Corporate Focus Product Selector Guide

Second Half 2010

MICROCHIP

Focus Product Selector Guide

Featuring:
8-, 16- and 32-bit PIC® Microcontrollers
dsPIC® Digital Signal Controllers
Analog & Interface Products
Serial EEPROMs, Serial SRAMs, SST NOR Flash Memory and RF Products

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8-bit PIC® Microcontrollers

Based on a powerful RISC core, the PIC microcontroller architecture provides users with an easy migration path from 6 to 100 pins among all families, with little or no code change required. Advanced features include sophisticated timing peripherals, integrated analog-to-digital converters and communications peripherals (Ethernet/I²C™/SPI/USB/CAN ports and LIN USARTs). For more information visit: www.microchip.com/8bit

16-bit PIC® Microcontrollers

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

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

dsPIC® Digital Signal Controllers

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

Analog & 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

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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
- IEEE 802.11/Wi-Fi

For more information visit: www.microchip.com/wireless

Serial Memory Products

Microchip offers the broadest range of Serial EEPROM devices (from 128 bits to 1 Mbit) over the widest operating voltage (1.7 to 5.5V) and temperature ranges (Up to 150°C). Microchip Serial EEPROMs are compatible with the I²C, SPI, Microwire and UNI/O® bus. Innovative low-power designs and extensive testing ensure industry leading endurance and best-in-class quality at low costs.

SPI-compatible Serial SRAM devices provide additional external serial RAM with high-speed performance and are available in standard 8-pin packages. For more information visit: www.microchip.com/memory

