPIC*	6	256	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	1	-	4	-	2	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$1.96	BOR, POR, WDT	SOIC (SO)	18-Pin
28-Pin	dsPIC33FJ06GS102	R	21	dsPIC	6	256	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	-	-	1	-	4	-	2	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.20	BOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	28-Pin
	dsPIC33FJ16GS402	R	21	dsPIC	16	2048	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	8 ch	-	-	2	2	6	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.38	BOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
44-Pin	dsPIC33FJ16GS502	R	21	dsPIC	16	2048	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	8 ch, 2 ADC*	4 x 10-bit	4	2	2	8	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$3.04	BOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	44-Pin
	dsPIC33FJ16GS404	R	35	dsPIC	16	2048	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	8 ch	-	-	2	2	6	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.77	BOR, POR, WDT	QFN (ML), TOFP (PT)	
64-Pin	dsPIC33FJ16GS504	R	35	dsPIC	16	2048	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	12 ch, 2 ADC*	4 x 10-bit	4	2	2	8	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$3.42	BOR, POR, WDT	QFN (ML), TOFP (PT)	64-Pin
	dsPIC33FJ32GS406	R	58	dsPIC	32	4096	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	-	-	4	4	12	1	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	Call for Pricing	BOR, POR, WDT	QFN (MR), TOFP (PT)	
	dsPIC33FJ64GS406	R	58	dsPIC	64	8192	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	-	-	4	4	12	1	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	Call for Pricing	BOR, POR, WDT	QFN (MR), TOFP (PT)	
	dsPIC33FJ32GS606	R	58	dsPIC	32	4096	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch, 2 ADC*	4 x 10-bit	4	4	4	12	2	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	Call for Pricing	BOR, POR, WDT	QFN (MR), TOFP (PT)	
80-Pin	dsPIC33FJ64GS606	R	58	dsPIC	64	9216	AN1095 <sup>(1)</sup>	4	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch, 2 ADC*	4 x 10-bit	4	4	4	12	2	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	Call for Pricing	BOR, POR, WDT	QFN (MR), TOFP (PT)	80-Pin
	dsPIC33FJ32GS608	R	74	dsPIC	32	4096	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch, 2 ADC*	4 x 10-bit	4	4	4	16	2	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	Call for Pricing	BOR, POR, WDT	TOFP (PT)	
100-Pin	dsPIC33FJ64GS608	R	74	dsPIC	64	9216	AN1095 <sup>(1)</sup>	4	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch, 2 ADC*	4 x 10-bit	4	4	4	16	2	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	Call for Pricing	BOR, POR, WDT	TOFP (PT)	100-Pin
	dsPIC33FJ32GS610	R	85	dsPIC	32	4096	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch, 2 ADC*	4 x 10-bit	4	4	4	18	2	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	-	-	Call for Pricing	BOR, POR, WDT	TOFP (PF, PT)	
	dsPIC33FJ64GS610	R	85	dsPIC	64	9216	AN1095 <sup>(1)</sup>	4	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch, 2 ADC*	4 x 10-bit	4	4	4	18	2	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	1	-	-	-	Call for Pricing	BOR, POR, WDT	TOFP (PF, PT)	

\*Parts available with High Temperature options (150°C).  
 Note 1: See Application Note "AN1095 - Emulating Data EEPROM".  
 2: Two 16-bit timers can be concatenated to form a 32-bit timer.

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 † - Pricing subject to change; please contact your Microchip representative for most current pricing.

## Thermal Management – Temperature Sensors

Product	Typical Accuracy (°C)	Max. Accuracy @ 25°C(°C)	Max. Temperature Range (°C)	Vcc Range (V)	Max. Op Current (µA)	Features	Packages
MCP9501/2/3/4	±0.5	±3	-55 to +125	+2.7 to +5.5	40	Cross to MAX6501/2/3/4, Open-drain and push-pull output options	SOT-23A
MCP9509/10	±0.5	NS	-40 to +125	+2.7 to +5.5	50	Resistor-programmable temperature switch	SOT-23A
MCP9700/01	±1	±4	-40 to +125	+2.3 to +5.5	12	Linear Active Thermistor® IC	SOT-23A, TO-92, SC70
MCP9700/01A	±1	±2	-40 to +125	+2.3 to +5.5	12	Linear Active Thermistor® IC	SOT-23A, TO-92, SC70
TC1046	±0.5	±2	-40 to +125	+2.7 to +4.4	60	High precision temperature-to-voltage converter, 6.25 mV/°C	SOT-23A
TC1047A	±0.5	±2	-40 to +125	+2.5 to +5.5	60	High precision temperature-to-voltage converter, 10 mV/°C	SOT-23A
MCP9800/1/2/3	±0.5	±1	-55 to +125	+2.7 to +5.5	400	SMbus/1°C™ compatible interface, 0.0625°C to 0.5°C adj. resolution, power-saving one-shot temperature measurement	SOIC, MSOP, SOT-23A
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 -4 0°C to +125°C	MSOP, DFN
MCP9843	±0.5	±1	-20 to +125	+3.0 to +3.6	400	JEDEC compatible register set, SMbus/1°C™ compatible interface, programmable, shut-down modes and EVENT output	TSSOP, DFN
MCP98243	±1	±3	-40 to +125	+3.0 to +3.6	500	Serial output temperature sensor with integrated EEPROM	TSSOP, DFN, TDFN
TCN75A	±0.5	±2	-40 to +125	+2.7 to +5.5	500	SMbus/1°C™ compatible interface, power-saving one-shot temperature measurement, multi-drop capability, 0.0625°C to 0.5°C adjustable temperature resolution	SOIC, MSOP

## Power Management – Switching Regulators/PWM Controllers

Product	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
MCP1630V/1631V	3.0 to 5.5	-	-40 to +125	PWM	1000/2000	2800/3700	Ext	Current/Voltage mode PWM controller, UVLO, Short Circuit and Over-temperature Protection, Integrated MOSFET driver	MSOP, SSOP, TSSOP, DFN
MCP1631HV/VHV	3.5 to 16	-	-40 to +125	PWM	2000	3700	Ext	Current/Voltage mode PWM controller with integrated 16V LDO, UVLO, Integrated error, current and voltage sense amplifier, overvoltage comparator and MOSFET driver	SSOP, TSSOP
TC1303/04/13	2.7 to 5.5	DCDC: 0.8 to 4.5 LDO: 1.5 to 3.3	-40 to +85	PFMPWM	2000	65/600	DCDC: 500 mA LDO: 300 mA	Synchronous Buck Regulator, LDO w/Power Good with PFMPWM auto-switching, Power Good output or Power Sequencing	MSOP, DFN
MCP1602/3	2.7 to 5.5	0.8 to 4.5 /4.0	-40 to +85	PFMPWM	2000	35/45	500	Synchronous Buck Regulator PFM, PWM auto-switching, UVLO, soft start, Power Good indicator, Over-temperature/current protection	MSOP, DFN, TSOT
MCP1640/B/C/D	0.65 to 6	2.0 to 5.5	-40 to +85	PWM or PWM/PFM	500	19	350	Integrated synchronous boost regulator, -65V start-up voltage, soft-start, True load disconnect or input-to-output bypass option	SOT-23, DFN
MCP1650/1/2/3	2.7 to 5.5	2.5 to ext. tx limited	-40 to +125	Constant Frequency	750	120	560/440	Step-up DC/DC Controller with shutdown control, low battery detect, Power Good indicator, UVLO, soft start	MSOP

