



## Focus Product Selector Guide

Featuring:

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

dsPIC® Digital Signal Controllers

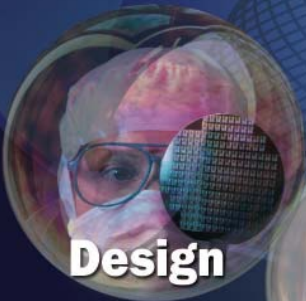
Analog & Interface Products

EEPROM, SRAM and Flash Memory

Wireless and RF Products

# Microchip

# A Partner in Your Success



**Design**



**Training**



**Collateral**



**Development**



**Support**



**Availability**

# Microchip: A Partner in Your Success

Microchip is a leading provider of microcontroller and analog semiconductors, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Offering outstanding technical support along with dependable delivery and quality, Microchip serves over 63,000 customers in more than 65 countries who are designing high-volume embedded control applications in the consumer, automotive, office-automation, communications and industrial-control markets worldwide.

## 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/E offers up to 70 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 70 MIPS 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	Mixed Signal .....	24
16-bit PIC Microcontrollers (PIC24F).....	10	Interface .....	26
16-bit PIC Microcontrollers (PIC24H/E) .....	13	Safety & Security .....	26
32-bit PIC Microcontrollers .....	15	Motor Drivers .....	26
dsPIC30F DSC Families .....	17	Real Time Clock/Calendar (RTCC).....	27
dsPIC33 DSC General Purpose Family.....	17	Serial EEPROM and Serial SRAM .....	28
dsPIC33 DSC Motor Control and Power Conversion Family....	19	Serial Flash Memory.....	30
dsPIC33 DSC SMPS and Digital Power Conversion Family.....	21	LPC Firmware Flash/Firmware Hub Flash Memory .....	30
Analog and Interface Products		Parallel Flash Memory .....	31
Thermal Management .....	22	RF Products .....	32
Power Management .....	22	Wireless Products .....	33
Linear .....	24	Terms and Definitions .....	33
		Packaging.....	34



## 8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins			Core	Memory			Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels			Analog Sensing & Measurement					Digital					Communication					Monitors						
		Total	I/O	Core		Program	Self-Read/Write	Data RAM (B)		Data EE (B)	Maximum Speed		Internal Oscillator	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (90/8b)	PWM	CCP	ECCP	CW/C/COG	INCO	PSMC	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	IC™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD
PIC16F1824	R	14	12	EMR	7 KB 4 Kw	RW	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	-	8	-	8	-	2	-	-	-	2	2	-	-	-	-	4	1	-	1	1	-	-	-	BOR	SW	✓
PIC16F630	R	14	12	MR	1.75 KB 1 Kw	-	64	128	2V-5.5V	20 MHz	4 MHz	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	BOR	-	-
PIC16F1454	NR	14	12	EMR	7 KB 4 Kw	RW	512	-	1.8V-5.5V	48 MHz	48 MHz, 31 kHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1	-	✓	-	-	PBOR	SW	-
PIC16F636	R	14	12	MR	3.5 KB 2 Kw	-	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	-	-	-	-	2	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	BOR	-	-
PIC16F1825	R	14	12	EMR	14 KB 8 Kw	RW	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	-	8	-	8	-	2	-	-	-	-	2	2	-	-	-	4	1	-	1	1	-	-	-	BOR	SW	✓
PIC16F676	R	14	12	MR	1.75 KB 1 Kw	-	64	128	2V-5.5V	20 MHz	4 MHz	-	8	-	8	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	BOR	-	-
PIC16F684	R	14	12	MR	3.5 KB 2 Kw	-	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	8	-	8	-	2	-	-	-	1	-	-	-	-	2	1	-	-	-	-	-	-	-	BOR	-	-
PIC16F688	R	14	12	MR	7 KB 4 Kw	R	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	8	-	8	-	2	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	BOR	-	-
PIC16F1455	NR	14	12	EMR	14 KB 8 Kw	RW	1024	-	1.8V-5.5V	48 MHz	48 MHz, 31 kHz	-	5	-	5	-	2	-	-	-	2	-	-	-	-	2	1	-	1	1	-	✓	-	-	PBOR	SW	-
PIC16F54	R	18	12	BL	0.75 KB 0.50 Kw	-	25	-	2V-5.5V	20 MHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	
PIC16F716	R	18	13	MR	3.5 KB 2 Kw	-	128	-	2V-5.5V	20 MHz	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	2	1	-	-	-	-	-	-	BOR	-	-	
PIC16F1826	R	18	16	EMR	3.5 KB 2 Kw	RW	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	-	1	-	-	-	-	2	1	-	1	1	-	-	-	BOR	SW	✓
PIC16F1827	R	18	16	EMR	7 KB 4 Kw	RW	384	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	2	-	-	-	4	1	-	1	2	-	-	-	BOR	SW	✓	
PIC16F1847	R	18	16	EMR	14 KB 8 Kw	RW	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	-	-	-	12	-	2	-	-	-	2	2	-	-	-	4	1	-	1	2	-	-	-	PBOR	SW	✓	
PIC16F1507	R	20	18	EMR	3.5 KB 2 Kw	RW	128	-	1.8V-5.5V	20 MHz	16 MHz	-	-	-	12	-	-	-	-	4	-	-	1/0	1	-	1	2	1	-	-	-	-	-	-	PBOR	SW	-
PIC16F720	R	20	18	MR	3.5 KB 2 Kw	RW	128	-	1.8V-5.5V	16 MHz	16 MHz, 500 kHz	-	12	12	-	-	-	-	-	1	-	-	-	-	-	2	1	1	-	1	-	-	-	BOR	SW	-	
PIC16F1508	R	20	18	EMR	7 KB 4 Kw	RW	256	-	1.8V-5.5V	20 MHz	16 MHz	-	2	-	12	-	2	-	-	4	-	-	1/0	1	-	1	2	1	-	1	1	-	-	-	PBOR	SW	-
PIC16F1509	R	20	18	EMR	14 KB 8 Kw	RW	512	-	1.8V-5.5V	20 MHz	16 MHz	-	2	-	12	-	2	-	-	4	-	-	1/0	1	-	1	2	1	-	1	1	-	-	-	PBOR	SW	-
PIC16F721	R	20	18	MR	7 KB 4 Kw	RW	256	-	1.8V-5.5V	16 MHz	16 MHz, 500 kHz	-	12	12	-	-	-	-	-	1	-	-	-	-	-	2	1	1	-	1	-	-	-	BOR	SW	-	
PIC16F631	R	20	18	MR	1.75 KB 1 Kw	R	64	128	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	-	-	-	-	2	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	BOR	SW	✓	
PIC16F677	R	20	18	MR	3.5 KB 2 Kw	R	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	BOR	SW	✓	
PIC16F1828	R	20	18	EMR	7 KB 4 Kw	RW	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	2	-	-	-	4	1	-	1	1	-	-	-	BOR	SW	✓	
PIC16F1829	R	20	18	EMR	14 KB 8 Kw	RW	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	2	-	-	-	4	1	-	1	2	-	-	-	BOR	SW	✓	
PIC16F687	R	20	18	MR	3.5 KB 2 Kw	R	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-	BOR	SW	✓	
PIC16F1458	NR	20	18	EMR	7 KB 4 Kw	RW	512	-	1.8V-5.5V	48 MHz	48 MHz, 31 kHz	-	9	-	9	-	2	-	-	2	-	-	-	-	-	2	1	-	1	1	-	✓	-	-	PBOR	SW	-
PIC16F785	R	20	18	MR	3.5 KB 2 Kw	-	128	256	2V-15V	20 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	2	-	2	1	-	-	-	2	1	-	-	-	-	-	-	BOR	SW	-	
PIC16F685	R	20	18	MR	7 KB 4 Kw	R	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	1	-	-	-	-	2	1	-	-	-	-	-	-	BOR	SW	✓	
PIC16F689	R	20	18	MR	7 KB 4 Kw	R	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-	BOR	SW	✓	

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.

\*Integrated Temperature Indicator – Reference Application Note AN1333 for implementation.

Ⓜ - eXtreme Low Power variants available.



## 8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins			Core	Memory			Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital							Communication					Monitors		SR-Latch		
		Total	I/O			Program	Self-Read/Write	Data RAM (B)		Data EE (B)	Maximum Speed			Internal Oscillator	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b)	PWM	CCP	CMWG/COG	NCO	PSMC	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	IC™/SPI	Ethernet (MACPHY)	USB 2.0 Device		CAN	BOR/PBOR
PIC18F23K22	R	28	25	PIC18	8 KB 4 Kw	RW	512	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	17	-	17	-	2	✓	-	-	-	1	1	-	-	-	-	3	-	2	2	-	-	-	PBOR	✓	✓
PIC18F24J10	R	28	21	PIC18	16 KB 8 Kw	RW	1024	-	2V-3.6V	40 MHz	32 kHz	-	10	-	10	-	2	-	-	-	-	2	-	-	-	-	2	-	1	1	-	-	-	BOR	-	-	
PIC18F24K22	R	28	25	PIC18	16 KB 8 Kw	RW	768	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	17	-	17	-	2	✓	-	-	-	1	1	-	-	-	3	-	2	2	-	-	-	PBOR	✓	✓	
PIC16F886	R	28	25	MR	14 KB 8 Kw	RW	368	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	11	-	11	-	2	-	-	-	1	1	-	-	-	1	-	1	1	-	-	-	BOR	SW0	✓		
PIC18F25J10	R	28	21	PIC18	32 KB 16 Kw	RW	1024	-	2V-3.6V	40 MHz	32 kHz	-	10	-	10	-	2	-	-	-	-	2	-	-	-	-	2	-	1	1	-	-	-	BOR	-	-	
PIC18F25K22	R	28	25	PIC18	32 KB 16 Kw	RW	1536	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	17	-	17	-	2	✓	-	-	-	2	3	-	-	-	4	-	2	2	-	-	-	PBOR	✓	✓	
PIC18F24J11	R	28	21	PIC18	16 KB 8 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	10	-	2	✓	-	-	-	-	2	-	-	-	3	-	2	2	-	-	-	BOR	SW0	-	
PIC18F26K20	R	28	25	PIC18	64 KB 32 Kw	RW	3936	1024	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	-	11	-	11	-	2	-	-	-	-	1	1	-	-	-	3	-	1	1	-	-	-	PBOR	✓	-	
PIC18F25J11	R	28	21	PIC18	32 KB 16 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	10	-	2	✓	-	-	-	-	2	-	-	-	3	-	2	2	-	-	-	BOR	SW0	-	
PIC18F24J50	R	28	22	PIC18	16 KB 8 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	10	-	2	✓	-	-	-	-	2	-	-	-	2	3	-	2	2	-	✓	-	BOR	SW0	-
PIC18F26K22	R	28	25	PIC18	64 KB 32 Kw	RW	3896	1024	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	17	-	17	-	2	✓	-	-	-	2	3	-	-	-	3	4	-	2	2	-	-	-	PBOR	✓	✓
PIC18F25K80	R	28	24	PIC18	32 KB 16 Kw	RW	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	-	8	-	-	8	2	✓	-	-	-	4	1	-	-	-	2	3	-	2	1	-	✓	PBOR	✓	-	
PIC18F25J50	R	28	22	PIC18	32 KB 16 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	10	-	2	✓	-	-	-	-	2	-	-	-	2	3	-	2	2	-	✓	-	BOR	SW0	-
PIC18F26J11	R	28	21	PIC18	64 KB 32 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	10	-	2	✓	-	-	-	-	2	-	-	-	2	3	-	2	2	-	-	-	BOR	SW0	-
PIC18F26K80	R	28	24	PIC18	64 KB 32 Kw	RW	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	-	8	-	-	8	2	✓	-	-	-	4	1	-	-	-	2	3	-	2	1	-	✓	PBOR	✓	-	
PIC18F26J13	R	28	23	PIC18	64 KB 32 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	-	10	3	✓	-	-	-	7	3	-	-	-	4	4	-	2	2	-	-	-	BOR	✓	-
PIC18F26J50	R	28	22	PIC18	64 KB 32 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	10	-	2	✓	-	-	-	-	2	-	-	-	2	3	-	2	2	-	✓	-	BOR	SW0	-
PIC18F26J53	R	28	22	PIC18	64 KB 32 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	-	10	3	✓	-	-	-	7	3	-	-	-	4	4	-	2	2	-	✓	-	BOR	✓	-
PIC18F27J13	R	28	23	PIC18	128 KB 64 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	-	10	3	✓	-	-	-	7	3	-	-	-	4	4	-	2	2	-	-	-	BOR	✓	-
PIC18F27J53	R	28	22	PIC18	128 KB 64 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	10	-	-	10	3	✓	-	-	-	7	3	-	-	-	4	4	-	2	2	-	✓	-	BOR	✓	-
PIC16F59	R	40	32	BL	3 KB 2 Kw	-	134	-	2V-5.5V	20 MHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
PIC16LF1904	R	40	36	EMR	7 KB 4 Kw	RW	256	-	1.8V-3.6V	20 MHz	16 MHz	116	14	-	14	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	
PIC16LF1907	R	40	36	EMR	14 KB 8 Kw	RW	512	-	1.8V-3.6V	20 MHz	16 MHz	116	14	-	14	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	
PIC16F1517	R	40	36	EMR	14 KB 8 Kw	RW	512	-	1.8V-5.5V	20 MHz	16 MHz	-	28	-	28	-	-	-	-	-	-	2	-	-	-	-	2	1	-	1	-	-	-	PBOR	SW	-	
PIC16F1519	R	40	36	EMR	28 KB 16 Kw	RW	1024	-	1.8V-5.5V	20 MHz	16 MHz	-	28	-	28	-	-	-	-	-	-	2	-	-	-	-	2	1	-	1	-	-	-	PBOR	SW	-	
PIC16F724	R	40	36	MR	7 KB 4 Kw	RW	192	-	1.8V-5.5V	20 MHz	16 MHz	-	16	14	-	-	-	-	-	-	-	2	-	-	-	-	2	1	1	-	-	-	BOR	SW0	-		
PIC16F1934	R	40	36	EMR	7 KB 4 Kw	RW	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	16	-	14	-	2	-	-	-	-	2	3	-	-	-	4	1	-	1	-	-	-	PBOR	SW0	✓	
PIC18F43K20	R	40	36	PIC18	8 KB 4 Kw	RW	512	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	-	14	-	14	-	2	-	-	-	-	-	1	1	-	-	-	1	3	-	1	1	-	-	BOR	✓	-

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.

\*Integrated Temperature Indicator – Reference Application Note AN1333 for implementation.