## Power Management – Linear Regulators

Product	Max. Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Typical Active Current (µA)	Typical Dropout Voltage @ Max. I <sub>OUT</sub> (mV)	Typical Output Voltage Accuracy (%)	Features	Packages
TC1016/17	6	1.8 to 4.0	80/150	53	150/285	±0.5	Shutdown	SOT-23A, SC70
TC2014/5, TC2185	6	1.8 to 5.0	50/100/150	55	45/90/140	±0.4	Shutdown, Reference bypass input	SOT-23A
TC2054/5, TC2186	6	1.8 to 5.0	50/100/150	55	45/90/140	±0.4	Shutdown, Error output	SOT-23A
MCP1790/1	30	3.0, 3.3, 5.0	70	70	500	±0.2	Load dump, Shutdown, PowerGood	SOT-223, DPAK
MCP1801/2	10	0.9 to 6.0	150/300	25	250/800	±0.4	Shutdown, High PSRR	SOT-23A
MCP1804	28	1.8 to 18	150	50	300	±0.5	Shutdown, High PSRR	SOT-23, SOT-89, SOT-223
MCP1700	6	1.2 to 5.0	250	1.6	300	±0.4	Very low I <sub>Q</sub>	SOT-23A, SOT-89, TO-92
MCP1702/3	13.2/16	1.2 to 5.0	250	2	330/625	±0.4	Very low I <sub>Q</sub>	DFN, TO-92, SOT-23A, SOT-89, SOT-223
MCP1824/5/6/7	6	0.8 to 5.0	300/500/1000/1500	120/120/140/140	200/210/300/330	±0.5	Fixed and Adjustable output, Shutdown, Power Good	SOT-23, SOT-223, TO-220, DPAK
MCP1824/5/6/7S	6	0.8 to 5.0	300/500/1000/1500	120/120/140/140	200/210/300/330	±0.5	3-pin high current LDOs	SOIC, DFN, SOT-223, TO-220, DPAK
MCP1725/6/7	6	0.8 to 5.0	500/1000/1500	120/140/140	210/300/330	±0.5	Shutdown, COE <sub>FLY</sub> , Power Good	SOIC, DFN
TC1301A/B	6	1.5 to 3.3	LDO1: 300 LDO2: 150	103/114	LDO1: 104 LDO2: 150	±0.5	Dual LDO plus Reset output, Shutdown, Reference bypass, Voltage detect	MSOP, DFN
TC1302AB	6	1.5 to 3.3	LDO1: 300 LDO2: 150	103/114	LDO1: 104 LDO2: 150	±0.5	Dual LDO, Shutdown, reference bypass, Voltage detect	MSOP, DFN

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† - Pricing subject to change; please contact your Microchip representative for most current pricing.

### Power Management – Charge Pump DC-to-DC Converters

Product	Input Voltage Range (V)	Output Voltage (V)	Operating Temp Range (°C)	Max. Input Current (µA)	Typical Output Current (mA)	Features	Packages
TC1044S	1.5 to 12	-V <sub>IN</sub> or 2V <sub>IN</sub>	-40 to +85	160	20	85 kHz oscillator Boost mode	PDIP, SOIC
TC7660	1.5 to 10	-V <sub>IN</sub> or 2V <sub>IN</sub>	-40 to +85	180	20	10 kHz oscillator	PDIP, SOIC
TC7660H	1.5 to 10	-V <sub>IN</sub> or 2V <sub>IN</sub>	-40 to +85	1000	20	120 kHz oscillator	PDIP, SOIC
TC7660S	1.5 to 12	-V <sub>IN</sub> or 2V <sub>IN</sub>	-40 to +85	160	20	45 kHz oscillator Boost mode	PDIP, SOIC
TC7662B	1.5 to 15	-V <sub>IN</sub> or 2V <sub>IN</sub>	-40 to +85	180	20	35 kHz oscillator Boost mode	PDIP, SOIC
TC7662A	3.0 to 18	-V <sub>IN</sub> or 2V <sub>IN</sub>	-40 to +85	200	40	12 kHz oscillator	PDIP, SOIC
MCP1256	1.8 to 3.6	3.3	-40 to +85	100	100	Power Good Sleep mode	MSOP, DFN
MCP1257	1.8 to 3.6	3.3	-40 to +85	100	100	Sleep mode low battery indication	MSOP, DFN
MCP1258	1.8 to 3.6	3.3	-40 to +85	100	100	Low battery indication input/output bypass 1	MSOP, DFN

### Power Management – CPU/System Supervisors

Product	Description	Operating Temp Range (°C)	Features	Packages
MCP1111/2 TC511/2/3/4	System Voltage Detectors (No Reset Delay)	-40 to +125 -40 to +85	Wide V <sub>CC</sub> Input Range, Wide Detection Range (Custom Options Available), Low Current, CMOS/Push-Pull Active Low Reset Options	3/SOT-23A, 3/SOT-89, 3/TO-92, 5/SOT-23, 3/SC-70
MCP809, MCP100, MCP130, MCP120 MCP130X, TC1270A and more	System Voltage Supervisors (Available Reset Delays)	-40 to +125 -40 to +85	Wide Detection Range (Custom Options Available), Low Current, Push-Pull/Open Drain, Active High/Low, Watchdog, Manual Reset, Dual Output Options, Multiple Reset Delay Options	3/SOT-23, 3/TO-92, 3/SC-70, 8/SOIC 150mil, 5/SOT-23, 4/SOT-143

### Power Management – Power MOSFET Drivers

Product	Configuration	Operating Temp Range (°C)	Peak Output Current (A)	Output Resistance (Max. @ 25°C)	Max Supply Voltage (V)	Input/Output Delay (ns)	Packages
MCP1401/02 Single	Inverting/Non-inverting	-40 to +125	0.5	18/16	18	40/40	SOT-23
MCP1415/16 Single	Inverting/Non-inverting	-40 to +125	1.5	7.5/5.5	18	50/55	SOT-23
TC4467/8/9 Quad	Inverting/Non-inverting	-40 to +85	1.2	15/15	18	40/40	PDIP, SOIC
TC4426A/27A/28A Dual	Inverting/Non-inverting	-40 to +125	1.5	9/9	18	30/30	PDIP, SOIC, DFN
TC4423A/24A/25A Dual	Inverting/Non-inverting	-40 to +125	3	3 (typ.)/4 (typ.)	18	40 (typ.)/40 (typ.)	PDIP, SOIC, DFN
MCP14E3/E4/E5 Dual	Inverting/Non-inverting	-40 to +125	4	3.5/3.0	18	55/55	PDIP, SOIC, DFN
MCP1406/07 Single	Inverting/Non-inverting	-40 to +125	6	1.8/2.0 (typ.)	18	30/30	TO-220, PDIP, DFN, SOIC
TC4420/29	Inverting/Non-inverting	-40 to +125	6	2.8/2.5	18	55/55	TO-220, PDIP, DFN, SOIC
TC4421A/22A Single	Inverting/Non-inverting	-40 to +125	9	1.25 (typ.)/1.5	18	38/42	PDIP, SOIC, TO-220, DFN
TC4451/52 Single	Inverting/Non-inverting	-40 to +125	12	0.6 (typ.)/1.5	18	15/15	SOIC, PDIP, DFN, TO-220, DPAK
TC4431/32 Single	Inverting/Non-inverting	-40 to +85	1.5	10/10	30	62/78	PDIP, SOIC

### Power Management – Synchronous Buck High-Side Driver

Product	Configuration	Operating Temp Range (°C)	Peak Output Current (A)	Output Resistance (Max. @ 25°C)	Max Supply Voltage (V)	Input/Output Delay (ns)	Packages
MCP14700/14628	Dual input/Single input	-40 to +85	2	2.5/2.5	5 (V <sub>CC</sub> ), 36 (Boot Pin)	18/20	SOIC, DFN

### Power Management – Battery Chargers

Product	Mode	Cell Type	# of Cells	V <sub>CC</sub> Range (V)	Cell Voltage (V)	Max. Charging Current (mA)	Max. Voltage Regulation (%)	Int/Ext FET	Features	Packages
MCP73113/14/23	Linear	Li-ion/Li-Polymer and LiFePO4	1	4 to 16	3.6, 4.1, 4.2, 4.35, 4.4	1100	±0.5	Int	6.5/5.8V Overvoltage Protection, UVLO, Thermal regulation	10-pin 3x3 DFN
MCP73213/23	Linear	Li-ion/Li-Polymer and LiFePO4	2	4 to 16	7.2, 8.2, 8.4, 8.7, 8.8	1100	±0.6	Int	13V Overvoltage Protection	10-pin 3x3 DFN
MCP73831/2	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 or open-drain STAT pin	8-pin 2x3 DFN, 5-pin SOT-23
MCP73837/8	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) auto-switching, Thermistor input, Power Good output or Timer enable input	10-pin MSOP, 10-pin 3x3 DFN
MCP73871	Linear	Li-Ion/Li-Polymer	1	3.75 to 6.0	4.2, 4.35, 4.4, 4.5	1500 (A/C Adapter) 500 (USB)	±0.5	Int	Simultaneous charging of load and battery, load-dependent charging, multiple programmable charge currents	20-pin SSOP, 20-pin 4x4 QFN

## Linear – Op Amps

Product	# per Package	GBWP (MHz)	I <sub>o</sub> Typical (μA)	V <sub>os</sub> Max (mV)	Operating Voltage (V)	Packages	Product	# per Package	GBWP (MHz)	I <sub>o</sub> Typical (μA)	V <sub>os</sub> Max (mV)	Operating Voltage (V)	Packages
MCP661/2/3/5	1/2/1/2	60	6000	8	2.5 to 5.5	SOIC, MSOP, DFN	MCP6071/2/4	1/2/4	1.2	110	0.15	1.8 to 6.0	SOIC, TSSOP, DFN
MCP651/2/5	1/2/2	50	6000	0.2	2.5 to 5.5	SOIC, MSOP, DFN	MCP6801/2	1/2	1.2	135	4.5	3.5 to 16	SOIC, TDFN
MCP631/2/3/5	1/2/1/2	24	2500	8	2.5 to 5.5	SOIC, MSOP, DFN	MCP6001/2/4	1/2/4	1	100	4.5	1.8 to 6.0	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP621/2/5	1/2/2	20	2500	0.2	2.5 to 5.5	SOIC, MSOP, DFN	MCP6401/2/4	1/2/4	1	45	4.5	1.8 to 6.0	SOIC, TSSOP, TDFN, SOT, SC70
MCP6021/2/3/4	1/2/1/4	10	1000	0.5	2.5 to 5.5	PDIP, SOIC, MSOP, TSSOP, SOT	MCP6L01/2/4	1/2/4	1	85	5	1.8 to 6.0	SOIC, MSOP, TSSOP, SOT, SC70
MCP6291/2/3/4/5	1/2/1/4/2	10	1000	3	2.4 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT	MCP6061/2/4	1/2/4	0.73	60	0.15	1.8 to 6.0	SOIC, TSSOP, DFN
MCP6L1/2/4	1/2/4	10	850	4	2.4 to 6.0	SOIC, MSOP, TSSOP, SOT	MCP6241/2/4	1/2/4	0.55	50	5	1.8 to 5.5	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP6281/2/3/4/5	1/2/1/4/2	5	445	3	2.2 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT	MCP6051/2/4	1/2/4	0.385	30	0.15	1.8 to 6.0	SOIC, TSSOP, DFN
MCP6286	1	3.5	540	1.5	2.2 to 5.5	SOT	MCP6231/2/4	1/2/4	0.3	20	5	1.8 to 6.0	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP601/2/3/4	1/2/1/4	2.8	230	2	2.7 to 6.0	PDIP, SOIC, TSSOP, SOT	MCP6167/8/9	1/2/1/4	0.19	19	0.15	2.3 to 5.5	PDIP, SOIC, MSOP, TSSOP
MCP6L1/2/4	1/2/4	2.8	200	3	2.7 to 6.0	SOIC, MSOP, TSSOP, SOT	MCP6067/8/9	1/2/1/4	0.155	19	0.25	2.5 to 6.0	PDIP, SOIC, TSSOP, SOT
MCP6271/2/3/4/5	1/2/1/4/2	2	170	3	2.0 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT	MCP6141/2/3/4	1/2/1/4	0.1	0.6	3	1.4 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6L1/2/4	1/2/4	2	150	4	2.0 to 6.0	SOIC, MSOP, TSSOP, SOT	MCP6041/2/3/4	1/2/1/4	0.014	0.6	3	1.4 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6V01/2/3	1/2/1	1.3	300	0.002	1.8 to 5.5	SOIC, DFN, TDFN	MCP6031/2/3/4	1/2/1/4	0.01	0.9	0.15	1.8 to 5.5	SOIC, MSOP, TSSOP, DFN, SOT
MCP6V067/8	1/2/1	1.3	300	0.003	1.8 to 5.5	SOIC, DFN, TDFN	MCP6441	1	0.009	0.45	4.5	1.4 to 6.0	SOT, SC70

## Linear – Comparators

Product	# per Package	Typical Propagation Delay (μs)	I <sub>o</sub> Typical (μA)	V <sub>os</sub> Max (mV)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
MCP6541/2/3/4	1/2/1/4	4	1	5	1.8 to 5.5	-40 to +125	Push-Pull, Rail-to-Rail Input/Output	PDIP, SOIC, MSOP, TSSOP, SOT, SC70
MCP65467/8/9	1/2/1/4	4	1	5	1.6 to 5.5	-40 to +125	Open-drain, 9V, Rail-to-Rail Input/Output	PDIP, SOIC, MSOP, TSSOP, SOT, SC70
MCP6561/2/4	1/2/4	0.047	100	10	1.8 to 5.5	-40 to +125	Push-Pull, Rail-to-Rail Input/Output	SOIC, MSOP, TSSOP, SOT, SC70
MCP65667/9	1/2/4	0.047	100	10	1.8 to 5.5	-40 to +125	Open-Drain, Rail-to-Rail Input/Output	SOIC, MSOP, TSSOP, SOT, SC70

## Mixed Signal – Successive Approximation Register (SAR) Analog-to-Digital Converters

Product	Resolution (bits)	Maximum Sampling Rate (ksamples/sec)	# of Input Channels	Input Type	Interface	Max. Supply Current (μA)	Temperature Range (°C)	Packages
MCP3021/3221	10/12	22	1	Single-ended	PC™	250	-40 to +125	SOT-23A
MCP3001/2/4/8	10	200	1/2/4/8	Single-ended	SPI	500-550	-40 to +85	PDIP, SOIC, MSOP, TSSOP
MCP3201/2/4/8	12	100	1/2/4/8	Single-ended	SPI	400-550	-40 to +85	PDIP, SOIC, MSOP, TSSOP
MCP3301/2/4	13	100	1/2/4	Differential	SPI	450	-40 to +85	PDIP, SOIC, MSOP, TSSOP