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## 8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins			Core	Memory			Voltage Range	Operating Speed		LCD Segments	Analog Sensing & Measurement										Digital							Communication					Monitors															
		Total	I/O	Core		Program	Self-Read/Write	Data RAM (B)		Data EE (B)	Maximum Speed		Internal Oscillator	intTouch™ Channels	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b)	PWM	CCP	ECCP	CMV/COG	INCO	PSMC	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	IC™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD	SR-Latch											
PIC16F727 <sup>TM</sup>	R	40	36	MR	14 KB 8 Kw	RW	368	-	1.8V-5.5V	20 MHz	16 MHz	-	16	14	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-							
PIC16F1784 <sup>TM</sup>	NR	40	36	EMR	7 KB 4 Kw	RW	512	256	1.8V-5.5V	32 MHz	32 MHz	-	-	-	-	14	4	-	3	0/1	-	3	-	-	-	3	-	2	1	-	1	1	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-							
PIC16F1937 <sup>TM</sup>	R	40	36	EMR	14 KB 8 Kw	RW	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	16	-	14	-	2	-	-	-	-	2	3	-	-	-	-	4	1	-	1	1	-	-	-	-	-	-	-	-	PBOR	SW <sup>o</sup>	✓							
PIC18F44K20 <sup>TM</sup>	R	40	36	PIC18	16 KB 8 Kw	RW	768	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	-	14	-	14	-	2	-	-	-	-	-	1	1	-	-	-	1	3	-	1	1	-	-	-	-	-	-	-	-	-	PBOR	✓	-						
PIC16F1787 <sup>TM</sup>	NR	40	36	EMR	14 KB 8 Kw	RW	1024	256	1.8V-5.5V	32 MHz	32 MHz	-	-	-	-	14	4	-	3	0/1	-	3	-	-	-	3	-	2	1	-	1	1	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-						
PIC16F1939 <sup>TM</sup>	R	40	36	EMR	28 KB 16 Kw	RW	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	16	-	14	-	2	-	-	-	-	-	2	3	-	-	-	4	1	-	1	1	-	-	-	-	-	-	-	-	-	PBOR	SW <sup>o</sup>	✓						
PIC18F45K20 <sup>TM</sup>	R	40	36	PIC18	32 KB 16 Kw	RW	1536	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	-	14	-	14	-	2	-	-	-	-	-	1	1	-	-	-	-	1	3	-	1	1	-	-	-	-	-	-	-	-	-	PBOR	✓	-					
PIC16F884	R	40	36	MR	7 KB 4 Kw	RW	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	14	-	14	-	2	-	-	-	-	-	1	1	-	-	-	2	1	-	1	1	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	✓					
PIC18F44J10	R	40	32	PIC18	16 KB 8 Kw	RW	1024	-	2V-3.6V	40 MHz	31 kHz	-	13	-	13	-	2	-	-	-	-	-	1	1	-	-	-	1	2	-	1	2	-	-	-	-	-	-	-	-	-	-	BOR	-	-					
PIC18F43K22 <sup>TM</sup>	R	40	36	PIC18	8 KB 4 Kw	RW	512	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	28	-	28	-	2	✓	-	-	-	-	1	1	-	-	-	-	1	3	-	2	2	-	-	-	-	-	-	-	-	-	-	PBOR	✓	✓				
PIC18F44K22 <sup>TM</sup>	R	40	36	PIC18	16 KB 8 Kw	RW	768	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	28	-	28	-	2	✓	-	-	-	-	1	1	-	-	-	-	1	3	-	2	2	-	-	-	-	-	-	-	-	-	-	PBOR	✓	✓				
PIC16F887	R	40	36	MR	14 KB 8 Kw	RW	368	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	-	14	-	14	-	2	-	-	-	-	-	1	1	-	-	-	-	2	1	-	1	1	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	✓				
PIC18F45J10	R	40	32	PIC18	32 KB 16 Kw	RW	1024	-	2V-3.6V	40 MHz	31 kHz	-	13	-	13	-	2	-	-	-	-	-	1	1	-	-	-	1	2	-	1	2	-	-	-	-	-	-	-	-	-	-	-	BOR	-	-				
PIC18F46K20 <sup>TM</sup>	R	40	36	PIC18	64 KB 32 Kw	RW	3936	1024	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	-	14	-	14	-	2	-	-	-	-	-	1	1	-	-	-	-	1	3	-	1	1	-	-	-	-	-	-	-	-	-	-	PBOR	✓	-				
PIC18F45K22 <sup>TM</sup>	R	40	36	PIC18	32 KB 16 Kw	RW	1536	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	28	-	28	-	2	✓	-	-	-	-	2	2	-	-	-	-	3	4	-	2	2	-	-	-	-	-	-	-	-	-	-	-	PBOR	✓	✓			
PIC18F44J11 <sup>TM</sup>	R	40	34	PIC18	16 KB 8 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	13	-	2	✓	-	-	-	-	-	2	-	-	-	-	2	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-			
PIC18F45J11 <sup>TM</sup>	R	40	34	PIC18	32 KB 16 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	13	-	2	✓	-	-	-	-	-	2	-	-	-	-	2	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-			
PIC18F44J50 <sup>TM</sup>	R	40	34	PIC18	16 KB 8 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	13	-	2	✓	-	-	-	-	-	2	-	-	-	-	2	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-			
PIC18F45K80 <sup>TM</sup>	R	40	35	PIC18	32 KB 16 Kw	RW	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	-	11	-	-	11	2	✓	-	-	-	-	4	1	-	-	-	-	2	3	-	2	1	-	-	-	-	-	-	-	-	-	-	-	PBOR	✓	✓			
PIC18F46K22 <sup>TM</sup>	R	40	36	PIC18	64 KB 32 Kw	RW	3896	1024	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	-	28	-	28	-	2	✓	-	-	-	-	2	2	-	-	-	-	3	4	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	PBOR	✓	✓		
PIC18F45J50 <sup>TM</sup>	R	40	34	PIC18	32 KB 16 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	13	-	2	✓	-	-	-	-	-	2	-	-	-	-	2	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-		
PIC18F46J11 <sup>TM</sup>	R	40	34	PIC18	64 KB 32 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	13	-	2	✓	-	-	-	-	-	2	-	-	-	-	2	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-		
PIC18F46K80 <sup>TM</sup>	R	44	35	PIC18	64 KB 32 Kw	RW	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	-	11	-	-	11	2	✓	-	-	-	-	4	1	-	-	-	-	2	3	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	PBOR	✓	-		
PIC18F46J13 <sup>TM</sup>	R	44	34	PIC18	64 KB 32 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	-	13	3	✓	-	-	-	-	7	3	-	-	-	-	4	4	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	BOR	✓	-		
PIC18F46J50 <sup>TM</sup>	R	40	34	PIC18	64 KB 32 Kw	RW	3800	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	13	-	2	✓	-	-	-	-	-	2	-	-	-	-	2	3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	BOR	SW <sup>o</sup>	-	
PIC18F46J53 <sup>TM</sup>	R	44	33	PIC18	64 KB 32 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	-	13	3	✓	-	-	-	-	7	3	-	-	-	-	4	4	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	BOR	✓	-	
PIC18F47J13 <sup>TM</sup>	R	44	34	PIC18	128 KB 64 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	-	13	3	✓	-	-	-	-	7	3	-	-	-	-	4	4	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	BOR	✓	-	
PIC18F47J53 <sup>TM</sup>	R	44	33	PIC18	128 KB 64 Kw	RW	3808	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	13	-	-	13	3	✓	-	-	-	-	7	3	-	-	-	-	4	4	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	BOR	✓	-

Products sorted by pin count followed by pricing.  
 †Pricing subject to change; please contact your Microchip representative for most current pricing.  
<sup>o</sup>Software PLVD implemented via ADC.  
 \*Integrated Temperature Indicator – Reference Application Note AN1333 for implementation.  
<sup>TM</sup> – eXtreme Low Power variants available.

## 8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins			Core	Memory			Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital						Communication					Monitors									
		Total	I/O	Core		Program	Self-Read/Write	Data RAM (B)		Data EE (B)	Maximum Speed			Internal Oscillator	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b)	PWM	CCP	ECCP	CW/CDOG	NCO	PSMC	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	IC™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD	SR-Latch		
PIC16F1526	R	64	54	EMR	14 KB 8 Kw	RW	768	-	1.8V-5.5V	20 MHz	16 MHz	-	30	-	30	-	-	-	-	-	-	-	-	10	-	-	-	-	-	6	3	-	2	2	-	-	-	-	PBOR	SW0	-
PIC16F1527	R	64	54	EMR	28 KB 16 Kw	RW	1536	-	1.8V-5.5V	20 MHz	16 MHz	-	30	-	30	-	-	-	-	-	-	-	-	10	-	-	-	-	-	6	3	-	2	2	-	-	-	-	PBOR	SW0	-
PIC16F1946	R	64	53	EMR	14 KB 8 Kw	RW	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	184	17	-	17	-	3	-	-	-	-	-	-	2	3	-	-	-	-	4	1	-	2	2	-	-	-	-	BOR	SW0	✓
PIC16F1947	R	64	53	EMR	28 KB 16 Kw	RW	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	184	17	-	17	-	3	-	-	-	-	-	-	2	3	-	-	-	-	4	1	-	2	2	-	-	-	-	BOR	SW0	✓
PIC18F63J11	R	64	54	PIC18	8 KB 4 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	PBOR	SW0	-
PIC18F65J10	R	64	50	PIC18	32 KB 16 Kw	RW	2048	-	2V-3.6V	40 MHz	31 kHz	-	11	-	11	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F64J11	R	64	54	PIC18	16 KB 8 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	BOR	SW0	-
PIC18F63J90	R	64	51	PIC18	8 KB 4 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	12	-	12	-	2	-	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	BOR	✓	-
PIC18F65J11	R	64	54	PIC18	32 KB 16 Kw	RW	2048	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	BOR	SW0	-
PIC18F65K22	R	64	53	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	-	16	-	-	16	3	✓	-	-	-	-	-	5	3	-	-	-	4	4	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F64J90	R	64	51	PIC18	16 KB 8 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	12	-	12	-	2	-	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	BOR	✓	-
PIC18F66J10	R	64	50	PIC18	64 KB 32 Kw	RW	2048	-	2V-3.6V	40 MHz	31 kHz	-	11	-	11	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F65J90	R	64	50	PIC18	32 KB 16 Kw	RW	2048	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	12	-	12	-	2	-	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	BOR	✓	-
PIC18F65K90	R	64	53	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	16	-	-	16	3	✓	-	-	-	-	-	5	3	-	-	-	4	4	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F65J50	R	64	49	PIC18	32 KB 16 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	8	-	8	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	✓	-	-	BOR	✓	-	
PIC18F66J11	R	64	50	PIC18	64 KB 32 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	11	-	11	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F66J93	R	64	51	PIC18	64 KB 32 Kw	RW	3900	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	132	12	-	-	12	2	✓	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	BOR	✓	-
PIC18F65K80	R	64	54	PIC18	32 KB 16 Kw	RW	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	-	11	-	-	11	2	✓	-	-	-	-	-	4	1	-	-	-	2	3	-	2	1	-	-	✓	-	PBOR	✓	-	
PIC18F66K22	R	64	53	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	-	16	-	-	16	3	✓	-	-	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F67J10	R	64	50	PIC18	128 KB 64 Kw	RW	3936	-	2V-3.6V	40 MHz	31 kHz	-	11	-	11	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F66K90	R	64	53	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	16	-	-	16	3	✓	-	-	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F66J50	R	64	49	PIC18	64 KB 32 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	8	-	8	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	✓	-	-	BOR	✓	-	
PIC18F67J11	R	64	50	PIC18	128 KB 64 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	11	-	11	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F67K22	R	64	53	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	-	16	-	-	16	3	✓	-	-	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F66K80	R	64	54	PIC18	64 KB 32 Kw	RW	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	-	11	-	-	11	2	✓	-	-	-	-	-	4	1	-	-	-	2	3	-	2	1	-	-	✓	-	PBOR	✓	-	
PIC18F67J93	R	64	51	PIC18	128 KB 64 Kw	RW	3900	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	132	12	-	-	12	2	✓	-	-	-	-	-	2	-	-	-	-	1	3	1	1	1	1	-	-	-	-	BOR	✓	-
PIC18F67K90	R	64	53	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	16	-	-	16	3	✓	-	-	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	-	BOR	✓	-	
PIC18F67J50	R	64	49	PIC18	128 KB 64 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	8	-	8	-	2	-	-	-	-	-	-	2	3	-	-	-	2	3	-	2	2	-	✓	-	-	BOR	✓	-	

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.

\*Integrated Temperature Indicator – Reference Application Note AN1333 for implementation.

XL - eXtreme Low Power variants available.



## 8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins			Core	Memory			Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital							Communication					Monitors				
		Total	I/O	Core		Program	Self-Read/Write	Data RAM (B)		Data EE (B)	Maximum Speed			Internal Oscillator	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b)	PWM	CCP	ECCP	CW/C/COG	NGO	PSMC	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	IC™/SPI	Enhanced (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR
PIC18F83J11	R	80	70	PIC18	8 KB 4 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	-	-	-	-	1	3	1	1	1	-	-	-	BOR	SW <sup>0</sup>	-	
PIC18F85J10	R	80	66	PIC18	32 KB 16 Kw	RW	2048	-	2V-3.6V	40 MHz	31 kHz	-	15	-	15	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	BOR	✓	-	
PIC18F84J11	R	80	70	PIC18	16 KB 8 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	SW <sup>0</sup>	-		
PIC18F83J90	R	80	66	PIC18	8 KB 4 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	192	12	-	12	-	2	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	✓	-		
PIC18F85J11	R	80	70	PIC18	32 KB 16 Kw	RW	2048	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	SW <sup>0</sup>	-		
PIC18F85K22 <sup>TP</sup>	R	80	69	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	24	-	-	24	3	✓	-	-	-	5	3	-	-	-	4	4	-	2	2	-	-	-	BOR	✓	-	
PIC18F84J90	R	80	66	PIC18	16 KB 8 Kw	RW	1024	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	192	12	-	12	-	2	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	✓	-		
PIC18F86J10	R	80	66	PIC18	64 KB 32 Kw	RW	2048	-	2V-3.6V	40 MHz	31 kHz	-	15	-	15	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	BOR	✓	-	
PIC18F85J90	R	80	66	PIC18	32 KB 16 Kw	RW	2048	-	2V-3.6V	40 MHz	8 MHz, 31 kHz	192	12	-	12	-	2	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	✓	-		
PIC18F85K90 <sup>TP</sup>	R	80	69	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	24	-	24	3	✓	-	-	-	5	3	-	-	-	4	4	-	2	2	-	-	-	BOR	✓	-	
PIC18F85J50	R	80	65	PIC18	32 KB 16 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	✓	-	BOR	✓	-	
PIC18F86J11	R	80	66	PIC18	64 KB 32 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	15	-	15	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	BOR	✓	-	
PIC18F86J93	R	80	67	PIC18	64 KB 32 Kw	RW	3900	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	192	12	-	12	2	✓	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	✓	-		
PIC18F86K22 <sup>TP</sup>	R	80	69	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	24	-	-	24	3	✓	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	BOR	✓	-	
PIC18F87J10	R	80	66	PIC18	128 KB 64 Kw	RW	3936	-	2V-3.6V	40 MHz	31 kHz	-	15	-	15	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	BOR	✓	-	
PIC18F86K90 <sup>TP</sup>	R	80	69	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	24	-	24	3	✓	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	BOR	✓	-	
PIC18F86J50	R	80	65	PIC18	64 KB 32 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	✓	-	BOR	✓	-	
PIC18F87J11	R	80	66	PIC18	128 KB 64 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	15	-	15	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	-	-	BOR	✓	-	
PIC18F87K22 <sup>TP</sup>	R	80	69	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	24	-	-	24	3	✓	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	BOR	✓	-	
PIC18F87J93	R	80	67	PIC18	128 KB 64 Kw	RW	3900	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	192	12	-	12	2	✓	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	✓	-		
PIC18F87K90 <sup>TP</sup>	R	80	69	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	24	-	24	3	✓	-	-	-	7	3	-	-	-	6	5	-	2	2	-	-	-	BOR	✓	-	
PIC18F87J50	R	80	65	PIC18	128 KB 64 Kw	RW	3904	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	-	12	-	12	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	-	✓	-	BOR	✓	-	
PIC18F86J60	R	80	55	PIC18	64 KB 32 Kw	RW	3808	-	2V-3.6V	42 MHz	31 kHz	-	15	-	15	-	2	-	-	-	2	3	-	-	-	2	3	-	2	1	1	-	-	-	BOR	✓	-
PIC18F87J60	R	80	55	PIC18	128 KB 64 Kw	RW	3808	-	2V-3.6V	42 MHz	32 kHz, 31 kHz	-	15	-	15	-	2	-	-	-	2	3	-	-	-	2	3	-	2	1	1	-	-	-	BOR	✓	-
PIC18F86J72	R	80	51	PIC18	64 KB 32 Kw	RW	3923	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	132	12	-	12	2	✓	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	✓	-		
PIC18F87J72	R	80	51	PIC18	128 KB 64 Kw	RW	3923	-	2V-3.6V	48 MHz	8 MHz, 31 kHz	132	12	-	12	2	✓	-	-	-	2	-	-	-	1	3	1	1	1	-	-	-	BOR	✓	-		
PIC18F96J60	R	100	70	PIC18	64 KB 32 Kw	RW	3808	-	2V-3.6V	42 MHz	31 kHz	-	16	-	16	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	1	-	-	-	BOR	✓	-
PIC18F97J60	R	100	70	PIC18	128 KB 64 Kw	RW	3808	-	2V-3.6V	42 MHz	31 kHz	-	16	-	16	-	2	-	-	-	2	3	-	-	-	2	3	-	2	2	1	-	-	-	BOR	✓	-

Products sorted by pin count followed by pricing.