## Mixed Signal – Digital Potentiometers

Product	# of Taps	Memory	Channels	Interface	Resistance (kΩ)	Temperature Range (°C)	Packages	Product	# of Taps	Memory	Channels	Interface	Resistance (kΩ)	Temperature Range (°C)	Packages
MCP4011/12/13/14	64	Volatile	1	Up/Down	2.1, 5, 10, 50	-40 to +125	DFN, SOT-23	MCP4341/42	129	Nonvolatile	4	PC™	5, 10, 50, 100	-40 to +125	TSSOP, QFN
MCP4017/18/19	128	Volatile	1	PC™	5, 10, 50, 100	-40 to +125	SC-70	MCP4361/62	257	Nonvolatile	4	PC™	5, 10, 50, 100	-40 to +125	TSSOP, QFN
MCP40D17/D18/D19	128	Volatile	1	PC™	5, 10, 50, 100	-40 to +125	SC-70	MCP4331/32	129	Volatile	4	PC™	5, 10, 50, 100	-40 to +125	TSSOP, QFN
MCP4021/22/23/24	64	Nonvolatile	1	Up/Down	2.1, 5, 10, 50	-40 to +125	DFN, SOT-23	MCP4351/52	257	Volatile	4	PC™	5, 10, 50, 100	-40 to +125	TSSOP, QFN
MCP4141/42	128	Nonvolatile	1	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN	MCP4531/32	128	Volatile	1	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4241/42	128	Nonvolatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN	MCP4631/32	128	Volatile	2	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4131/32	128	Volatile	1	SPI	5, 10, 50, 100	-40 to +125	QFN, DFN	MCP4541/42	128	Nonvolatile	1	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4231/32	128	Volatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN	MCP4641/42	128	Nonvolatile	2	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4151/52	256	Volatile	1	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN	MCP4551/52	256	Volatile	1	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4161/62	256	Nonvolatile	1	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN	MCP4651/52	256	Volatile	2	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4251/52	256	Volatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN	MCP4561/62	256	Nonvolatile	1	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4261/62	256	Nonvolatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN	MCP4661/62	256	Nonvolatile	2	PC™	5, 10, 50, 100	-40 to +125	MSOP, DFN

### Mixed Signal – Delta Sigma Analog-to-Digital Converters

Product	Resolution (bits)	Maximum Sampling Rate (samples/sec)	# of Input Channels	Interface	Typical Supply Current (µA)	Temperature Range (°C)	Features	Packages
MCP3421/2/3/4	18 to 12	4 to 240	1/2/2/4 Diff	PC™	155	-40 to +125	PGA, V <sub>REF</sub>	SOT, DFN, MSOP, SOIC, TSSOP
MCP3425/6/7/8	16 to 12	15 to 240	1/2/2/4 Diff	PC™	155	-40 to +125	PGA, V <sub>REF</sub>	SOT, DFN, MSOP, SOIC, TSSOP
MCP3550/1/3	22	13/1/4/60	1 Diff	SPI	120	-40 to +125	50 & 60 Hz Rejection	SOIC, MSOP

### Mixed Signal – Energy Measurement ICs

Product	Dynamic Range	Typical Accuracy	Gain	Output Type	Typical Supply Current	Supply Voltage Range (V)	Temperature Range (°C)	Packages
MCP3901	24-bit resolution	-	up to 32	SPI	3.6 mA	4.5 to 5.5	-40 to +125	SSOP, QFN
MCP3905A/06A	500:1 / 1000:1	0.1%	up to 32	Active power pulse	3.9 mA	4.5 to 5.5	-40 to +85	SSOP
MCP3909	1000:1	0.1%	1, 2, 8, 16	SPI	3.9 mA	4.5 to 5.5	-40 to +85	SSOP

### Mixed Signal – Digital-to-Analog Converters

Product	Resolution (Bits)	DAC Channels	Interface	Voltage Reference	Output Settling Time (µs)	DNL (±LSB)	Typical Operating Current (µA)	Temperature Range (°C)	Packages
MCP4725	12	1	PC™	V <sub>DD</sub>	6	0.75	175	-40 to +125	SOT-23
MCP4728	12	4	PC™	Int	6	0.75	250	-40 to +125	MSOP
MCP4801/111/21	8/10/12	1	SPI	Int	4.5	0.5/0.5/0.75	330	-40 to +125	2x3 DFN, MSOP, PDIP, SOIC
MCP4802/12/22	8/10/12	2	SPI	Int	4.5	0.5/0.5/0.75	415	-40 to +125	MSOP, PDIP, SOIC
MCP4901/111/21	8/10/12	1	SPI	Ext	4.5	0.5/0.5/0.75	175	-40 to +125	2x3 DFN, MSOP, PDIP, SOIC
MCP4902/12/22	8/10/12	2	SPI	Ext	4.5	0.5/0.5/0.75	350	-40 to +125	PDIP, SOIC, TSSOP
TC1320/1	8/10	1	SMbus	Ext	10	0.8/2	350	-40 to +85	MSOP, SOIC

### Interface – mTouch™ AR1000 Resistive Touch Screen Controllers

Product	Type	Communication	Touch Screens Supported	A/D	Resolution	Power	Points per second	Baud Rate	Operating Temperature Range (°C)	Static Protection	5 ku Pricing <sup>1</sup>	Special Features	Package
AR1010	Analog Resistive	UART	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 X 1024	3.3V DC ±5% 5.5V DC ±5%	140 pps	Standard 9600	-40 to +85	Per schematic	\$1.39	Controller driven calibration & Universal for all touch screens	20-pin SSOP (SS), SOIC (SO), QFN (ML)
AR1020	Analog Resistive	SPI, PC™	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 X 1024	3.3V DC ±5% 5.5V DC ±5%	140 pps	Standard 9600	-40 to +85	Per schematic	\$1.39	Controller driven calibration & Universal for all touch screens	20-pin SSOP (SS), SOIC (SO), QFN (ML)

### Interface – Controller Area Network (CAN), Infrared, LIN Transceivers, Ethernet, Serial Peripherals, USB

Product	Description	Operating Temperature Range (°C)	Other Features	Packages
MCP2515	Stand-Alone CAN Controller with SPI Interface	-40 to +125	3 TX Buffers, 2 RX Buffers, 6 Filters, 2 Masks, Interrupt output, MCP2510 upgrade	PDIP, SOIC, TSSOP
MCP2551	CAN (Controller Area Network), High-Speed CAN Transceiver	-40 to +125	1 Mbps max. CAN bus speed, ISO11898 compatible, Industry standard pinout	PDIP, SOIC
MCP202(1/2)	LIN (Local Interconnect Network), LIN Transceiver with Voltage Regulator	-40 to +125	V <sub>REG</sub> = 5.0 ± 3%, 3.3 ± 3% @ 50 mA, V <sub>CC</sub> Range = 7.4 to 18V, Max Baud Rate = 20 Kbaud, Supports LIN Specs: 1.3, 2.0, 2.1, SAE J2602, Exceeds Automotive OEM ESD/EMC Requirements	PDIP, SOIC, TSSOP, DFN
MCP200(3/4)	Stand-alone LIN Transceiver	-40 to +125	V <sub>CC</sub> Range = 6 to 27V, Max Baud Rate = 20 Kbaud, Supports LIN Specs 1.3, 2.0, 2.1, SAE J2602, Exceeds Automotive OEM ESD/EMC Requirements	PDIP, SOIC, DFN
MCP23X09/18	8-bit I/O Port Expander, 16-bit I/O Port Expander	-40 to +125	PC (up to 3.4 MHz) or SPI (up to 10 MHz) interface, 25 mA source/sink per I/O	PDIP, SDIP, SOIC, SSOP
MCP212(0/2), MCP2140A, MCP215(0/5)	Infrared IrDA Encoders, Decoders, Protocol Handlers	-40 to +85	UART to IR encoder/decoder w/hardware & software baud rate selection, IrDA® Standard protocol handler plus encoder/decoder	PDIP, SDIP, SOIC, SSOP
MCP2200	UART to USB Protocol Converter	-40 to +85	USB 2.0 Compliant, 8 GPIO, Supports High-speed USB (12 Mbps)	SOIC, SSOP, QFN
ENC28J60	Stand-Alone 10 Base-T Ethernet Controller with SPI Interface	-40 to +85	Ethernet Controller, 8 KB RAM Buffer, Integrated 10 BASE-T PHY	SPDIP, SOIC, SSOP, QFN
ENC424J600	Stand-Alone 10/100 Base-T Ethernet Controller with SPI and Parallel Interface	-40 to +85	Ethernet Controller, 24 KB RAM Buffer, Cryptographic Security Engine, 10/100 Base-T PHY	TQFP, QFN
ENC624J600	Stand-Alone 10/100 Base-T Ethernet Controller with SPI and Parallel Interface	-40 to +85	Ethernet Controller, 24 KB RAM Buffer, Cryptographic Security Engine, 10/100 Base-T PHY	TQFP

### Safety & Security – Smoke Detector and Horn Driver ICs

Product	Horn Driver	Detection Method	Low Battery Detection	Alarm Memory	Alarm Interconnect	Hush/Sensitivity Timer	Operating Temperature Range (°C)	Packages
RE46C140/1/3/4/5	Yes	Photo	Yes	No	Yes	140/4/5	-25 to +75	PDIP, SOIC
RE46C12X & 152	Yes	Ion	Yes	No	Not 120	122/7, 152	-10 to +60	PDIP
RE46C10X & 11X	Yes	Just Driver	5/7/9/19	NA	9/19	None	See Datasheet	See Datasheet
RE46C162/3, 5/6/7/8	Yes	Ion/Photo	Yes	Yes	Yes	Yes	-25 to +75	PDIP, SOIC

## Motor Drivers - Stepper Motors, DC Motors and 3 Phase BLDC Fan Controllers

Product	Motor Type	Input Voltage Range (V)	Internal/External FETs	Output Current (mA)	Control Scheme	Motor Speed Output	Shutdown Protection	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	Overcurrent, Overtemperature, Under Voltage	-20 to +85	Dual Full Bridge Motor Driver for Stepper Motors, Pin Compatible with Allegro 6219	24-pin SOP
MTS2916A	One Bipolar Stepper Motor or Two DC Motors	10.0 to 40.0	Internal	750	Direct PWM Input, Current Limit Control, Microstepping	No	Overcurrent, Overtemperature, Under Voltage	-20 to +85	Dual Full Bridge Motor Driver for Stepper Motors, Pin Compatible with Allegro 2916	24-pin SOP
MTD6501C	3 Phase Brushless Fan	2.0 to 14.0	Internal	800	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Short Circuit, Overtemperature, Motor Lock-up	-10 to +85	3-Phase BLDC Sinusoidal Sensorless Fan Motor Driver	8-pin SOP
MTD6501D	3 Phase Brushless Fan	2.0 to 14.0	Internal	500	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Short Circuit, Overtemperature, Motor Lock-up	-30 to +95	3-Phase BLDC Sinusoidal Sensorless Fan Motor Driver, Boost Mode	10-pin MSOP

## RF Products

### WLAN Power Amplifiers

Product	Description	Frequency	Linear Power (dBm) @ 3% EVM	Package
SST11LP12-QCF	802.11ah, High Power	4.9-5.8 GHz	21	3x3 QFN
SST11CP15-QUBE	802.11ah, Low DC Current	4.9-5.8 GHz	19	2x2 QFN
SST12CP11-QVCE	802.11gh, Ultra High Power	2.4-2.5 GHz	25.5	3x3 QFN
SST12LP07-QVCE-MM007	802.11g, High Power (Pin Compatible with TQP777002)	2.4-2.5 GHz	21.5	3x3 QFN
SST12LP07A-QXBE	802.11b/g/n	2.4-2.5 GHz	21	12-pin 2x2 QFN
SST12LP07E-QX8E	802.11b/g	2.4-2.5 GHz	20.5	8-pin 2x2 XSON
SST12LP08-QX8E	802.11b/g/n	2.4-2.5 GHz	20	6-pin 1.5x1.5 QFN
SST12LP08-QXBE	802.11b/g/n	2.4-2.5 GHz	20	12-pin 2x2 QFN
SST12LP08A-QX8E	802.11b/g/n	2.4-2.5 GHz	20.5	8-pin 2x2 XSON
SST12LP14A-QVCE	802.11g (General Purpose)	2.4-2.5 GHz	21.5	3x3 QFN
SST12LP14C-QVCE	802.11g (Pin Compatible with 12LP14)	2.4-2.5 GHz	18	3x3 QFN
SST12LP14E-QX8E	802.11b/g/n (Low DC Current for Embedded)	2.4-2.5 GHz	18.5	6-pin 1.5x1.5 QFN
SST12LP14E-QX8E	802.11b/g/n (Low DC Current for Embedded)	2.4-2.5 GHz	18.5	8-pin 2x2 QFN
SST12LP15A-QVCE	802.11b/g/n, High Power	2.4-2.5 GHz	22.5	3x3 QFN
SST12LP15B-QVCE	802.11b/g/n, High Power	2.4-2.5 GHz	22.5	3x3 QFN
SST12LP15B-QXBE	802.11b/g/n, High Power	2.4-2.5 GHz	22.5	2x2 QFN
SST12LP17E-QU8E	802.11b/g/n, Fully Matched	2.4-2.5 GHz	18	2x2 QFN
SST12LP19E-QX8E	802.11b/g/n (Low DC Current for Embedded)	2.4-2.5 GHz	19	6-pin 1.5x1.5 QFN
SST12LP19E-QX8E	802.11b/g/n (Low DC Current for Embedded)	2.4-2.5 GHz	19	8-pin 2x2 QFN
SST13LP05-MLCF	802.11a/b/g Dual-Band (Fully Matched)	2.4-2.5 GHz 5.1-5.8 GHz	18.5 17.5	4x4 LGA

### Front End Modules

Product	Description	Frequency	NF (dB)/PA Linear Power (dBm) @ 3% EVM	Package
SST12LF01-QDE	802.11b/g Front End Module PA+LNA	2.4-2.5 GHz	1.5 / 21.5	4x4 QFN
SST12LF02-QXCE	802.11b/g Front End Module PA (Fully Matched) + SP3T SW	2.4-2.5 GHz	18.5	3x3 QFN

### Low-Noise Amplifiers

Product	Description	Frequency	NF (dB)	Package
SST12LN01-QU6F	Low-Noise Amplifier (Fully Matched)	2.4 GHz	1.5	3x1.6 QFN

## Real-Time Clocks

Bus	Product	Alarm Settings <sup>1)</sup>	Outputs	Digital Trim (Adj./Range)	SRAM <sup>3)</sup> (Bytes)	EEPROM (Kbits)	ID <sup>2)</sup> /MAC	Minimum Voltage	I <sub>BAT</sub> (nA)	Additional Features	Pins	Packages	Bus
I <sup>2</sup> C	MCP79410	2	1 MFP (IRQ/CLK)	+1 ppm/±127 ppm	64	1	Blank ID	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	700	Battery switchover, Power-fail timestamp	8	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)	I <sup>2</sup> C
	MCP79411	2	1 MFP (IRQ/CLK)	+1 ppm/±127 ppm	64	1	EUI-48	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	700	Battery switchover, Power-fail timestamp	8	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)	
	MCP79412	2	1 MFP (IRQ/CLK)	+1 ppm/±127 ppm	64	1	EUI-64	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	700	Battery switchover, Power-fail timestamp	8	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)	
	MCP79400	2	1 MFP (IRQ/CLK)	+1 ppm/±127 ppm	64	0	Blank ID	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	700	Battery switchover, Power-fail timestamp	8	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)	
	MCP79401	2	1 MFP (IRQ/CLK)	+1 ppm/±127 ppm	64	0	EUI-48	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	700	Battery switchover, Power-fail timestamp	8	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)	
	MCP79402	2	1 MFP (IRQ/CLK)	+1 ppm/±127 ppm	64	0	EUI-64	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	700	Battery switchover, Power-fail timestamp	8	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)	

- Alarm settings on 1 second count.
- Unique ID is 64 bits of protected EEPROM.
- Battery backed SRAM.