<sup>T</sup>Pricing subject to change; please contact your Microchip representative for most current pricing.

<sup>0</sup>Software PLVD implemented via ADC.

<sup>TP</sup>Integrated Temperature Indicator – Reference Application Note AN1333 for implementation.

<sup>TP</sup> – eXtreme Low Power variants available.

## 16-bit PIC® Microcontrollers (PIC24F)

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement				LCD Segments	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer <sup>2</sup>	Communication				5-ku Pricing <sup>†</sup>	System Features		
				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						Digital Communication	USB 2.0 (Peripheral, Host, OTG)	PMP	RTCC/CRC			PPS	
14-Pin	PIC24F04KL100	R	12	PIC24	4	512	AN1095 <sup>1</sup>	-	1.8V-3.6V	16	8MHz, 32kHz	-	-	-	1	-	-	2	2	2	1 UART, 1 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.06	BOR, HLVD, WDT, XLP
	PIC24F04KA200	R	12	PIC24	4	512	AN1095 <sup>1</sup>	-	1.8V-3.6V	16	8 MHz, 32 kHz	✓	7	-	2	-	-	1	1	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	\$1.16	BOR, HLVD, WDT, XLP, Deep Sleep
20-Pin	PIC24F08KL200	R	12	PIC24	8	512	AN1095 <sup>1</sup>	-	1.8V-3.6V	16	8MHz, 32kHz	-	7	-	1	-	-	2	2	2	1 UART, 1 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.25	BOR, HLVD, WDT, XLP
	PIC24F04KL101	R	17	PIC24	4	512	AN1095 <sup>1</sup>	-	1.8V-3.6V	16	8MHz, 32kHz	-	-	-	1	-	-	2	2	2	1 UART, 1 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.15	BOR, HLVD, WDT, XLP
	PIC24F04KA201	R	18	PIC24	4	512	AN1095 <sup>1</sup>	-	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	-	2	-	-	1	1	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	\$1.25	BOR, HLVD, WDT, XLP, Deep Sleep
	PIC24F08KL201	R	17	PIC24	8	512	AN1095 <sup>1</sup>	-	1.8V-3.6V	16	8MHz, 32kHz	-	12	-	1	-	-	2	2	2	1 UART, 1 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.30	BOR, HLVD, WDT, XLP
	PIC24F08KL301	R	18	PIC24	8	1024	256	-	1.8V-3.6V	16	8MHz, 32kHz	-	-	-	2	-	-	6	3	2	2 UART, 2 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.27	BOR, HLVD, WDT, XLP
	PIC24F08KL401	R	18	PIC24	8	1024	512	-	1.8V-3.6V	16	8MHz, 32kHz	-	12	-	2	-	-	6	3	2	2 UART, 2 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.36	BOR, HLVD, WDT, XLP
	PIC24F16KL401	R	18	PIC24	16	1024	512	-	1.8V-3.6V	16	8MHz, 32kHz	-	12	-	2	-	-	6	3	2	2 UART, 2 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.43	BOR, HLVD, WDT, XLP
	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 I <sup>2</sup> C	-	-	✓	-	\$1.44	BOR, HLVD, WDT, XLP, Deep Sleep
	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 I <sup>2</sup> C	-	-	✓	-	\$1.51	BOR, HLVD, WDT, XLP, Deep Sleep
	PIC24FJ16MC101	R	15	PIC24	16	1024	AN1095 <sup>1</sup>	-	3V-3.6V	16	7.37 MHz, 32 kHz	✓	4	-	3	-	-	8	3	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	\$1.57	BOR, HLVD, WDT, XLP
26-Pin	PIC24F16KA301	R	18	PIC24	16	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	9	3	-	-	3	3	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	✓	-	\$1.86	BOR, HLVD, WDT, XLP, OST, WDT
	PIC24F32KA301	R	18	PIC24	32	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	9	3	-	-	3	3	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	✓	-	\$2.00	BOR, HLVD, WDT, XLP, OST, WDT
	PIC24F08KL302	R	24	PIC24	8	1024	256	-	1.8V-3.6V	16	8MHz, 32kHz	-	-	-	2	-	-	6	3	2	2 UART, 2 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.32	BOR, HLVD, WDT, XLP
	PIC24F08KL402	R	24	PIC24	8	1024	512	-	1.8V-3.6V	16	8MHz, 32kHz	-	12	-	2	-	-	6	3	2	2 UART, 2 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.40	BOR, HLVD, WDT, XLP
	PIC24F16KL402	R	24	PIC24	16	1024	512	-	1.8V-3.6V	16	8MHz, 32kHz	-	12	-	2	-	-	6	3	2	2 UART, 2 SPI/I <sup>2</sup> C (MSSP)	-	-	-	-	\$1.47	BOR, HLVD, WDT, XLP
	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 I <sup>2</sup> C	-	-	✓	-	\$1.51	BOR, HLVD, WDT, XLP, Deep Sleep
	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 I <sup>2</sup> C	-	-	✓	-	\$1.58	BOR, HLVD, WDT, XLP, Deep Sleep
	PIC24FJ16MC102	R	21	PIC24	16	1024	AN1095 <sup>1</sup>	-	3V-3.6V	16	7.37 MHz, 32 kHz	✓	6	-	3	-	-	8	3	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	\$1.68	BOR, HLVD, WDT, XLP
	PIC24FJ16GA002	R	21	PIC24	16	4096	AN1095 <sup>1</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	10	-	2	-	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$1.74	BOR, HLVD, WDT, XLP
	PIC24FJ32GA002	R	21	PIC24	32	8192	AN1095 <sup>1</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	10	-	2	-	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$2.06	BOR, HLVD, WDT, XLP
	PIC24F16KA302	R	24	PIC24	16	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	10	3	-	-	3	3	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	✓	-	\$2.06	BOR, HLVD, WDT, XLP, OST, WDT
	PIC24F32KA302	R	24	PIC24	32	2048	512	-	1.8V-5.5V	16	8 MHz, 32 kHz	✓	-	10	3	-	-	3	3	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	-	✓	-	\$2.20	BOR, HLVD, WDT, XLP, OST, WDT
	PIC24FJ32GA102	R	21	PIC24	32	8192	AN1095 <sup>1</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	10	-	3	-	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$2.23	BOR, HLVD, WDT, XLP, Deep Sleep
	PIC24FJ32GB002	R	19	PIC24	32	8192	AN1095 <sup>1</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	9	-	3	-	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	✓	✓	✓	✓	\$2.44	BOR, HLVD, WDT, XLP, Deep Sleep
PIC24FJ64GA002	R	21	PIC24	64	8192	AN1095 <sup>1</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	-	10	-	2	-	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$2.48	BOR, HLVD, WDT, XLP	
PIC24FJ64GA102	R	21	PIC24	64	8192	AN1095 <sup>1</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	10	-	3	-	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$2.65	BOR, HLVD, WDT, XLP, Deep Sleep	
PIC24FJ64GB002	R	19	PIC24	64	8192	AN1095 <sup>1</sup>	-	2V-3.6V	16	8 MHz, 32 kHz	✓	9	-	3	-	-	5	5	5	2 UART, 2 SPI, 2 I <sup>2</sup> C	✓	✓	✓	✓	\$2.86	BOR, HLVD, WDT, XLP, Deep Sleep	

<sup>1</sup>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.

<sup>†</sup>Pricing subject to change; please contact your Microchip representative for most current pricing.

## 16-bit PIC® Microcontrollers (PIC24F)

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement				LCD Segments	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer <sup>2</sup>	Communication			5-ku Pricing <sup>†</sup>	S		
				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						Digital Communication	USB 2.0 (Peripheral, Host, OTG)	PMP			RTCCRC	PPS
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, XLP, D	
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, XLP, D	
PIC24F16KA304	R	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, OST, V, BOR, XLP, D	
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, XLP, D	
PIC24F32KA304	R	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, OST, V, BOR, XLP, D	
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, XLP, D	
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, XLP, D	
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	-	✓	✓	✓	\$2.86	BOR, XLP, D	
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, XLP, D	
PIC24FJ64GA306	R	53	PIC24	64	8192	AN1095 <sup>(1)</sup>	6	2V-3.6V	16	8 MHz, 32 kHz	✓	-	16	3	240	-	7	7	5	4 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$2.77	BOR, XLP, D
PIC24FJ128GA306	R	53	PIC24	128	8192	AN1095 <sup>(1)</sup>	6	2V-3.6V	16	8 MHz, 32 kHz	✓	-	16	3	240	-	7	7	5	4 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$3.00	BOR, XLP, D
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, XLP, D	
PIC24FJ64GA106	R	53	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	-	✓	✓	✓	\$3.32	BOR, XLP, D	
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, XLP, D	
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, XLP, D	
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, XLP, D	
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, XLP, D	
PIC24FJ256GA106	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, XLP, D	
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, XLP, D	
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, XLP, D
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, XLP, D	
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, XLP, D	
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, XLP, D
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, XLP, D
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, XLP, D
PIC24FJ64GA308	R	69	PIC24	64	8192	AN1095 <sup>(1)</sup>	6	2V-3.6V	16	8 MHz, 32 kHz	✓	-	16	3	368	-	7	7	5	4 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$2.98	BOR, XLP, D
PIC24FJ128GA308	R	69	PIC24	128	8192	AN1095 <sup>(1)</sup>	6	2V-3.6V	16	8 MHz, 32 kHz	✓	-	16	3	368	-	7	7	5	4 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$3.23	BOR, XLP, D
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, XLP, D	
PIC24FJ64GA108	R	69	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	-	✓	✓	✓	\$3.58	BOR, XLP, D	
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, XLP, D	
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, XLP, D	
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, XLP, D	

<sup>2</sup>Parts available with High Temperature options (150°C).



<sup>†</sup>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.

<sup>†</sup>Pricing subject to change; please contact your Microchip representative for most current pricing.

## 16-bit PIC® Microcontrollers (PIC24F)

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement				LCD Segments	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer <sup>2</sup>	Communication				5-ku Pricing <sup>1</sup>	Sym		
				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						Digital Communication	USB 2.0 (Peripheral, Host, DTG)	PMP	RTCC/GRC			PPS	
80-Pin (Cont.)	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, LV
	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, LV
	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, LV
100-Pin	PIC24FJ64GA310 	R	85	PIC24	64	8192	AN1095 <sup>(1)</sup>	6	2V-3.6V	16	8 MHz, 32 kHz	✓	-	24	3	480	-	7	7	5	4 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$3.16	BOR, LV Deep Sleep
	PIC24FJ128GA310 	R	85	PIC24	128	8192	AN1095 <sup>(1)</sup>	6	2V-3.6V	16	8 MHz, 32 kHz	✓	-	24	3	480	-	7	7	5	4 UART, 2 SPI, 2 I <sup>2</sup> C	-	✓	✓	✓	\$3.42	BOR, LV Deep Sleep
	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 I <sup>2</sup> C	-	✓	✓	-	\$3.51	BOR, PV
	PIC24FJ64GA110	R	85	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	-	✓	✓	✓	\$3.79	BOR, LV
	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 I <sup>2</sup> C	-	✓	✓	-	\$3.81	BOR, PV
	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 I <sup>2</sup> C	-	✓	✓	✓	\$4.03	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$4.12	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$4.41	BOR, LV
	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 I <sup>2</sup> C	-	✓	✓	✓	\$4.45	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$4.79	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$4.83	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$4.83	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$5.14	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$5.18	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$5.25	BOR, LV
	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 I <sup>2</sup> C	✓	✓	✓	✓	\$5.60	BOR, LV

\*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.

## 16-bit PIC® Microcontrollers (PIC24H/E)

Product	Released (R) Not Released (NR)	IO Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Communication					5-ku Pricing†	System Features							
				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	Op Amps	Output Compare/PWM	Motor Control PWM Ch.	OEI	Input Capture	16-bit Timer <sup>(2)</sup>			Digital Communication	CAN	FS USB/OTG	PMP	RTCC/CRIC	PPS	
18-Pin	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, ...
28-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, ...
	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, ...
	PIC24EP64GP202	R	21	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	6 ch	1+2 <sup>†</sup>	2	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.45	PBOR, ...
	PIC24EP64MC202	R	21	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	6 ch	1+2 <sup>†</sup>	2	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.45	PBOR, ...
	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, ...
	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, ...
	PIC24EP256GP202	NR	21	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	6 ch	1+2 <sup>†</sup>	2	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.14	PBOR, ...
	PIC24EP256MC202	NR	21	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	6 ch	1+2 <sup>†</sup>	2	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.14	PBOR, ...
	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, ...
	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, ...
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, ...	
36-Pin	PIC24EP64GP203	NR	25	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	8 ch	1+3 <sup>†</sup>	3	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.52	PBOR, ...
	PIC24EP64MC203	NR	25	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	8 ch	1+3 <sup>†</sup>	3	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.52	PBOR, ...
	PIC24EP256GP203	NR	25	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	8 ch	1+3 <sup>†</sup>	3	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.21	PBOR, ...
	PIC24EP256MC203	NR	25	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	8 ch	1+3 <sup>†</sup>	3	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.21	PBOR, ...
44-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, ...
	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, ...
	PIC24EP64GP204	R	35	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	9 ch	1+3 <sup>†</sup>	3	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.59	PBOR, ...
	PIC24EP64MC204	R	35	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	9 ch	1+3 <sup>†</sup>	3	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.59	PBOR, ...
	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, ...
	PIC24EP256GP204	NR	35	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	9 ch	1+3 <sup>†</sup>	3	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.28	PBOR, ...
	PIC24EP256MC204	NR	35	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	9 ch	1+3 <sup>†</sup>	3	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.28	PBOR, ...
	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, ...
	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, ...
	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, ...
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, ...	
64-Pin	PIC24EP64GP206	R	53	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	16 ch	1+3 <sup>†</sup>	3	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.73	PBOR, ...
	PIC24EP64MC206	R	53	PIC24	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	16 ch	1+3 <sup>†</sup>	3	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.73	PBOR, ...
	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, ...
	PIC24EP256GP206	NR	53	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	16 ch	1+3 <sup>†</sup>	3	4	-	-	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.42	PBOR, ...
	PIC24EP256MC206	NR	53	PIC24	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	-	16 ch	1+3 <sup>†</sup>	3	4	6	1	4	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$3.42	PBOR, ...

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

<sup>†</sup>Op amp configured as comparator.

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.

## 16-bit PIC® Microcontrollers (PIC24H/E)

Product	Released (R) Not Released (NR)	IO Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Output Compare/PWM	Motor Control PWM Ch.	QEI	Input Capture	16-bit Timer <sup>(2)</sup>	Communication					5-ku Pricing <sup>†</sup>	System Feat.		
				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	Op-Amps						Digital Communication	CAN	FS USB OTG	PMP	RTCC/CRC			PPS	
64-Pin (Cont.)	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, PO
	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, PO
	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, PO
	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, PO
	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, PO
	PIC24EP512GP806	NR	53	PIC24	536	53248	AN1095	15	3V-3.6V	70	7.37 MHz, 32 KHz	-	-	24 ch, 2-AD	3	-	16	-	-	16	9	4 UART, 2 SPI, 2 I <sup>2</sup> C	2	-	✓	✓	✓	\$5.60	PBOR, PO
100-Pin	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, PO
	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, PO
	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, PO
	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, PO
	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, PO
	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, PO
	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, PO
	PIC24EP256GU810	R	83	PIC24	280	28672	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 KHz	-	-	2 ADC 32 ch	3	-	16	-	-	16	9	4 UART, 4 SPI, 2 I <sup>2</sup> C	2	1	✓	✓	✓	\$5.70	BOR, PO
	PIC24EP512GU810	R	83	PIC24	536	53248	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 KHz	-	-	2 ADC 32 ch	3	-	16	-	-	16	9	4 UART, 4 SPI, 2 I <sup>2</sup> C	2	1	✓	✓	✓	\$6.37	BOR, PO
144-Pin	PIC24EP256GU814	R	122	PIC24	280	28672	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 KHz	-	-	2 ADC 32 ch	3	-	16	-	-	16	9	4 UART, 4 SPI, 2 I <sup>2</sup> C	2	1	✓	✓	✓	\$6.31	BOR, PO
	PIC24EP512GU814	R	122	PIC24	536	53248	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 KHz	-	-	2 ADC 32 ch	3	-	16	-	-	16	9	4 UART, 4 SPI, 2 I <sup>2</sup> C	2	1	✓	✓	✓	\$6.99	BOR, PO

\*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.

## 32-bit PIC32 Microcontrollers

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory			DMA Channels General/Dedicated	Voltage Range	Operating Speed			Analog		IC/OC/PWM	Timers 16/32-bit	Communication						PMP	RTCC	Peripheral Pin Select (PPS)	5 Ku Pricing <sup>†</sup>	System Fea	
				Flash KB + Boot Flash	Data RAM (KB)	EEPROM			Maximum Speed (MHz)	Internal Oscillator	Charge Time Measurement Unit	ADC 10-bit 1000 ksps	Comparators			SPI/FS	I <sup>2</sup> C™	UARTs	FS USB	Ethernet	CAN						
28-Pin	PIC32MX110F016B	R	21	PIC32	16+3	4	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$1.65	POR, BOR,
	PIC32MX210F016B	R	21	PIC32	16+3	4	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	Device	-	-	✓	✓	✓	\$1.76	POR, BOR,
	PIC32MX120F032B	R	21	PIC32	32+3	8	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$1.85	POR, BOR,
	PIC32MX220F032B	R	21	PIC32	32+3	8	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	Device	-	-	✓	✓	✓	\$1.95	POR, BOR,
	PIC32MX130F064B	NR	21	PIC32	64+3	16	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.24	POR, BOR,
	PIC32MX150F128B	NR	21	PIC32	128+3	32	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.52	POR, BOR,
	PIC32MX230F064B	NR	21	PIC32	64+3	16	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	OTG	-	-	✓	✓	✓	\$2.52	POR, BOR,
36-Pin	PIC32MX250F128B	NR	21	PIC32	128+3	32	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	OTG	-	-	✓	✓	✓	\$2.83	POR, BOR,
	PIC32MX110F016C	NR	25	PIC32	16+3	4	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$1.82	POR, BOR,
	PIC32MX210F016C	NR	25	PIC32	16+3	4	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	Device	-	-	✓	✓	✓	\$1.93	POR, BOR,
	PIC32MX120F032C	NR	25	PIC32	32+3	8	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.02	POR, BOR,
	PIC32MX220F032C	NR	25	PIC32	32+3	8	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	Device	-	-	✓	✓	✓	\$2.13	POR, BOR,
	PIC32MX130F064C	NR	25	PIC32	64+3	16	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.52	POR, BOR,
	PIC32MX150F128C	NR	25	PIC32	128+3	32	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.69	POR, BOR,
44-Pin	PIC32MX230F064C	NR	25	PIC32	64+3	16	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	OTG	-	-	✓	✓	✓	\$2.69	POR, BOR,
	PIC32MX250F128C	NR	25	PIC32	128+3	32	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	OTG	-	-	✓	✓	✓	\$2.97	POR, BOR,
	PIC32MX110F016D	R	34	PIC32	16+3	4	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$1.89	POR, BOR,
	PIC32MX210F016D	R	34	PIC32	16+3	4	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	Device	-	-	✓	✓	✓	\$2.00	POR, BOR,
	PIC32MX120F032D	R	34	PIC32	32+3	8	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.09	POR, BOR,
	PIC32MX220F032D	R	34	PIC32	32+3	8	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	Device	-	-	✓	✓	✓	\$2.19	POR, BOR,
	PIC32MX130F064D	NR	34	PIC32	64+3	16	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.45	POR, BOR,
64-Pin	PIC32MX150F128D	NR	34	PIC32	128+3	32	AN1095	4/0	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	-	-	-	✓	✓	✓	\$2.73	POR, BOR,
	PIC32MX230F064D	NR	34	PIC32	64+3	16	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	OTG	-	-	✓	✓	✓	\$2.73	POR, BOR,
	PIC32MX250F128D	NR	34	PIC32	128+3	32	AN1095	4/2	2.3V-3.6V	40	8 MHz, 32 KHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	OTG	-	-	✓	✓	✓	\$3.01	POR, BOR,
	PIC32MX320F032H	R	51	PIC32	32+12	8	AN1095 <sup>(1)</sup>	0/0	2.3V-3.6V	40	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	\$3.09	POR, BOR,
	PIC32MX320F064H	R	51	PIC32	64+12	16	AN1095 <sup>(1)</sup>	0/0	2.3V-3.6V	40	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	\$3.36	POR, BOR,
	PIC32MX420F032H	R	51	PIC32	32+12	8	AN1095 <sup>(1)</sup>	0/2	2.3V-3.6V	40	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	OTG	-	-	✓	✓	-	\$3.36	POR, BOR,
	PIC32MX320F064H	R	51	PIC32	64+12	16	AN1095 <sup>(1)</sup>	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	\$3.51	POR, BOR,
	PIC32MX320F128H	R	51	PIC32	128+12	16	AN1095 <sup>(1)</sup>	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	\$3.75	POR, BOR,
	PIC32MX534F064H	R	51	PIC32	64+12	16	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	-	1	✓	✓	-	\$3.89	POR, BOR,
	PIC32MX340F128H	R	51	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	\$3.96	POR, BOR,
64-Pin	PIC32MX564F064H	R	51	PIC32	64+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	-	1	✓	✓	-	\$4.10	POR, BOR,
	PIC32MX440F128H	R	51	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	OTG	-	-	✓	✓	-	\$4.23	POR, BOR,
	PIC32MX340F256H	R	51	PIC32	256+12	32	AN1095 <sup>(1)</sup>	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	\$4.31	POR, BOR,
	PIC32MX564F128H	R	51	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	-	1	✓	✓	-	\$4.34	POR, BOR,
	PIC32MX664F064H	R	51	PIC32	64+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	-	✓	✓	-	\$4.34	POR, BOR,

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

Products sorted by pin count followed by pricing.

<sup>†</sup>Pricing subject to change; please contact your Microchip representative for most current pricing.

## 32-bit PIC32 Microcontrollers

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory			DMA Channels General/Dedicated	Voltage Range	Operating Speed		Charge Time Measurement Unit	Analog		IC/OC/PWM	Timers 16/32-bit	Communication						PMP	RTCC	Peripheral Pin Select (PPS)		
				Flash KB + Boot Flash	Data RAM (KB)	EEPROM			Maximum Speed (MHz)	Internal Oscillator		ADC 10-bit 1000 ksps	Comparators			SPI/FS	I <sup>2</sup> C <sup>SM</sup>	UARTs	FS USB	Ethernet	CAN					
64-Pin (Cont.)	PIC32MX440F256H	R	51	PIC32	256+12	32	AN1095 <sup>(1)</sup>	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	OTG	-	-	✓	✓	-	9
	PIC32MX664F128H	R	51	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX764F128H	R	51	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/6	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	1	✓	✓	-	9
	PIC32MX340F512H	R	51	PIC32	512+12	32	AN1095 <sup>(1)</sup>	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	9
	PIC32MX575F256H	R	51	PIC32	256+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	-	1	✓	✓	-	9
	PIC32MX440F512H	R	51	PIC32	512+12	32	AN1095 <sup>(1)</sup>	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	OTG	-	-	✓	✓	-	9
	PIC32MX675F256H	R	51	PIC32	256+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX575F512H	R	51	PIC32	512+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	-	1	✓	✓	-	9
	PIC32MX775F256H	R	51	PIC32	256+12	64	AN1095 <sup>(1)</sup>	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	2	✓	✓	-	9
	PIC32MX675F512H	R	51	PIC32	512+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX775F512H	R	51	PIC32	512+12	64	AN1095 <sup>(1)</sup>	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	2	✓	✓	-	9
	PIC32MX695F512H	R	51	PIC32	512+12	128	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX795F512H	R	51	PIC32	512+12	128	AN1095 <sup>(1)</sup>	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	2	✓	✓	-	9
100-Pin	PIC32MX534F064L	R	85	PIC32	64+12	16	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	-	1	✓	✓	-	9
	PIC32MX320F128L	R	85	PIC32	128+12	16	AN1095 <sup>(1)</sup>	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	9
	PIC32MX340F128L	R	85	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	9
	PIC32MX564F064L	R	85	PIC32	64+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	-	1	✓	✓	-	9
	PIC32MX440F128L	R	85	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	OTG	-	-	✓	✓	-	9
	PIC32MX360F256L	R	85	PIC32	256+12	32	AN1095 <sup>(1)</sup>	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	9
	PIC32MX564F128L	R	85	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	-	1	✓	✓	-	9
	PIC32MX664F064L	R	85	PIC32	64+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX460F256L	R	85	PIC32	256+12	32	AN1095 <sup>(1)</sup>	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	OTG	-	-	✓	✓	-	9
	PIC32MX664F128L	R	85	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX764F128L	R	85	PIC32	128+12	32	AN1095 <sup>(1)</sup>	4/6	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	1	✓	✓	-	9
	PIC32MX360F512L	R	85	PIC32	512+12	32	AN1095 <sup>(1)</sup>	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	-	-	-	✓	✓	-	9
	PIC32MX575F256L	R	85	PIC32	256+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	-	1	✓	✓	-	9
	PIC32MX460F512L	R	85	PIC32	512+12	32	AN1095 <sup>(1)</sup>	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	2/0	2	2	OTG	-	-	✓	✓	-	9
	PIC32MX675F256L	R	85	PIC32	256+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX575F512L	R	85	PIC32	512+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	-	1	✓	✓	-	9
	PIC32MX775F256L	R	85	PIC32	256+12	64	AN1095 <sup>(1)</sup>	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	2	✓	✓	-	9
	PIC32MX675F512L	R	85	PIC32	512+12	64	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	-	✓	✓	-	9
	PIC32MX775F512L	R	85	PIC32	512+12	64	AN1095 <sup>(1)</sup>	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	2	✓	✓	-	9
	PIC32MX695F512L	R	85	PIC32	512+12	128	AN1095 <sup>(1)</sup>	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	-	✓	✓	-	9
PIC32MX795F512L	R	85	PIC32	512+12	128	AN1095 <sup>(1)</sup>	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	-	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	2	✓	✓	-	9	

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.



## dsPIC30F DSC Families

Product	Released (R) Not Released (NR)	IO Pins	Core	Memory			Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Motor Control PWM Ch	Power Supply PWM Ch	OEI	Codes (FS, AC97)	16-bit Timer <sup>(1)</sup>	Communication		5 ku Pricing <sup>1</sup>	System F	
				Program KB	Data RAM (B)	EEPROM		Maximum Speed MIPS	Internal Oscillator	ADC	DAC	Comparators								Digital Communication	CAN			
18-Pin	dsPIC30F3012	R	12	dsPIC	24	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	8 x 10-bit @ 200 (ksps)	-	-	2	2	-	-	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	\$2.68	PBOR, LV	
28-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, LV
	dsPIC30F3013	R	20	dsPIC	24	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	10 x 10-bit @ 200 (ksps)	-	-	2	2	-	-	-	3	2 UART, 1 SPI, 1 I <sup>2</sup> C	-	\$2.77	PBOR, LV	
	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, LV
	dsPIC30F4013	R	30	dsPIC	48	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	13 x 10-bit @ 200 (ksps)	-	-	4	4	-	-	-	1	5	2 UART, 1 SPI, 1 I <sup>2</sup> C	1	\$3.91	PBOR, LV
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, LV
	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, LV
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, LV	
	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, LV
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, LV	
	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, LV

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

## dsPIC33 DSC General Purpose Family

Product	Released (R) Not Released (NR)	IO Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Output Compare/PWM	Input Capture	Codes (FS, AC97)	16-bit Timer <sup>(1)</sup>	Communication			5 ku Pricing <sup>1</sup>	System F				
				Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	Charge Time Measurement Unit	ADC 10/12-bit 1100/500 ksps	DAC	Comparators	Op Amps					Digital Communication	CAN	PMP			RTCC/CRC	PPS		
18-Pin	dsPIC33FJ16GP101	R	15	dsPIC*	16	1024	AN1095 <sup>(1)</sup>	-	3V-3.6V	16	7.37 MHz, 32 kHz	✓	4 Ch (10-bit)	-	3	-	2	3	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	\$1.57	BOR,	
	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 I <sup>2</sup> C	-	-	-	✓	\$2.09	PBOR	
28-Pin	dsPIC33FJ16GP102	R	21	dsPIC	16	1024	AN1095 <sup>(1)</sup>	-	3V-3.6V	16	7.37 MHz, 32 kHz	✓	6 Ch (10-bit)	-	3	-	2	3	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	\$1.68	BOR,	
	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 I <sup>2</sup> C	-	-	-	✓	\$2.24	PBOR	
	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 I <sup>2</sup> C	-	-	-	✓	\$2.56	PBOR	
	dsPIC33EP64GP502	R	21	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	-	-	1+2 <sup>†</sup>	2	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$2.66	PBOR
	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 I <sup>2</sup> C	-	-	-	✓	\$2.76	PBOR	
	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 I <sup>2</sup> C	-	✓	-	✓	\$3.12	PBOR	
	dsPIC33EP256GP502	NR	21	dsPIC	256	32768	AN1095	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	-	-	1+2 <sup>†</sup>	2	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$3.14	PBOR
	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 I <sup>2</sup> C	1	✓	✓	✓	\$3.42	PBOR	
	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 I <sup>2</sup> C	-	✓	✓	✓	\$3.44	PBOR	
	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 I <sup>2</sup> C	1	✓	✓	✓	\$3.72	PBOR	
36-Pin	dsPIC33EP64GP503	NR	25	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	-	1+3 <sup>†</sup>	3	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$2.73	PBOR	
	dsPIC33EP256GP503	NR	25	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	-	1+3 <sup>†</sup>	3	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$3.21	PBOR	

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

†Op amp configured as comparator.