## Serial Memory Products

Bus	Product	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	E <sub>W</sub> Endurance (Minimum)	Data Retention (Minimum)	Max. Write Speeds	Max. Standby Current (0.5V/85°C)	Write Protect		Protected Array Size	5-ku Pricing <sup>†</sup>	Special/Unique Features	Packages	Bus
												Hardware	Software					
<b>Serial SRAM</b>																		
SPI	23X640	R	64 Kb	x8	20 MHz	1.5V-1.95V 2.7V-3.6V	-40°C to +125°C	∞	Volatile	0 ms	4 µA	-	-	-	\$0.51	20 MHz @ 3V, 32 byte page buffer, Zero write cycle time, Infinite endurance	SOIC (SN), PDIP (P), TSSOP (ST)	SPI
	23X256	R	256 Kb	x8	20 MHz	1.5V-1.95V 2.7V-3.6V	-40°C to +125°C	∞	Volatile	0 ms	4 µA	-	-	-	\$0.96	20 MHz @ 3V, 32 byte page buffer, Zero write cycle time, Infinite endurance	SOIC (SN), PDIP (P), TSSOP (ST)	
<b>Serial EEPROM</b>																		
UNI/O Bus	11X010	R	1 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, 1/2, 1/4	\$0.23	Single I/O for all clock, data, control and write protection	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	UNI/O Bus
	11X0020/E48	R	2 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, 1/2, 1/4	\$0.25	Single I/O for all clock, data, control and write protection, Unique EUI-48™/EUI-64™, MAC address option available	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
	11X040	R	4 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, 1/2, 1/4	\$0.26	Single I/O for all clock, data, control and write protection	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
	11X080	R	8 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, 1/2, 1/4	\$0.30	Single I/O for all clock, data, control and write protection	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
	11X160	R	16 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, 1/2, 1/4	\$0.33	Single I/O for all clock, data, control and write protection	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
	24X000	R	128 b	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	4 ms	1 µA	-	-	-	\$0.17	100 KHz operation from 1.7V to 4.5V	SOIC (SN), TSSOP (ST), 5-SOT-23 (OT), DFN (MF), PDIP (P)	
I <sup>2</sup> C	24X001/014	R	1 Kb	x8	400 kHz	1.7V-5.5V 1.5V-3.6V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	-	W, 1/2	\$0.18	Address pin option - connect up to 8 devices on bus, Very low voltage option	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), SC70 (LT)	I <sup>2</sup> C
	24X002/024/E48	R	2 Kb	x8	400 kHz	1.7V-5.5V 1.5V-3.6V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, 1/2	\$0.20	Address pin option - connect up to 8 devices on bus, Very low voltage option, Unique EUI-48™/EUI-64™ MAC address option available	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), SC70 (LT)	
	34X002	R	2 Kb	x8	1 MHz	1.7V-5.5V 1.5V-3.6V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	✓	W, 1/2	\$0.18	1 MHz @ 2.5V, Permanent and restable software WP - DIMM-DDR2/3	SOIC (SN), TSSOP (ST), PDIP (P), 6-SOT-23 (OT), DFN (MNY), MSOP (MS)	
	24X004	R	4 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, 1/2	\$0.21	400 KHz @ 2.5V, 16 byte page write buffer, No address pins	SOIC (SN), PDIP (P), TSSOP (ST), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	24X008	R	8 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, 1/2	\$0.23	400 KHz @ 2.5V, 16 byte page write buffer, No address pins	SOIC (SN), TSSOP (ST), 5-SOT-23 (OT), PDIP (P), DFN (MNY), MSOP (MS)	
	24X016	R	16 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, 1/2	\$0.25	400 KHz @ 2.5V, 16 byte page write buffer, No address pins	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	24X032A	R	32 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, 1/2	\$0.31	400 KHz @ 2.5V, 32 byte page write buffer, connect up to 8 devices on bus	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	24X064/65	R	64 Kb	x8	1 MHz	1.7V-5.5V	-40°C to +125°C	1M, 10M	200 Years	5 ms	1 µA	✓	-	W, 1/2	\$0.38	1 MHz @ 2.5V, 32/64 byte page, Relocatable 4 Kb block with 10M cycles endurance	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	24X0128	R	128 Kb	x8	1 MHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W	\$0.54	1 MHz @ 2.5V, 64 byte page, connect up to 8 devices on bus	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS), WLCSP (CS)	
	24X0256	R	256 Kb	x8	1 MHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W	\$0.83	1 MHz @ 2.5V, 64 byte page, connect up to 8 devices on bus	SOIC (SN), TSSOP (ST), SOU (SM), PDIP (P), DFN (MF), MSOP (MS), WLCSP (CS)	
	24X0512	R	512 Kb	x8	1 MHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W	\$1.50	1 MHz @ 2.5V, 128 byte page, connect up to 8 devices on bus	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MF), SOU (SM), WLCSP (CS)	
	24X01025	R	1 Mb	x8	1 MHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	5 µA	✓	-	W	\$3.14	1 MHz @ 2.5V, 128 byte page, connect up to 4 devices on bus	SOIC (SN), SOU (SM), PDIP (P)	

- All devices are Pb-Free and RoHS compliant.
  - ESD protection > 4 kV (HBM); >400V (MM) on all pins.
  - Write Protect (WP): W = Whole Array, 1/2 = Half Array, 1/4 = Quarter Array.
  - Factory program and unique ID options available.
  - Die and wafer options available on all devices.
- † - Pricing subject to change; please contact your Microchip representative for most current pricing.

## Serial Memory Products

Bus	Product	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	EW Endurance (Minimum)	Data Retention (Minimum)	Max. Write Speeds	Max. Standby Current (65.5V, 85°C)	Write Protect		Protected Array Size	5-yr Pricing†	Special/Unique Features	Packages	Bus
												Hardware	Software					
<b>Serial EEPROM (Cont.)</b>																		
Microwire	93XX46A/B/C	R	1 Kb	x8/x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	-	-	-	\$0.18	ORG pin to select word size on 46C version	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	Microwire
	93XX56A/B/C	R	2 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	-	-	-	\$0.20	ORG pin to select word size in 56C version	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	93XX66A/B/C	R	4 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	-	-	-	\$0.21	ORG pin to select word size in 66C version	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	93XX76A/B/C	R	8 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	✓	-	W	\$0.30	ORG pin to select word size in 76C version	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	93XX86A/B/C	R	16 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	✓	-	W	\$0.33	ORG pin to select word size in 86C version	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
SPI	25XX010A	R	1 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.30	5 MHz @ 2.5V, Status register, 16 byte page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	SPI
	25XX020A/E48	R	2 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.31	5 MHz @ 2.5V, Status register, 16 byte page, Unique EUI-48™/EUI-64™ MAC address option available	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	25XX040A	R	4 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.33	5 MHz @ 2.5V, Status register, 16 byte page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	25XX080C/D	R	8 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.40	16/32 byte page, 5 MHz @ 2.5V, Status register	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS)	
	25XX160C/D	R	16 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.41	16/32 byte page, 5 MHz @ 2.5V, Status register	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS)	
	25XX320A	R	32 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.45	5 MHz @ 2.5V, Status register, 32 byte page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS)	
	25XX640A	R	64 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.46	5 MHz @ 2.5V, Status register, 32 byte page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY, MF), MSOP (MS)	
	25XX128	R	128 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$0.74	5 MHz @ 2.5V, Status register, 64 byte page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MF)	
	25XX256	R	256 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	\$1.01	5 MHz @ 2.5V, Status register, 64 byte page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MF), SOU (SM)	
	25XX512	R	512 Kb	x8	20 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	10 µA	✓	✓	W, ½, ¼	\$1.53	10 MHz @ 2.5V, Deep power down, Status register, Page/Sector/Chip erase	SOIC (SN), PDIP (P), DFN (MF), SOU (SM)	
25XX1024	R	1 Mb	x8	20 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	12 µA	✓	✓	W, ½, ¼	\$2.59	10 MHz @ 2.5V, Deep power down, Status register, Page/Sector/Chip erase	PDIP (P), DFN (MF), SOU (SM)		