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 General Purpose Family

Product	Released (R) Not Released (NR)	IO Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Output Compare/PWM	Input Capture	Codec (FS, AC97)	16-bit Timer <sup>(2)</sup>	Communication					5-ku Pricing <sup>†</sup>	
				Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	Charge Time Measurement Unit	ADC 10/12-bit 1100/500 ksps	DAC	Comparators	Op-Amps					Digital Communication	CAN	PMP	RTCC/CRC	PPS		
44-Pin	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 I <sup>2</sup> C	-	-	-	✓	\$2.58
	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 I <sup>2</sup> C	-	-	-	✓	\$2.66
	dsPIC33EP64GP504	R	35	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	-	1+3 <sup>‡</sup>	3	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$2.80
	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 I <sup>2</sup> C	-	-	-	✓	\$3.01
	dsPIC33EP256GP504	NR	35	dsPIC	256	32768	AN1095	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	-	1+3 <sup>‡</sup>	3	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$3.28
	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 I <sup>2</sup> C	-	✓	-	✓	\$3.29
	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 I <sup>2</sup> C	-	✓	✓	✓	\$3.58
	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 I <sup>2</sup> C	1	✓	✓	✓	\$3.65
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 I <sup>2</sup> C	1	✓	✓	✓	\$3.96	
64-Pin	dsPIC33EP64GP506	R	53	dsPIC	64	8192	AN1095	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	-	1+3 <sup>‡</sup>	3	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$2.94
	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 I <sup>2</sup> C	-	-	-	-	\$3.39
	dsPIC33EP256GP506	NR	53	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	-	1+3 <sup>‡</sup>	3	4	4	-	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	\$3.42
	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 I <sup>2</sup> C	-	-	-	-	\$3.53
	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 I <sup>2</sup> C	-	-	-	-	\$3.63
	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 I <sup>2</sup> C	-	-	-	-	\$3.79
	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 I <sup>2</sup> C	2	-	-	-	\$4.14
	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 I <sup>2</sup> C	1	-	-	-	\$4.20
	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 I <sup>2</sup> C	2	-	-	-	\$4.40
	dsPIC33EP512GP806	NR	53	dsPIC	536	53248	AN1095 <sup>(1)</sup>	15	3V-3.6V	70	7.37 MHz, 32 kHz	-	24 ch, 2 ADC	-	3	-	16	16	1	9	4 UART, 2 SPI, 2 I <sup>2</sup> C	2	✓	✓	✓	\$5.60
80-Pin	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 I <sup>2</sup> C	2	-	-	-	\$4.44
	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 I <sup>2</sup> C	2	-	-	-	\$4.69
100-Pin	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 I <sup>2</sup> C	-	-	-	-	\$3.99
	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 I <sup>2</sup> C	-	-	-	-	\$4.26
	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 I <sup>2</sup> C	2	-	-	-	\$4.61
	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 I <sup>2</sup> C	1	-	-	-	\$4.66
	dsPIC33FJ128GP710A*	R	85	dsPIC	128	16384	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	32 ch 2ADC	-	-	-	8	8	1	9	2 UART, 2 SPI, 2 I <sup>2</sup> C	2	-	-	-	\$4.86
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 I <sup>2</sup> C	2	-	-	-	\$5.32	

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

<sup>‡</sup>Op amp configured as comparator.

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

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

## dsPIC33 DSC Motor Control and Power Conversion Family

Product	Released (R) Not Released (NR)	IO Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Output Compare/PWM	Input Capture	Motor Control PWM Ch	OEI	16-bit Timer <sup>(2)</sup>	Communication				5-ku Pricing <sup>†</sup>	Supply				
				Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	Charge Time Measurement Unit	ADC 10/12-bit 1100/500 ksps	DAC	Comparators	Op Amps						Digital Communication	CAN	FS USB OTG	PMP			RTCC/CRC	PPS		
20-Pin	dsPIC33FJ16MC101	R	15	dsPIC*	16	1024	AN1095 <sup>(1)</sup>	-	3V-3.6V	16	7.37 MHz, 32 kHz	✓	4 ch (10-bit)	-	3	-	2	3	6	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$1.57	BO	
	dsPIC33FJ12MC201	R	15	dsPIC	12	1024	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	4 ch	-	-	-	2	4	4+2	1	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	✓	\$2.09	PB
28-Pin	dsPIC33FJ16MC102	R	21	dsPIC	16	1024	AN1095 <sup>(1)</sup>	-	3V-3.6V	16	7.37 MHz, 32 kHz	✓	6 ch (10-bit)	-	3	-	3	3	6	-	3	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	-	✓	✓	\$1.68	BO
	dsPIC33FJ12MC202	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	PB
	dsPIC33EP64MC202	R	21	dsPIC	64	8192	AN1095	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	-	1+2 <sup>†</sup>	2	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	\$2.45	PB	
	dsPIC33FJ32MC202*	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	PB
	dsPIC33EP64MC502	R	21	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	-	1+2 <sup>†</sup>	2	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	✓	✓	\$2.66	PB	
	dsPIC33FJ32MC302	R	21	dsPIC	32	4096	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	6 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	✓	-	✓	✓	\$2.87	PB
	dsPIC33EP256MC202	NR	21	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	-	1+2 <sup>†</sup>	2	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	✓	\$3.14	PB
	dsPIC33FJ64MC202	R	21	dsPIC	64	8192	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	6 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	✓	✓	\$3.29	PB
	dsPIC33EP256MC502	NR	21	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	-	1+2 <sup>†</sup>	2	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	✓	✓	✓	\$3.35	PB
	dsPIC33FJ64MC802*	R	21	dsPIC	64	16384	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	6 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	✓	✓	\$3.50	PB
	dsPIC33FJ128MC202	R	21	dsPIC	128	8192	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	6 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	✓	✓	\$3.57	PB
	dsPIC33FJ128MC802*	R	21	dsPIC	128	16384	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	6 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	✓	✓	\$3.82	PB
36-Pin	dsPIC33EP64MC203	NR	25	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	✓	\$2.52	PB
	dsPIC33EP64MC503	NR	25	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	✓	✓	✓	\$2.73	PB
	dsPIC33EP256MC203	NR	25	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	✓	\$3.21	PB
	dsPIC33EP256MC503	NR	25	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	✓	✓	✓	\$3.42	PB
44-Pin	dsPIC33EP64MC204	R	35	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	✓	\$2.59	PB
	dsPIC33FJ16MC304*	R	35	dsPIC	16	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	-	-	-	-	✓	✓	\$2.65	BO
	dsPIC33FJ32MC204*	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	PB
	dsPIC33EP64MC504	R	35	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	✓	✓	✓	\$2.80	PB
	dsPIC33FJ32MC304	R	35	dsPIC	32	4096	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	-	9 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	✓	-	✓	✓	\$3.12	PB
	dsPIC33EP256MC204	NR	35	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	✓	\$3.28	PB
	dsPIC33FJ64MC204	R	35	dsPIC	64	8192	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	9 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	✓	✓	\$3.39	PB
	dsPIC33EP256MC504	NR	35	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	✓	✓	✓	\$3.49	PB
	dsPIC33FJ128MC204	R	35	dsPIC	128	8192	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	9 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	✓	✓	✓	✓	\$3.68	PB
	dsPIC33FJ64MC804*	R	35	dsPIC	64	16384	AN1095 <sup>(1)</sup>	8	3V-3.6V	40	7.37 MHz, 32 kHz	-	9 ch	-	2	-	4	4	6+2	2	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	✓	✓	✓	✓	\$3.89	PB
64-Pin	dsPIC33EP64MC206	R	53	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	✓	\$2.73	PB
	dsPIC33EP64MC506	R	53	dsPIC	64	8192	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	1	-	-	✓	✓	✓	\$2.94	PB
	dsPIC33EP256MC206	NR	53	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 I <sup>2</sup> C	-	-	-	✓	✓	✓	\$3.42	PB

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

<sup>†</sup>Op amp configured as comparator.

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.

<sup>†</sup>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)	IO Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Output Compare/PWM	Input Capture	Motor Control PWM Ch	OEI	16-bit Timer <sup>2)</sup>	Communication						
				Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	Charge Time Measurement Unit	ADC 10/12-bit 1100/500 ksps	DAC	Comparators	Op-Amps						Digital Communication	CAN	FS USB OTG	PMP	RTCC/CRC	PPS	
64-Pin (Cont.)	dsPIC33EP256MC506	NR	53	dsPIC	256	32768	AN1095 <sup>(1)</sup>	4	3V-3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	-	1+3 <sup>†</sup>	3	4	4	6	1	5	2 UART, 2 SPI, 1 PC	1	-	-	✓	✓
	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 PC	1	-	-	-	-
	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 PC	1	-	-	-	-
	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 PC	1	-	-	-	-
	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 PC	1	-	-	-	-
	dsPIC33EP256MU806	R	53	dsPIC	280	28672	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 kHz	-	24 ch, 2-ADC	-	3	-	16	16	8	2	9	4 UART, 4 SPI, 2 PC	2	1	✓	✓	✓
80-Pin	dsPIC33EP512MC806	NR	53	dsPIC	536	53248	AN1095 <sup>(1)</sup>	15	3V-3.6V	70	7.37 MHz, 32 kHz	-	24 ch, 2-A/D	-	3	-	16	16	8	2	9	4 UART, 2 SPI, 2 PC	2	-	✓	✓	✓
	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 PC	1	-	-	-	-
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 PC	2	-	-	-	-
	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 PC	1	-	-	-	-
	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 PC	1	-	-	-	-
	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 PC	2	-	-	-	-
	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 PC	1	-	-	-	-
	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 PC	2	-	-	-	-
	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 PC	2	-	-	-	-
	dsPIC33EP256MU810	R	83	dsPIC	280	28672	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 A/D	-	3	-	16	16	12	2	9	4 UART, 4 SPI, 2 PC	2	1	✓	✓	✓
144-Pin	dsPIC33EP512MU810	R	83	dsPIC	536	53248	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 A/D	-	3	-	16	16	12	2	9	4 UART, 4 SPI, 2 PC	2	1	✓	✓	✓
	dsPIC33EP256MU814	R	122	dsPIC	280	28672	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 A/D	-	3	-	16	16	14	2	9	4 UART, 4 SPI, 2 PC	2	1	✓	✓	✓
	dsPIC33EP512MU814	R	122	dsPIC	536	53248	AN1095 <sup>(1)</sup>	15	3V-3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 A/D	-	3	-	16	16	14	2	9	4 UART, 4 SPI, 2 PC	2	1	✓	✓	✓

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

<sup>†</sup>Op amp configured as comparator.

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

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

## dsPIC33 DSC SMPS and Digital Power Conversion Family

Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Power Supply PWM Ch <sup>(1)</sup>	OEI	16-bit Timer <sup>(2)</sup>	Communication					5-ku Pricing <sup>†</sup>	
				Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	ADC 10-bit 2000/4000 ksps	DAC	Comparators						Digital Communication	CAN	PMP	RTCC	PPS		
16-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
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
	dsPIC33FJ06GS202	R	21	dsPIC	6	1024	AN1095 <sup>(1)</sup>	-	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	2 x 10-bit	2	1	1	4	-	2	1 UART, 1 SPI, 1 I <sup>2</sup> C	-	-	-	✓	\$2.38
	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	-	-	-	✓	\$2.52
	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
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
	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
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	-	-	-	-	\$3.07
	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	-	-	-	-	\$3.35
	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	-	-	-	-	\$3.36
	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	-	-	-	\$3.81
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	-	-	-	-	\$3.85
	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	-	-	-	\$4.34
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	-	-	-	-	\$4.41
	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	-	-	-	\$4.89

\*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.

## 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
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
MCP9509/10	±0.5	NS	-40 to +125	+2.7 to +5.5	50	Resistor-programmable temperature switch
MCP9700/01	±1	±4	-40 to +125	+2.3 to +5.5	12	Linear Active Thermistor® IC
MCP9700/01A	±1	±2	-40 to +125	+2.3 to +5.5	12	Linear Active Thermistor® IC
TC1046	±0.5	±2	-40 to +125	+2.7 to +4.4	60	High precision temperature-to-voltage converter, 6.25 mV/°C
TC1047A	±0.5	±2	-40 to +125	+2.5 to +5.5	60	High precision temperature-to-voltage converter, 10 mV/°C
MCP9808	±0.25	±0.5	-40 to +125	+2.7 to +5.5	400	0.5°C temperature accuracy from -10°C to +100°C
MCP9800/1/2/3	±0.5	±1	-55 to +125	+2.7 to +5.5	400	SMBus/I <sup>2</sup> C™ compatible interface, 0.0625°C to 0.5°C adj. resolution, Power-saving one-shot temperature measurement
MCP9804	±0.25	±1	-40 to +125	+2.7 to +5.5	400	User programmable temperature limits with alert output, 1°C temp. accuracy from -40°C to +125°C
MCP9843	±0.5	±1	-20 to +125	+3.0 to +3.6	400	JEDEC compatible register set, SMBus/I <sup>2</sup> C™ compatible interface, Programmable, Shut-down modes and EVENT output
MCP98243	±1	±3	-40 to +125	+3.0 to +3.6	500	Serial output temperature sensor with integrated EEPROM
TCN75A	±0.5	±2	-40 to +125	+2.7 to +5.5	500	SMBus/I <sup>2</sup> C™ compatible interface, Power-saving one-shot temperature measurement, Multi-drop capability, 0.0625°C to 0.5°C

## 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
TC1303/04/13	2.7 to 5.5	DC/DC: 0.8 to 4.5 LDO: 1.5 to 3.3	-40 to +85	PFM/PWM	2000	65/600	DC/DC: 500 mA LDO: 300 mA	Synchronous Buck Regulator, LDO w/Power Good with PFM/PWM auto-switching, Power Good output or Power Sequencing
MCP1602/3	2.7 to 5.5	0.8 to 4.5 /4.0	-40 to +85	PFM/PWM	2000	35/45	500	Synchronous Buck Regulator PFM, PWM auto-switching, UVLO, Soft-start, Power Good indicator, Over-temperature/current protection
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
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 protection
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
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
MCP16301	4.0 to 30	2.0 to 15	-40 to +85	PWM	500	2000	600	Integrated N-channel, UVLO, Soft-start, Over-temperature protection
MCP16321	6 to 24	0.9 to 5	-40 to +125	PWM/PFM	1000	2300	1000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power Good pin
MCP16322	6 to 24	0.9 to 5	-40 to +125	PWM/PFM	1000	2300	2000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power Good pin
MCP16323	6 to 18	0.9 to 5	-40 to +125	PWM/PFM	1000	2300	3000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power Good pin

## 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
TC1016/17	6	1.8 to 4.0	80/150	53	150/285	±0.5	Shutdown
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
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
TC2014/5, TC2185	6	1.8 to 5.0	50/100/150	55	45/90/140	±0.4	Shutdown, Reference bypass input
TC2054/5, TC2186	6	1.8 to 5.0	50/100/150	55	45/90/140	±0.4	Shutdown, Error output
MCP1700	6	1.2 to 5.0	250	1.6	300	±0.4	Very low I <sub>o</sub>
MCP1702/3	13.2/16	1.2 to 5.0	250	2	330/625	±0.4	Very low I <sub>o</sub>
MCP1725/6/7	6	0.8 to 5.0	500/1000/1500	120/140/140	210/300/330	±0.5	Shutdown, C <sub>DELAY</sub> , Power Good
MCP1754/S	16	1.8 to 5.5	150	56	300	±0.4	Power Good, Shutdown
MCP1790/1	30	3.0, 3.3, 5.0	70	70	500	±0.2	Load dump, Shutdown, Power Good
MCP1801/2	10	0.9 to 6.0	150/300	25	250/800	±0.4	Shutdown, High PSRR
MCP1804	28	1.8 to 18	150	50	300	±0.5	Shutdown, High PSRR
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
MCP1824S/5S/6S/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

## 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)	
TC1044S	1.5 to 12	-V <sub>IN</sub> or 2*V <sub>IN</sub>	-40 to +85	160	20	85 kHz oscillator B
TC7660	1.5 to 10	-V <sub>IN</sub> or 2*V <sub>IN</sub>	-40 to +85	180	20	10 kHz oscillator
TC7660H	1.5 to 10	-V <sub>IN</sub> or 2*V <sub>IN</sub>	-40 to +85	1000	20	120 kHz oscillator
TC7660S	1.5 to 12	-V <sub>IN</sub> or 2*V <sub>IN</sub>	-40 to +85	160	20	45 kHz oscillator B
TC7662B	1.5 to 15	-V <sub>IN</sub> or 2*V <sub>IN</sub>	-40 to +85	180	20	35 kHz oscillator B
TC7662A	3.0 to 18	-V <sub>IN</sub> or 2*V <sub>IN</sub>	-40 to +85	200	40	12 kHz oscillator
MCP1256	1.8 to 3.6	3.3	-40 to +85	100	100	Power Good Sleep
MCP1257	1.8 to 3.6	3.3	-40 to +85	100	100	Sleep mode low ba
MCP1258	1.8 to 3.6	3.3	-40 to +85	100	100	Low battery indica

## Power Management – CPU/System Supervisors

Product	Description	Operating Temp Range (°C)	Features	
MCP111(1/2) TC5(1/2/3/4)	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	5-SOT-23, 3
MCP809, MCP100, MCP130, MCP120 MCP13XX, 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	8-SOIC (150

## 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
MCP1401/02 Single	Inverting/Non-inverting	-40 to +125	0.5	18/16	18	
MCP1415/16 Single	Inverting/Non-inverting	-40 to +125	1.5	7.5/5.5	18	
TC4467/8/9 Quad	Inverting/Non-inverting	-40 to +85	1.2	15/15	18	
TC4426A/27A/28A Dual	Inverting/Non-inverting	-40 to +125	1.5	9/9	18	
TC4423A/24A/25A Dual	Inverting/Non-inverting	-40 to +125	3	3 (typ.)/4 (typ.)	18	40
MCP14E3/E4/E5 Dual	Inverting/Non-inverting	-40 to +125	4	3.5/3.0	18	
MCP14E6/E7/E8 Dual	Inverting/Non-inverting/Inverting and Non-inverting	-40 to +125	2	2.2/2.8	18	
MCP14E9/E10/E11 Dual	Inverting/Non-inverting/Inverting and Non-inverting	-40 to +125	3	2.2/2.8	18	
MCP1406/07 Single	Inverting/Non-inverting	-40 to +125	6	1.8/2.0 (typ.)	18	
TC4420/29	Inverting/Non-inverting	-40 to +125	6	2.8/2.5	18	
TC4421A/22A Single	Inverting/Non-inverting	-40 to +125	9	1.25 (typ.)/1.5	18	
TC4451/52 Single	Inverting/Non-inverting	-40 to +125	12	0.6 (typ.)/1.5	18	
TC4431/32 Single	Inverting/Non-inverting	-40 to +85	1.5	10/10	30	

## 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
MCP14700/14628	Dual input/Single input	-40 to +85	2	2.5/2.5	5 (V <sub>DD</sub> ), 36 (Boot Pin)	

## Power Management – Battery Chargers

Product	Mode	Cell Type	# of Cells	Vcc Range (V)	Cell Voltage (V)	Max. Charging Current (mA)	Max. Voltage Regulation (%)	Int/Ext FET	Features
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, Therm
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
MCP73830/L	Linear	Li-Ion/Li-Polymer	1	3.75 to 6	4.2	1000/200	±0.75	Int	Soft-start, Charge enable pin
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 Tri-state or open-drain STAT pin
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, Therm output or Timer enable input
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, Multiple programmable charge currents

## 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)
MCP6612/3/4/5/9	1/2/1/4/2/4	60	6000	8	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT	MCP6071/2/4	1/2/4	1.2	110	0.15
MCP6511/5/2/3/4/5/9	1/1/2/1/4/2/4	50	6000	0.2	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT	MCP6H01/2/4	1/2/4	1.2	135	4.5
MCP6312/3/4/5/9	1/2/1/4/2/4	24	2500	8	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT	MCP6001/2/4	1/2/4	1	100	4.5
MCP6211/5/2/3/4/5/9	1/1/2/1/4/2/4	20	2500	0.2	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT	MCP6401/2/4	1/2/4	1	45	4.5
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
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
MCP6L91/2/4	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
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
MCP6286	1	3.5	540	1.5	2.2 to 5.5	SOT	MCP6231/2/4	1/2/4	0.3	20	5
MCP6012/3/4	1/2/1/4	2.8	230	2	2.7 to 6.0	PDIP, SOIC, TSSOP, SOT	MCP616/7/8/9	1/2/1/4	0.19	19	0.15
MCP6L12/4	1/2/4	2.8	200	3	2.7 to 6.0	SOIC, MSOP, TSSOP, SOT	MCP606/7/8/9	1/2/1/4	0.155	19	0.25
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
MCP6L71/2/4	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
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
MCP6V06/7/8	1/2/1	1.3	300	0.003	1.8 to 5.5	SOIC, DFN, TDFN	MCP6441/2/4	1/2/4	0.009	0.45	4.5
MCP6V26/7/8	1/2/1	2	620	0.002	2.3 to 5.5	SOIC, MSOP, DFN					

## 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
MCP6541/2/3/4	1/2/1/4	4	1	5	1.6 to 5.5	-40 to +125	Push-Pull, Rail-to-Rail Input/Output
MCP6546/7/8/9	1/2/1/4	4	1	5	1.6 to 5.5	-40 to +125	Open-drain, 9V, Rail-to-Rail Input/Output
MCP65R41/6	1	4	2.5	10	1.8 to 5.5	-40 to +125	Integrated V <sub>REF</sub> (1.21V or 2.4V)
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
MCP6566/7/9	1/2/4	0.047	100	10	1.8 to 5.5	-40 to +125	Open-Drain, Rail-to-Rail Input/Output

## 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)	Temp
MCP3021/3221	10/12	22	1	Single-ended	I <sup>2</sup> C™	250	
MCP3001/2/4/8	10	200	1/2/4/8	Single-ended	SPI	500-550	
MCP3201/2/4/8	12	100	1/2/4/8	Single-ended	SPI	400-550	
MCP3301/2/4	13	100	1/2/4	Differential	SPI	450	



## Mixed Signal – Digital-to-Analog Converters

Product	Resolution (Bits)	DAC Channels	Interface	Voltage Reference	Output Settling Time (µs)	DNL (±LSB)	Typical Operating Current (µA)
MCP4706/16/26	8/10/12	1	I <sup>2</sup> C™	Ext	6	.05/188/75	210
MCP4725	12	1	I <sup>2</sup> C™	V <sub>DD</sub>	6	0.75	175
MCP4728	12	4	I <sup>2</sup> C™	Int	6	0.75	250
MCP4801/11/21	8/10/12	1	SPI	Int	4.5	0.5/0.5/0.75	330
MCP4802/12/22	8/10/12	2	SPI	Int	4.5	0.5/0.5/0.75	415
MCP4901/11/21	8/10/12	1	SPI	Ext	4.5	0.5/0.5/0.75	175
MCP4902/12/22	8/10/12	2	SPI	Ext	4.5	0.5/0.5/0.75	350
TC1320/1	8/10	1	SMbus	Ext	10	0.8/2	350

## Mixed Signal – Energy Measurement ICs

Product	Dynamic Range	Typical Accuracy	ADC Channels	Gain Selection	Output Type	Typical Supply Current (mA)	Analog Voltage Range (V)	Digital Voltage Range (V)
MCP3910/11	24-bit resolution	94.5 dB SINAD	2	up to 32	SPI/2-wire	1.7	2.7 to 3.6	2.7 to 3.6
MCP3903	24-bit resolution	91 dB SINAD	6	up to 32	SPI	8.3	4.5 to 5.5	2.7 to 3.6
MCP3905A/06A	500:1 /1000:1	0.1%	2	up to 32	Active power pulse	3.9	4.5 to 5.5	4.5 to 5.5
MCP3909	1000:1	0.1%	2	up to 16	Active power pulse/SPI	3.9	4.5 to 5.5	4.5 to 5.5

## Mixed Signal – Digital Potentiometers

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
MCP4017/18/19	128	Volatile	1	I <sup>2</sup> C™	5, 10, 50, 100	-40 to +125	SC70
MCP40D17/D18/D19	128	Volatile	1	I <sup>2</sup> C™	5, 10, 50, 100	-40 to +125	SC70
MCP4021/22/23/24	64	Nonvolatile	1	Up/Down	2.1, 5, 10, 50	-40 to +125	DFN, SOT-23
MCP4141/42	128	Nonvolatile	1	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN
MCP4241/42	128	Nonvolatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN
MCP4131/32	128	Volatile	1	SPI	5, 10, 50, 100	-40 to +125	QFN, DFN
MCP4231/32	128	Volatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN
MCP4151/52	256	Volatile	1	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN
MCP4161/62	256	Nonvolatile	1	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN
MCP4251/52	256	Volatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN
MCP4261/62	256	Nonvolatile	2	SPI	5, 10, 50, 100	-40 to +125	MSOP, QFN, DFN
MCP4341/42	129	Nonvolatile	4	SPI	5, 10, 50, 100	-40 to +125	TSSOP, QFN
MCP4361/62	257	Nonvolatile	4	SPI	5, 10, 50, 100	-40 to +125	TSSOP, QFN

Product	# of Taps	Memory	Channels	Interface
MCP4331/32	129	Volatile	4	SPI
MCP4351/52	257	Volatile	4	SPI
MCP4431/32	129	Volatile	4	I <sup>2</sup> C™
MCP4441/42	129	Nonvolatile	4	I <sup>2</sup> C™
MCP4451/52	257	Volatile	4	I <sup>2</sup> C™
MCP4461/62	257	Nonvolatile	4	I <sup>2</sup> C™
MCP4531/32	128	Volatile	1	I <sup>2</sup> C™
MCP4631/32	128	Volatile	2	I <sup>2</sup> C™
MCP4541/42	128	Nonvolatile	1	I <sup>2</sup> C™
MCP4641/42	128	Nonvolatile	2	I <sup>2</sup> C™
MCP4551/52	256	Volatile	1	I <sup>2</sup> C™
MCP4651/52	256	Volatile	2	I <sup>2</sup> C™
MCP4561/62	256	Nonvolatile	1	I <sup>2</sup> C™
MCP4661/62	256	Nonvolatile	2	I <sup>2</sup> C™

## 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)
MCP3421/2/3/4	18 to 12	4 to 240	1/2/2/4 Diff	I <sup>2</sup> C™	155	-40 to +125
MCP3425/6/7/8	16 to 12	15 to 240	1/2/2/4 Diff	I <sup>2</sup> C™	155	-40 to +125
MCP3550/1/3	22	13/14/60	1 Diff	SPI	120	-40 to +125

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

Product	Description	Operating Temperature Range (°C)	Other Features
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
MCP2551	CAN (Controller Area Network), High-speed CAN transceiver	-40 to +125	1 Mbps max. CAN bus speed, ISO11898 compatible, Industry standard pinout
MCP202(1/2)	LIN (Local Interconnect Network), LIN transceiver with voltage regulator	-40 to +125	V <sub>REG</sub> = 3.3V or 5V @ 50 mA, V <sub>CC</sub> Range = 7 to 18V, Max Baud Rate = 20 Kbaud, Compliant with LIN 1.3, 2.0, 2.1, SAE J2602
MCP200(3/4)A	Stand-alone LIN transceiver	-40 to +125	V <sub>CC</sub> Range = 6 to 27V, Max Baud Rate = 20 Kbaud, Compliant with LIN 1.3, 2.0, 2.1, SAE J2602, Automotive approved
MCP23X09/18	8-bit I/O port expander, 16-bit I/O port expander	-40 to +125	I <sup>2</sup> C (up to 3.4 MHz) or SPI (up to 10 MHz) interface, 25 mA source/sink per I/O
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
MCP2200	UART-to-USB protocol converter	-40 to +85	Supports full speed, USB 2.0 compliant, Integrated PHY, Tx/Rx Buffer size 128 bytes each, 8 GPIO, V <sub>DD</sub> Range = 3.0 to 5.5V
MCP2210	USB-to-SPI protocol converter	-40 to +85	Supports full speed, USB 2.0 compliant, Integrated PHY, Tx/Rx Buffer size 64 bytes each, 9 GPIO, V <sub>DD</sub> Range = 3.0 to 5.5V
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
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
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

## 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
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
AR1020	Analog Resistive	SPI, I <sup>2</sup> C™	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