- All devices are Pb-Free and RoHS compliant.
  - ESD protection > 4 kV (HBM); >400V (MM) on all pins.
  - Write Protect (WP): W = Whole Array, ½ = Half Array, ¼ = Quarter Array.
  - Factory program and unique ID options available.
  - Die and wafer options available on all devices.
- † - Pricing subject to change; please contact your Microchip representative for most current pricing.

## SST NOR Flash Memory

Voltage	Density	Parallel	SPI (Serial)	SQI™ (Quad-bit)	FWH/LPC	Voltage	Density	Parallel	SPI (Serial)	SQI™ (Quad-bit)	FWH/LPC
5V	512 Kbit	-	-	-	-	1.8V	512 Kbit	-	25WF512	-	-
	1 Mbit	39SF010A	-	-	-		1 Mbit	-	25WF010	-	-
	2 Mbit	39SF020A	-	-	-		2 Mbit	-	25WF020	-	-
	4 Mbit	39SF040	-	-	-		4 Mbit	39WF400B	25WF040	-	-
3V	512 Kbit	39VF512	25VF512A	-	-		8 Mbit	39WF800B	25WF080	26VF080B	-
	1 Mbit	39VF010	25VF010A	-	-		16 Mbit	39WF160X	-	26VF016B	-
	2 Mbit	39VF020, 39VF200A	25VF020B	-	-		32 Mbit	-	-	26VF032/26VF032B	-
	4 Mbit	39VF040, 39VF400A	25VF040B	-	-		64 Mbit	-	-	26VF064B	-
	8 Mbit	39VF800A	25VF080B	-	49LF008B, 49LF080B						
	16 Mbit	39VF160XC, 39VF168X	25VF016B	26VF016/26VF016B	49LF016C, 49LF160C						
	32 Mbit	39VF320XB	25VF032B	26VF032/26VF032B	-						
	64 Mbit	39VF640XB, 39VF640X	25VF064C	26VF064B	-						

X = 1 or 2 for 39 Series  
X = 1, 2, 3 or 4 for 36 and 38 Series



## Wireless Products

### IEEE 802.11 Modules

Product	Pin Count	Frequency Range (GHz)	Sensitivity (dBm)	Power Output (dBm)	RSSI	TX Power Consumption (mA)	RX Power Consumption (mA)	Clock	Sleep	MAC	MAC Features	Encryption	Interface	Volume Pricing <sup>†</sup>	Packages
ZG2100MC	36	2.412-2.484	-91	10	Yes	156	85	25 MHz	0.1	Yes	802.11	WPA, WPA2, WEP	4-wire SPI	\$26.57	36 Module
ZG2101MC	36	2.412-2.484	-91	10	Yes	156	85	25 MHz	0.1	Yes	802.11	WPA, WPA2, WEP	4-wire SPI	\$26.57	36 Module

### IEEE 802.15.4 Transceivers/Modules

Product	Pin Count	Frequency Range (GHz)	Sensitivity (dBm)	Power Output (dBm)	RSSI	TX Power Consumption (mA)	RX Power Consumption (mA)	Clock	Sleep	MAC	MAC Features	Encryption	Interface	Volume Pricing <sup>†</sup>	Packages
MRF24J40	40	2.405-2.48	-95	0	Yes	23	19	20 MHz	Yes	Yes	CSMA-CA	AES128	4-wire SPI	\$2.36	40/QFN
MRF24J40MA	12	2.405-2.48	-95	0	Yes	23	19	20 MHz	Yes	Yes	CSMA-CA	AES128	4-wire SPI	\$8.99	12/Module
MRF24J40MB	12	2.405-2.475	-102	20	Yes	130	25	20 MHz	Yes	Yes	CSMA-CA	AES128	4-wire SPI	\$15.70	12/Module
MRF24J40MC	12	2.405-2.475	-102	20	Yes	130	25	20 MHz	Yes	Yes	CSMA-CA	AES128	4-wire SPI	\$15.70	12/Module

### Sub-GHz Transceivers/Modules

Product	Pin Count	Frequency Range (MHz)	Sensitivity (dBm)	Power Output (dBm)	RSSI	TX Power Consumption (mA)	RX Power Consumption (mA)	Clock	Sleep	Interface	Volume Pricing <sup>†</sup>	Packages
MRF49XA	16	433/868/915	-110	7	Yes	15 mA @ 0 dBm		10 MHz	Yes	4-wire SPI	\$1.71	16/TSSOP
MRF89XA	32	868/915/950	-113	12.5	Yes	25 mA @ 10 dBm		12.8 MHz	Yes	4-wire SPI	\$2.05	32/TQFN

### rPIC™ Transmitters + PIC® MCUs

Product	I/O Pins	Frequency Range (MHz)	Program Bytes	Program Words	EEPROM	RAM (bytes)	Digital Timer	Watch Dog Timer	Max. Speed (MHz)	ICSP™	Modulation	Data Rate (kbps)	Output Power (dBm)	Operating Voltage	Other Features	Volume Pricing <sup>†</sup>	Packages
rPIC12F675F	6	380-450	1792	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0-5.5	4x10-bit A/D, Comparator	\$2.11	20/SSOP 208 mil
rPIC12F675H	6	850-930	1792	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0-5.5	4x10-bit A/D, Comparator	\$2.11	20/SSOP 208 mil
rPIC12F675K	6	290-350	1792	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0-5.5	4x10-bit A/D, Comparator	\$2.11	20/SSOP 208 mil

### RF Receivers

Product	Frequency Range (MHz)	Modulation	Data Rate (kbps)	Sensitivity (dBm)	IF Frequency Range (MHz)	Operating Voltage	RSSI	Selectable LNA Gain	Volume Pricing <sup>†</sup>	Packages
rRXD0420	300-450	ASK, FSK, FM	80	-111	0.455-21.4	2.5-5.5	Yes	Yes	\$1.71	32/LQFP
rRXD0920	800-930	ASK, FSK, FM	80	-109	0.455-21.4	2.5-5.5	Yes	Yes	\$2.62	32/LQFP

† - Pricing subject to change; please contact your Microchip representative for most current pricing.