## 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)
RE46C140/13/4/5	Yes	Photo	Yes	No	Yes	140/4/5	-20 to +85
RE46C12X & 152	Yes	Ion	Yes	No	Not 120	122/7, 152	-20 to +85
RE46C10X & 11X	Yes	Just Driver	5/7/9/19	NA	9/19	None	-20 to +85
RE46C162/3, 5/6/7/8	Yes	Ion/Photo	Yes	Yes	Yes	Yes	-20 to +85
RE46C180	Yes	Ion	Yes	Yes	Yes	Yes	-20 to +85
RE46C190	Yes	Photo	Yes	Yes	Yes	Yes	-20 to +85

## 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	Protections	Temperature Operating Range (°C)	Other Features
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, Allegro 6219
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, Allegro 2916
MTD6505	3-Phase Brushless DC Motor	2.0 to 5.5	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Overvoltage, Short Circuit, Overtemperature, Motor Lock-up	-40 to +125	180° Sinusoidal Sensorless, Coefficient Range
MTD6501C	3-Phase Brushless DC Motor	2.0 to 14.0	Internal	800	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Short Circuit, Overtemperature, Motor Lock-up	-30 to +95	180° Sinusoidal Sensorless
MTD6501D	3-Phase Brushless DC Motor	2.0 to 14.0	Internal	500	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Short Circuit, Overtemperature, Motor Lock-up	-30 to +95	180° Sinusoidal Sensorless
MTD6502B	3-Phase Brushless DC Motor	2.0 to 5.5	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Short Circuit, Overtemperature, Motor Lock-up	-40 to +125	180° Sinusoidal Sensorless

## Real-Time Clock/Calendar (RTCC)

Bus	Product	Timing Features				Memory <sup>(1)</sup>			Power		Unique Features <sup>(2)</sup>	Pins
		Digital Trimming (Adj/Range)	Alarm Settings	WDT	Outputs	SRAM (Bytes)	EEPROM (Kbits)	ID/MAC (Bits)	Minimum Voltages	I <sub>BAT</sub> (nA)		
I <sup>2</sup> C™	MCP7941X	± 127 ppm/+1 ppm	2 (1 sec.)	-	MFP ( $\overline{\text{IRO}}/\text{CLK}$ )	64	1	64	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp	8
	MCP7940X	± 127 ppm/+1 ppm	2 (1 sec.)	-	MFP ( $\overline{\text{IRO}}/\text{CLK}$ )	64	0	64	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp	8
	MCP7940N	± 127 ppm/+1 ppm	2 (1 sec.)	-	MFP ( $\overline{\text{IRO}}/\text{CLK}$ )	64	0	0	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp	8
	MCP7940M	± 127 ppm/+1 ppm	2 (1 sec.)	-	MFP ( $\overline{\text{IRO}}/\text{CLK}$ )	64	0	0	V <sub>CC</sub> : 1.8V	-	-	8
SPI	MCP795W2X	± 255 ppm/+1 ppm	2 (0.01 sec.)	✓	1. CLK 2. IRO 3. WDT RST	64	2	128	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp, Event Detects (x2)	14
	MCP795W1X	± 255 ppm/+1 ppm	2 (0.01 sec.)	✓	1. CLK 2. IRO 3. WDT RST	64	1	128	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp, Event Detects (x2)	14
	MCP795B2X	± 255 ppm/+1 ppm	2 (0.01 sec.)	✓	1. CLK 2. IRO 3. WDT RST	64	2	128	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp, Event Detects (x2), 32 KHz Boot Clock	14
	MCP795B1X	± 255 ppm/+1 ppm	2 (0.01 sec.)	✓	1. CLK 2. IRO 3. WDT RST	64	1	128	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp, Event Detects (x2), 32 KHz Boot Clock	14
	MCP7952X	± 255 ppm/+1 ppm	2 (0.01 sec.)	-	MFP ( $\overline{\text{IRO}}/\text{CLK}$ )	64	2	128	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp	10
	MCP7951X	± 255 ppm/+1 ppm	2 (0.01 sec.)	-	MFP ( $\overline{\text{IRO}}/\text{CLK}$ )	64	1	128	V <sub>CC</sub> : 1.8V, V <sub>BAT</sub> : 1.3V	<700	Power Fail Timestamp	10

1. All part numbers with an 'X' have 3 ID programming options: 0 = Blank ID; 1 = EUI-48™ MAC Address; 2 = EUI-64™ MAC Address
2. The Power Fail Timestamp in all RTCCs occur at Battery Switchover.

## Serial Memory Products

Bus	Product	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	E/W Endurance (Minimum)	Data Retention (Minimum)	Max. Write Speeds	Max. Standby Current (@5.5V, 85°C)	Write Protect		Protected Array Size	5-ku Pricing†	Special/Unique Features	
												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	Zero write cycle time, Infinite endurance, Volatile RAM, Byte/page/sequential read-write modes	PDIP (P), SOIC (SN), TSSOP (ST)
	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	-	-	-	\$0.87	Zero write cycle time, Infinite endurance, Volatile RAM, Byte/page/sequential read-write modes	PDIP (P), SOIC (SN), TSSOP (ST)
	23XX512	NR	512 Kb	x8	20 MHz	1.5V-1.95V 2.7V-3.6V 4.5V-5.5V	-40°C to +125°C	∞	Volatile or Non-Volatile	0 ms	4 µA	-	-	-	Call for Pricing	Non-Volatile RAM: Battery backup available, Fast speed: Quad SPI available, Infinite endurance, Zero write times	SOIC (SN), TSSOP (ST)
	23XX1024	NR	1024 Kb	x8	20 MHz	1.5V-1.95V 2.7V-3.6V 4.5V-5.5V	-40°C to +125°C	∞	Volatile or Non-Volatile	0 ms	4 µA	-	-	-	\$1.73	Non-Volatile RAM: Battery backup available, Fast speed: Quad SPI available, Infinite endurance, Zero write times	SOIC (SN), TSSOP (ST)
<b>Serial EEPROM</b>																	
UNI/O® Bus	11XX010	R	1 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, ½, ¼	\$0.23	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS)
	11XX020/E48	R	2 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, ½, ¼	\$0.25	Single I/O for all clock, data, control and write protection, Unique EUJ-48™/EUI-64™ MAC address option available	PDIP (P), SOIC (SN), MSOP (MS)
	11XX040	R	4 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, ½, ¼	\$0.26	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS)
	11XX080	R	8 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, ½, ¼	\$0.30	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS)
	11XX160	R	16 Kb	x8	100 kHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	-	✓	W, ½, ¼	\$0.33	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS)
I <sup>2</sup> C™	24XX00	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	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX01/014	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, ½	\$0.18	Address pin option – connect up to 8 devices on bus, Very low voltage option	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX02/024/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, ½	\$0.20	Address pin option – connect up to 8 devices on bus, Very low voltage option, Unique EUJ-48™/EUI-64™ MAC address option available	PDIP (P), SOIC (SN), TSSOP (ST)
	34XX02	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, ½	\$0.18	1 MHz @ 2.5V, Permanent and restorable software WP - DIMM-DDR2/3	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX00	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	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX01/014	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, ½	\$0.18	Address pin option – connect up to 8 devices on bus, Very low voltage option	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX02/024/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, ½	\$0.20	Address pin option – connect up to 8 devices on bus, Very low voltage option, Unique EUJ-48™/EUI-64™ MAC address option available	PDIP (P), SOIC (SN), TSSOP (ST)
	34XX02	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, ½	\$0.18	1 MHz @ 2.5V, Permanent and restorable software WP - DIMM-DDR2/3	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX04	R	4 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, ½	\$0.21	400 KHz @ 2.5V, 16 byte page write buffer, No address pins	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX08	R	8 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, ½	\$0.23	400 KHz @ 2.5V, 16 byte page write buffer, No address pins	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX16	R	16 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, ½	\$0.25	400 KHz @ 2.5V, 16 byte page write buffer, No address pins	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX32A	R	32 Kb	x8	400 kHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	-	W, ¼	\$0.31	400 KHz @ 2.5V, 32 byte page write buffer, connect up to 8 devices on bus	PDIP (P), SOIC (SN), TSSOP (ST)
	24XX64/65	R	64 Kb	x8	1 MHz	1.7V-5.5V	-40°C to +125°C	1M, 10M	200 Years	5 ms	1 µA	✓	-	W, ¼	\$0.38	1 MHz @ 2.5V, 32/64 byte page, Relocatable 4 Kb block with 10M cycles endurance	PDIP (P), SOIC (SN), TSSOP (ST)
24XX128	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	PDIP (P), SOIC (SN), TSSOP (ST)	
24XX256	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	PDIP (P), SOIC (SN), TSSOP (ST)	
24XX512	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	PDIP (P), SOIC (SN), TSSOP (ST)	
24XX1025/26	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	PDIP (P), SOIC (SN), SOIC (SN)	
24XX1024	NR	1 Mb	x8	1 MHz	2.5V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	5 µA	✓	-	W	-	1 MHz @ 2.5V, 256 byte page, Connect up to 4 devices on bus	PDIP (P), SOIC (SN), TSSOP (ST)	

1. All devices are Pb-Free and RoHS compliant.

2. ESD protection > 4 kV (HBM); >400V (MM) on all pins.

3. Write Protect (WP): W = Whole Array, ½ = Half Array, ¼ = Quarter Array.

4. Factory program and unique ID options available.

5. 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 (@5.5V, 85°C)	Write Protect		Protected Array Size	5-ku Pricing <sup>†</sup>	Special/Unique Features	
												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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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	PDIP (P), SOIC (SN)
	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)

1. All devices are Pb-Free and RoHS compliant.

2. ESD protection > 4 kV (HBM); >400V (MM) on all pins.

3. Write Protect (WP): W = Whole Array, ½ = Half Array, ¼ = Quarter Array.

4. Factory program and unique ID options available.

5. Die and wafer options available on all devices.

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

## SST Serial Flash Memory

Bus	Product*	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	E/W Endurance (Typical)	Data Retention (Minimum)	Write Speed (Typical)	Write Protect				Special/Unique Features
											Max. Standby Current	Hardware	Software	Protected Array Size	
x1	SST25VF512A	R	512 Kb	64K x 8	33 MHz	2.7-3.6V	0°C to 70°C -40°C to +85°C -20 to +85°C	100,000 cycles (typical)	100 years	14 µs (Byte Program)	8 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
	SST25VF010A	R	1 Mb	128K x 8	33 MHz	2.7-3.6V	0°C to 70°C -40°C to +85°C -20 to +85°C	100,000 cycles (typical)	100 years	14 µs (Byte Program)	8 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
	SST25VF020B	R	2 Mb	256K x 8	80 MHz	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
	SST25VF040B	R	4 Mb	512K x 8	80 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
	SST25VF080B	R	8 Mb	1M x 8	80 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
	SST25VF016B	R	16 Mb	2M x 8	75 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
	SST25VF032B	R	32 Mb	4M x 8	80 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
	SST25VF032B	R	32 Mb	4M x 8	80 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, prog
x1, x2	SST25VF064C	R	64 Mb	8M x 8	80 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (typical)	100 years	1.5 ms (Page Program)	5 µA	✓	✓	Various	Dual output and dual I/O read, Single- and dual-input p One-time programmable area, Fast read, program and
x4	SST26VF016	R	16 Mb	2M x 8	80 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	8 µA	✓	✓	Various	SQI™ Quad I/O read/program/erase, Burst read, Inde Individual block read and write protection, Fast read, p
	SST26VF032	R	32 Mb	4M x 8	80 MHz	2.7-3.6V	-40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	8 µA	✓	✓	Various	SQI™ Quad I/O read/program/erase, Burst read, Inde Individual block read and write protection, Fast read, p
x1, x2, x4	SST26WF080B	NR	8 Mb	1M x 8	104 MHz	1.65-1.95V	0°C to 70°C -40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	3 µA	✓	✓	Various	x1, x2, x4 read, Single-and quad-input page program, Individual block read and write protection, Fast read, p
	SST26WF016B	NR	16 Mb	2M x 8	104 MHz	1.65-1.95V	0°C to 70°C -40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	3 µA	✓	✓	Various	x1, x2, x4 read, Single-and quad-input page program, Individual block read and write protection, Fast read, p
	SST26VF032B	NR	32 Mb	4M x 8	104 MHz	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	15 µA	✓	✓	Various	x1, x2, x4 read, Single-and quad-input page program, Individual block read and write protection, Fast read, p
	SST26VF064B	NR	64 Mb	8M x 8	104 MHz	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	15 µA	✓	✓	Various	x1, x2, x4 read, Single-and quad-input page program, Individual block read and write protection, Fast read, p

\*2.5V available on certain 25 series devices.

\*\*Only standard packages are listed here. Please inquire with your local sales office for devices in die form or in chip-scale packages.

## LPC Firmware Flash/Firmware Hub Flash Memory

Bus	Product	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	E/W Endurance (Typical)	Data Retention (Minimum)	Write Speed (Typical)	Write Protect				Special/Unique Features
											Max. Standby Current	Hardware	Software	Protected Array Size	
x4	SST49LF008A	R	8 Mb	1M x 8	33 MHz	3.0-3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	Firmware Hub (FWH) device for PC-BIOS application, provide protection for the storage and update of code.
	SST49LF016C	R	16 Mb	2M x 8	33 MHz	3.0-3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	Firmware Hub (FWH) device for PC-BIOS application, provide protection for the storage and update of code.
	SST49LF080A	R	8 Mb	1M x 8	33 MHz	3.0-3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	LPC Flash devices comply with the standard Intel Low Specification 1.1, provide protection for the storage an
	SST49LF160C	R	16 Mb	2M x 8	33 MHz	3.0-3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	LPC Flash devices comply with the standard Intel Low Specification 1.1, provide protection for the storage an

## SST Parallel Flash Memory

Bus	Product*	Released (R) Not Released (NR)	Density	Organization	Read Access Speed	Operating Voltage	Temperature Range	E/W Endurance (Typical)	Data Retention (Minimum)	Write Speed (Typical)	Write Protect				Special/Unique Features
											Max. Standby Current	Hardware	Software	Protected Array Size	
x8	SST39SF010A	R	1 Mb	128K x 8	45/70 ns	4.5-5.5V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	30 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39LF010	R	1 Mb	512K x 8	45 ns	3.0-3.6V	0°C to 70°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39VF010	R	1 Mb	512K x 8	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39LF020	R	2 Mb	512K x 8	45/55 ns	3.0-3.6V	0°C to 70°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39SF020A	R	2 Mb	256K x 8	45/55/70 ns	4.5-5.5V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	30 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39VF020	R	2 Mb	512K x 8	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39SF040	R	4 Mb	512K x 8	45/70 ns	4.5-5.5V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	30 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39LF040	R	4 Mb	512K x 8	45 ns	3.0-3.6V	0°C to 70°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39VF040	R	4 Mb	512K x 8	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39VF168X	R	16 Mb	2M x 8	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs (Byte Program)	3 µA	✓	-	64 KB	Fast read, program and erase, Low power, Small erase sector
x16	SST39LF200A	R	2 Mb	128K x 16	55 ns	3.0-3.6V	0°C to 70°C	100,000 cycles	100 years	14 µs (Word Program)	3 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39VF200A	R	2 Mb	128K x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	14 µs (Word Program)	3 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39LF40XC	R	4 Mb	256K x 16	55 ns	3.0-3.6V	0°C to 70°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	-	8 KB	Fast read, program and erase, Low power, Small erase sector, In command set and boot block structure
	SST39WF400B	R	4 Mb	256K x 16	70 ns	1.65-1.95V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	28 µs (Word Program)	5 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39VF40XC	R	4 Mb	256K x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	-	8 KB	Fast read, program and erase, Low power, Small erase sector, In command set and boot block structure
	SST39WF800B	R	8 Mb	512K x 16	70 ns	1.65-1.95V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	28 µs (Word Program)	5 µA	-	-	N/A	Fast read, program and erase, Low power, Small erase sector
	SST39LF80XC	R	8 Mb	512K x 16	55 ns	3.0-3.6V	0°C to 70°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	-	N/A	Fast read, program and erase, Low power, Small erase sector, In command set and boot block structure
	SST39VF80XC	R	8 Mb	512K x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	-	N/A	Fast read, program and erase, Low power, Small erase sector, In command set and boot block structure
	SST39WF160X	R	16 Mb	1M x 16	70 ns	1.65-1.95V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	28 µs (Word Program)	5 µA	✓	-	32 KB	Fast read, program and erase, Low power, Small erase sector
	SST39VF160XC	R	16 Mb	1M x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	-	8 KB	Fast read, program and erase, Low power, Small erase sector, In command set and boot block structure
	SST39VF160X	R	16 Mb	2M x 8	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs (Byte Program)	3 µA	✓	-	64 KB	Fast read, program and erase, Low power, Small erase sector
	SST39VF320XB	R	32 Mb	2M x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	4 µA	✓	-	32 KB	Fast read, program and erase, Low power, Small erase sector
	SST39VF320XC	R	32 Mb	2M x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	4 µA	✓	-	8 KB	Fast read, program and erase, Low power, Small erase sector, In command set and boot block structure
	SST38VF640X	R	64 Mb	4M x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs/1.75 µs (Write Buffer Program)	3 µA	✓	✓	32 KB/ 8 KB	Fast read, program and erase, Low power, Small erase sector, In command set and boot block structure, Security features
	SST38VF640XB	NR	64 Mb	4M x 16	70 ns	2.7-3.6V	0°C to 70°C -40°C to +85°C	100,000 cycles	100 years	7 µs/1.75 µs (Write Buffer Program)	3 µA	✓	✓	32 KB/ 8 KB	Fast read, program and erase, Low power, Industry standard command set and boot block structure, Security features

\*X is a wildcard to indicate "top" or "bottom" boot block support. Please refer to the respective datasheets for more details.

\*\*Only standard packages are listed here. Please inquire with your local sales office for devices in die form or in chip-scale packages.

## SST RF Products

### WLAN Power Amplifiers

Product	Description	Frequency (GHz)	PA/Tx Gain (dB)	Linear Power (dBm)	% EVM	Voltage Range (V)	LNA/Rx Gain (dB)
SST11CP15-QUBE	WLAN 11a/n PA (Low Current)	5	25.5-28.5	18.5 21	3.0% 3.0%	3.3 5	-
SST11LP12-QCF	WLAN 11a/n PA (High Power)	5	35	21	3.0%	3.3	-
SST12LP07A-QXBE	WLAN 11b/g/n PA	3.4	28	20.5	3.0%	3.3	-
SST12CP11-QVCE	WLAN 11b/g/n PA (Ultra High Power)	2.4	34	25	3.0%	5	-
SST12LP07-QVCE-MM007	WLAN 11b/g/n PA	2.4	29	19.5	3.0%	3.3	-
SST12LP08A-QX8E	WLAN 11b/g/n High Gain PA	2.4	29	20.5	3.0%	3.3	-
SST12LP08-QX6E	WLAN 11b/g/n High Gain PA	2.4	30	20	3.0%	3.3	-
SST12LP08-QXBE	WLAN 11b/g/n High Gain PA	2.4	30	20	3.0%	3.3	-
SST12LP14A-QVCE	WLAN 11b/g PA	2.4	29	21	3.0%	3.3	-
SST12LP14C-QVCE	WLAN 11b/g PA	2.4	32	20	4.0%	3.3	-
SST12LP14E-QX6E	WLAN 11b/g/n PA (Low Current)	2.4	23	19	3.0%	3.3	-
SST12LP14E-QX8E	WLAN 11b/g/n PA (Low Current)	2.4	23	19	3.0%	3.3	-
SST12LP14-QVCE	WLAN 11b/g PA	2.4	30	20	4.0%	3.3	-
SST12LP15A-QVCE	WLAN 11b/g/n PA (High Power)	2.4	32	22	3.0%	3.3	-
SST12LP15B-QVCE	WLAN 11b/g/n PA (High Power)	2.4	32	22	<3%	3.3	-
SST12LP18E-QX8E	WLAN 11b/g/n PA (Low Current /Low Voltage)	2.4	25	18	3.0%	3.3	-
SST12LP19E-QX6E	WLAN 11b/g/n PA (Low Current)	2.4	25	20	3.0%	3.3	-
SST12LP19E-QX8E	WLAN 11b/g/n PA (Low Current)	2.4	25	20	3.0%	3.3	-

### WLAN Power Amplifier Modules

SST13LP05-MLCF	WLAN 11a/b/g Dual-Band 50 Ω Matched PAM	2.4 5	29 29-26	18.5 17.5	3.0%	3.3	-
SST12LP17E-QU8E	WLAN 11b/g/n 50 Ω Matched PAM	2.4	29	18	<3%	3.3	-

### Front End Modules

SST12LF01-QDE	WLAN 11b/g FEM (PA+LNA)	2.4	29	19	3.0%	3.3	14
SST12LF02-QXCE	WLAN 11b/g/n FEM (PA+SP3T)	2.4	29	18.5	3.0%	3.3	-0.5

### Low-Noise Amplifier

SST12LN01-QU6E	WLAN 2.4 GHz LNA	2.4	-	-	-	3.3	14
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## 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
MRF24WB0MA	36	2.412-2.484	-91	10	Yes	156	85	25 MHz	0.1	Yes	802.11	WPA, WPA2, WPA3
MRF24WB0MB	36	2.412-2.484	-91	10	Yes	156	85	25 MHz	0.1	Yes	802.11	WPA, WPA2, WPA3

### 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
MRF24J40	40	2.405-2.48	-95	0	Yes	23	19	20 MHz	2 µA	Yes	CSMA-CA	AES128
MRF24J40MA	12	2.405-2.48	-95	0	Yes	23	19	20 MHz	2 µA	Yes	CSMA-CA	AES128
MRF24J40MB	12	2.405-2.48	-102	20	Yes	130	25	20 MHz	5 µA	Yes	CSMA-CA	AES128
MRF24J40MC	12	2.405-2.48	-108	20	Yes	120	25	20 MHz	12 µA	Yes	CSMA-CA	AES128

### 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
MRF49XA	16	433/868/915	-110	7	Yes	15 mA @ 0 dBm	11	10 MHz	0.3 µA
MRF89XA	32	868/915/950	-113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA
MRF89XAM8A	12	868	-113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA
MRF89XAM9A	12	915	-113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA

### rfPIC™ Transmitters + PIC® MCUs

Product	I/O Pins	Frequency Range (MHz)	Program Words	EEPROM	RAM (bytes)	Digital Timer	Watch Dog Timer	Max. Speed (MHz)	ICSP™	Modulation	Data Rate (kbps)	Output Power (dBm)
PIC12F529T48A	6	418-868	1024 X 1.5	-	201	1	1	8	Yes	OOK/FSK	100	10
PIC12F529T48AT	6	418-868	1024 X 1.5	-	201	1	1	8	Yes	OOK/FSK	100	10
PIC12F529T39A	6	310-928	1024 X 1.5	-	201	1	1	8	Yes	OOK/FSK	100	10
PIC12F529T39AT	6	310-928	1024 X 1.5	-	201	1	1	8	Yes	OOK/FSK	100	10
PIC12LF1840T48A	6	418-868	1024 x 4	256	256	2	1	32	Yes	OOK/FSK	100	10
PIC12LF1840T48AT	6	418-868	1024 x 4	256	256	2	1	32	Yes	OOK/FSK	100	10
PIC12LF1840T39A	6	310-928	1024 x 4	256	256	2	1	32	Yes	OOK/FSK	100	10
PIC12LF1840T39AT	6	310-928	1024 x 4	256	256	2	1	32	Yes	OOK/FSK	100	10
rfPIC12F675F	6	380-450	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10
rfPIC12F675H	6	850-930	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10
rfPIC12F675K	6	290-350	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10

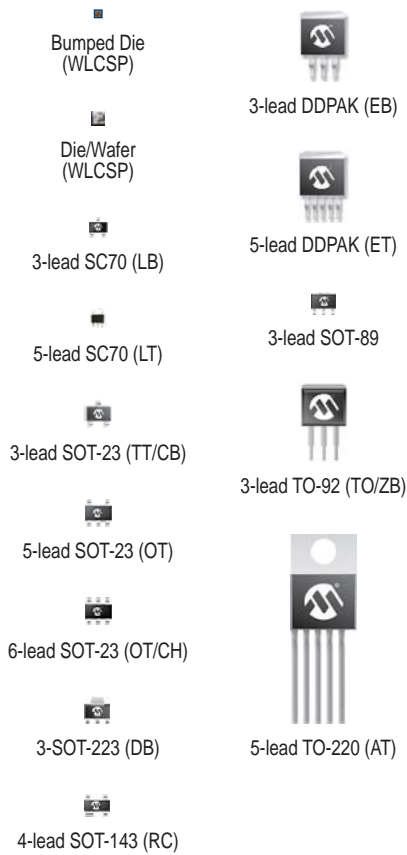
† - Pricing subject to change; please contact your Microchip representative for most current pricing.

## Terms and Definitions

<b>1 KB</b>	1024 bytes	<b>CVD</b>	Charge Voltage Divide (Capacitive Sensing Implemented via ADC)	<b>ICD</b>	In-Circuit Debug	<b>PIC3</b>	
<b>1 Kw</b>	1024 words	<b>CWG</b>	Complementary Waveform Generator	<b>ICE</b>	In-Circuit Emulation	<b>PLV</b>	
<b>18F/PIC18</b>	16-bit instruction word – 75/83 instructions	<b>DAC</b>	Digital-to-Analog Converter	<b>ICSP™</b>	In-Circuit Serial Programming™	<b>POR</b>	
<b>ADC</b>	Analog to Digital Converter	<b>DSM</b>	Data Signal Modulator	<b>IDE</b>	Integrated Development Environment	<b>PSM</b>	
<b>AUSART</b>	Addressable Universal Synchronous Asynchronous Receiver Transceiver	<b>dsPIC®</b>	16-bit Core with DSP	<b>Inst Amp</b>	Instrumentation Amplifier	<b>PWM</b>	
<b>BL/Baseline</b>	12-bit instruction word – 33 instructions	<b>EEPROM</b>	Electrically Erasable Programmable Read Only Memory	<b>LCD</b>	Liquid Crystal Display	<b>RAM</b>	
<b>BOR/PBOR</b>	Brown Out Reset/Programmable Brown Out Reset	<b>EFT</b>	Electrical Fast Transient	<b>LDO</b>	Low Drop-Out voltage regulator	<b>RTC</b>	
<b>CAN</b>	Controller Area Network	<b>EMC</b>	Electromagnetic Compatibility	<b>LF</b>	Low Power Flash	<b>Sour</b>	
<b>CCP/ECCP</b>	Capture Compare PWM/Enhanced Capture Compare PWM	<b>EMI</b>	Electromagnetic Interference	<b>MFC/P/C</b>	Master Inter-Integrated Circuit bus/Inter-Integrated Circuit bus	<b>SR L</b>	
<b>CLC</b>	Configurable Logic Cell	<b>EMR/Enhanced-Mid-Range</b>	14-bit instruction word – 49 instructions (denoted as PIC1XF1XXX)	<b>MIPS</b>	Million Instructions Per Second	<b>SRA</b>	
<b>COG</b>	Complementary Output Generator	<b>ESD</b>	Electrostatic Discharge	<b>MR/Mid-Range</b>	14-bit instruction word – 35 instructions	<b>SPI</b>	
<b>Comp</b>	Capacitive Sensing implemented via Comparator	<b>EUSART</b>	Enhanced Universal Synchronous Asynchronous Receiver Transceiver	<b>MSSP/SSP</b>	Master/Synchronous Serial Port (I²C & SPI Peripheral)	<b>TIG</b>	
<b>CRIC</b>	Cyclical Redundancy Check	<b>EWD/WD</b>	Extended Watch Dog Timer/Watch Dog Timer	<b>mTouch™</b>	Proprietary Touch Sensing Technology	<b>USA</b>	
<b>CSM</b>	mTouch – Capacitive Sensing Module	<b>HV</b>	High Voltage	<b>NCO</b>	Numerically Controlled Oscillator	<b>USB</b>	
<b>CSP</b>	Chip Scale Package			<b>Op Amp</b>	Operational Amplifier	<b>USB</b>	
<b>CTMU</b>	mTouch – Charge Time Measurement Unit			<b>PIC10/12/16/18</b>	8-bit Core	<b>XL</b>	
				<b>PIC24</b>	16-bit Core		

## Product Packages

### Small Outline



### Dual Flat No Lead DFN



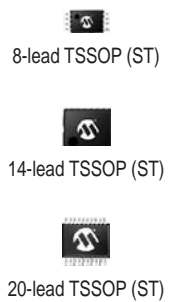
### Quad Flat No Lead QFN



### Plastic Shrink Small Outline SSOP



### Plastic Thin Shrink Small Outline TSSOP



Packages are shown approximate size.

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

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

## Product Packages

### Plastic Thin Quad Flatpack TQFP



44-lead TQFP (PT)  
10 x 10 x 1 mm



64-lead TQFP (PT)  
10 x 10 x 1 mm



64-lead TQFP (PF)  
14 x 14 x 1 mm



80-lead TQFP (PT)  
12 x 12 x 1 mm



80-lead TQFP (PF)  
14 x 14 x 1 mm



100-lead TQFP (PT)  
12 x 12 x 1 mm



100-lead TQFP (PF)  
14 x 14 x 1 mm



144-lead TQFP (PH)  
16 x 16 x 1 mm

### Plastic Quad Flatpack QFP



32-lead LQFP (LQ)  
7 x 7 x 1.4 mm



44-lead MQFP (PQ)  
10 x 10 x 2 mm

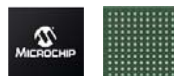


144-lead LQFP (PL)  
20 x 20 x 1.4 mm

### Ball Grid Array BGA



100-ball BGA (BG)  
10 x 10 x 1.1 mm



121-ball BGA (BG)  
10 x 10 x 0.8 mm

### Plastic Dual In-Line PDIP



8-lead PDIP (P)



14-lead PDIP (P)



18-lead PDIP (P)



20-lead PDIP (P)



24-lead PDIP (P)

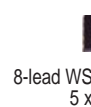


28-lead SPDIP (SP)



40-lead PDIP (P)

### NOR Flash



8-lead WS  
5 x 5 mm



32-lead PL  
60



32-lead PL  
.452



40-lead TS  
10 x 10



48-lead WF  
4 x 6



48-lead TF  
6 x 8



48-lead TS  
12 x 20

Packages are shown approximate size.

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