## Terms and Definitions

1 KB	1024 bytes	EEPROM	Electrically Erasable Programmable Read Only Memory	mTouch™	Proprietary Touch Sensing Technology
1 Kw	1024 words	EFT	Electrical Fast Transient	PIC24	16-bit Core
18F/PIC18	16-bit instruction word – 75/83 instructions	EMC	Electromagnetic Compatibility	PIC32	32-bit Core
ADC	Analog to Digital Converter	EMI	Electromagnetic Interference	PLVD	Programmable Low Voltage Detect
AUSART	Addressable Universal Synchronous Asynchronous Receiver Transceiver	EMR/Enhanced-MidRange	14-bit instruction word – 49 instructions (denoted as PIC1XF1XXX)	POR/POOR	Power ON Reset/Power ON/OFF Reset
BL/Baseline	12-bit instruction word – 33 instructions	ESD	Electrostatic Discharge	PWM	Pulse Width Modulation
BOR/PBOR	Brown Out Reset/Programmable Brown Out Reset	ELUSART	Enhanced Universal Synchronous Asynchronous Receiver Transceiver	RAM	Random Access Memory
CCP/ECCP	Capture Compare PWM/Enhanced Capture Compare PWM	EWDT/WDT	Extended Watch Dog Timer/Watch Dog Timer	RTCC	Real-Time Clock Calendar
CLC	Configurable Logic Cell	HV	High Voltage	Source/Sink Current	All Products Support 25 mA per I/O
Comp	Capacitive Sensing Implemented via Comparator	ICD	In-Circuit Debug	SR Latch	Set Reset Latch
CRC	Cyclical Redundancy Check	ICE	In-Circuit Emulation	SRAM	Static Random Access Memory
CSP	mTouch – Capacitive Sensing Module	ICSP™	In-Circuit Serial Programming™	SPI	Serial Peripheral Interface
CSM	Chip Scale Package	IDE	Integrated Development Environment	T1G	Timer 1 Gate
CTMU	mTouch – Charge Time Measurement Unit	LCD	Liquid Crystal Display	USART	Universal Synchronous Asynchronous Receiver Transceiver
CVD	Charge Voltage Divide (Capacitive Sensing Implemented via ADC)	LDO	Low Drop-Out voltage regulator	USB	Universal Serial Bus
CWG	Complimentary Waveform Generator	LF	Low Power Flash	USB (Full Speed)	12 Mb/s Data Rate
DOS	Direct Digital Synthesis	MIFC/PC	Master Inter-Integrated Circuit bus/Inter-Integrated Circuit bus	USB OTG	USB On-The-Go
DSM	Data Signal Modulator	MIPS	Million Instructions Per Second	XLP	nanoWatt XLP eXtreme Low Power Technology
dsPIC	16-bit Core with DSP	MR/Mid-Range	14-bit instruction word – 35 instructions		
ECAN	Enhanced Controller Area Network	MSSP/SSP	Master/Synchronous Serial Port (I²C & SPI Peripheral)		

## Product Packages

Small Outline		Dual Flat No Lead DFN	Quad Flat No Lead QFN	Plastic Shrink Small Outline SSOP	Plastic Small Outline SOIC
Bumped Die (WLCSP)	3-lead DDPACK (EB)	8-lead DFN (MC) 2 x 3 x 0.9 mm	16-lead QFN (MG) 3 x 3 x 0.9 mm	8-lead MSOP (MS)	8-lead SOIC (SN)
Die/Wafer (WLCSP)	5-lead DDPACK (ET)	8-lead TDFN (MN) 2 x 3 x 0.75 mm	20-lead QFN (ML) 4 x 4 x 0.9 mm	10-lead MSOP (UN)	8-lead SOIC (SM)
3-lead SC70 (LB)	3-lead SC-89	8-lead UDFN (MU) 2 x 3 x 0.5 mm	20-lead QFN (MQ) 5 x 5 x 0.9 mm	16-lead QSOP (QR)	14-lead SOIC (SL)
5-lead SC70 (LT)	3-lead TO-92 (TO/ZB)	8-lead DFN (MF) 3 x 3 x 0.9 mm	28-lead UQFN (MV) 4 x 4 x 0.5 mm	20-lead SSOP (SS)	16-lead SOIC (SL)
3-lead SOT-23 (TT/CB)	5-lead TO-220 (AT)	8-lead DFN (MD) 4 x 4 x 0.9 mm	28-lead QFN (MM & ML) 6 x 6 x 0.9 mm	28-lead SSOP (SS)	18-lead SOIC (SO)
5-lead SOT-23 (OT)		8-lead DFN (MF) 6 x 5 x 0.9 mm	40-lead UQFN (MV) 5 x 5 x 0.5 mm	<b>Plastic Thin Shrink Small Outline TSSOP</b>	20-lead SOIC (SO)
6-lead SOT-23 (OT/CH)			44-lead QFN (ML) 8 x 8 x 0.9 mm	8-lead TSSOP (ST)	28-lead SOIC (SO)
3-SOT-223 (DB)			64-lead QFN (MR) 9 x 9 x 0.9 mm	14-lead TSSOP (ST)	
4-lead SOT-143 (RC)				20-lead TSSOP (ST)	

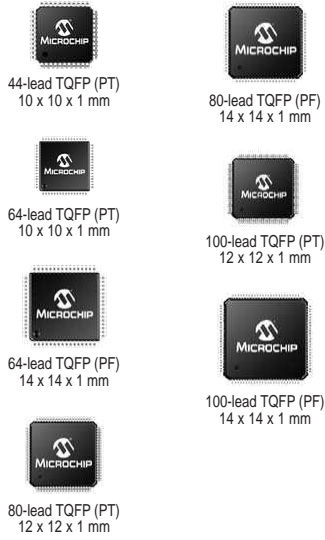
Packages are shown approximate size.

Additional packages are available – contact your local Microchip sales office for additional information.

For detailed dimensions, view our Package Drawing and Dimensions Specification at: [www.microchip.com/packaging](http://www.microchip.com/packaging)

## Product Packages

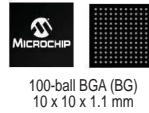
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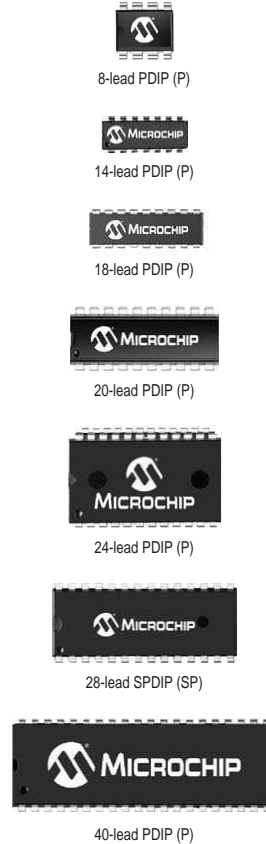
### Plastic Quad Flatpack QFP



### Ball Grid Array BGA



### Plastic Dual In-Line PDIP

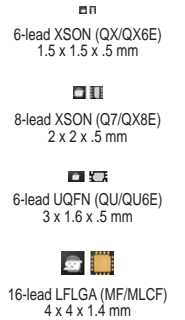


### Additional SST Package Options

#### NOR Flash Memory



#### RF Devices



#### 8051-based Microcontrollers



Packages are shown approximate size.

Additional packages are available – contact your local Microchip sales office for additional information.

For detailed dimensions, view our Package Drawing and Dimensions Specification at: [www.microchip.com/packaging](http://www.microchip.com/packaging)

## Support

Microchip is committed to supporting its customers in developing products faster and more efficiently. We maintain a worldwide network of field applications engineers and technical support ready to provide product and system assistance. In addition, the following service areas are available at [www.microchip.com](http://www.microchip.com):

- **Support** link provides a way to get questions answered fast: <http://support.microchip.com>
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- **Buy** link provides locations of Microchip Sales Channel Partners: [www.microchip.com/sales](http://www.microchip.com/sales)

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## Training

If additional training interests you, then Microchip can help. We continue to expand our technical training options, offering a growing list of courses and in-depth curriculum locally, as well as significant online resources – whenever you want to use them.

- Regional Training Centers: [www.microchip.com/rtc](http://www.microchip.com/rtc)
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