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8-bit PIC® Microcontrollers

	Product	Released (R) Not Released (NR)	Pins		Core	Memory					Voltage Range	Operating Speed		LCD Segments	mTouch™		Analog				Digital				Communication							ECAN	Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features	
			Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator		Module	Channels	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™	SPI	Ethernet (MAC/PHY)	FS-USB		BOR/PBOR	PLVD					
6-Pin	PIC10F200	R	6	4	BL	0.375 KB 0.25 Kw	–	–	16	–	2V-5.5V	4 MHz	4 MHz	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.30	PDIP (P), 2x3 DFN (MC), SOT–23 (OT)	Smallest form–factor	6-Pin
	PIC10F202	R	6	4	BL	0.75 KB 0.50 Kw	–	–	24	–	2V-5.5V	4 MHz	4 MHz	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.33	PDIP (P), 2x3 DFN (MC), SOT–23 (OT)	Smallest form–factor	
	PIC10F204	R	6	4	BL	0.375 KB 0.25 Kw	–	–	16	–	2V-5.5V	4 MHz	4 MHz	0	Comp	1	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.33	PDIP (P), 2x3 DFN (MC), SOT–23 (OT)	Smallest form–factor	
	PIC10F206	R	6	4	BL	0.75 KB 0.50 Kw	–	–	24	–	2V-5.5V	4 MHz	4 MHz	0	Comp	1	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.36	PDIP (P), 2x3 DFN (MC), SOT–23 (OT)	Smallest form–factor	
	PIC10F220	R	6	4	BL	0.375 KB 0.25 Kw	–	–	16	–	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	–	–	3	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.36	PDIP (P), 2x3 DFN (MC), SOT–23 (OT)	Smallest form–factor	
	PIC10F222	R	6	4	BL	0.75 KB 0.50 Kw	–	–	23	–	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	–	–	3	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.39	PDIP (P), 2x3 DFN (MC), SOT–23 (OT)	Smallest form–factor	
8-Pin	PIC12F508	R	8	6	BL	0.75 KB 0.50 Kw	–	–	25	–	2V-5.5V	4 MHz	4 MHz	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.41	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	–	8-Pin
	PIC12F509	R	8	6	BL	1.5 KB 1 Kw	–	–	41	–	2V-5.5V	4 MHz	4 MHz	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.45	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	–	
	PIC12F510	R	8	6	BL	1.5 KB 1 Kw	–	–	38	–	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	Comp	1	3	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.49	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	–	
	PIC12F519	R	8	6	BL	1.5 KB 1 Kw	–	–	41	64	2V-5.5V	8 MHz	4 MHz, 8 MHz	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.49	PDIP (P), SOIC (SN), MSOP (MS), 2x3 DFN (MC)	Lowest cost Data EE	
	PIC12F609	R	8	6	MR	1.75 KB 1 Kw	–	–	64	–	2V-15V	20 MHz	4 MHz, 8 MHz	0	Comp	1	–	–	–	1	–	–	1	1	–	–	–	–	–	–	–	BOR	–	–	✓	$0.52	PDIP (P), SOIC (SN), MSOP (MS), 4x4 DFN (MD), 3x3 DFN (MF)	–	
	PIC12F615	R	8	6	MR	1.75 KB 1 Kw	–	–	64	–	2V-15V	20 MHz	4 MHz, 8 MHz	0	Comp	1	–	4	–	1	–	1	2	1	–	–	–	–	–	–	–	BOR	SW ◊	–	✓	$0.55	PDIP (P), SOIC (SN), MSOP (MS), 4x4 DFN (MD), 3x3 DFN (MF)	–	
	PIC12F617	R	8	6	MR	3.5 KB 2 Kw	✓	✓	128	–	2V-5.5V	20 MHz	4 MHz, 8 MHz	0	Comp	1	–	4	–	1	–	1	2	1	–	–	–	–	–	–	–	BOR	SW ◊	–	✓	$0.59	PDIP (P), SOIC (SN), MSOP (MS), 3x3 DFN (MF)	–	
	PIC12F629	R	8	6	MR	1.75 KB 1 Kw	–	–	64	128	2V-5.5V	20 MHz	4 MHz	0	Comp	1	–	–	–	1	–	–	1	1	–	–	–	–	–	–	–	BOR	–	–	✓	$0.70	PDIP (P), SOIC (SN), 4x4 DFN (MD), 6x5 DFN (MF)		
	PIC12F1822 NEW	R	8	6	EMR	3.5 KB 2 Kw	✓	✓	128	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	4	–	4	–	1	–	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	–	✓	$0.73	PDIP (P), SOIC (SN), 3x3 DFN (MF)	XLP	
	PIC12F675	R	8	6	MR	1.75 KB 1 Kw	–	–	64	128	2V-5.5V	20 MHz	4 MHz	0	Comp	1	–	3	–	1	–	–	1	1	–	–	–	–	–	–	–	BOR	–	–	✓	$0.77	PDIP (P), SOIC (SN), 4x4 DFN (MD), 6x5 DFN (MF)	–	
	PIC12F635	R	8	6	MR	1.75 KB 1 Kw	–	–	64	128	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	Comp	1	–	–	–	1	–	–	1	1	–	–	–	–	–	–	–	BOR	✓	–	✓	$0.84	PDIP (P), SOIC (SN), 4x4 DFN (MD)	KEELOQ®	
	PIC12F683	R	8	6	MR	3.5 KB 2 Kw	–	–	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	Comp	1	–	3	–	1	1	–	2	1	–	–	–	–	–	–	–	PBOR	–	–	✓	$0.91	PDIP (P), SOIC (SN), 4x4 DFN (MD)	–	
14-Pin	PIC16F505	R	14	12	BL	1.5 KB 1 Kw	–	–	72	–	2V-5.5V	20 MHz	4 MHz	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.48	PDIP (P), SOIC (SL), TSSOP (ST), 3x3 QFN (MG)	–	14-Pin
	PIC16F506	R	14	12	BL	1.5 KB 1 Kw	–	–	67	–	2V-5.5V	20 MHz	4/8 MHz	0	Comp	2	4	–	–	2	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.52	PDIP (P), SOIC (SL), TSSOP (ST), 3x3 QFN (MG)	–	
	PIC16F526	R	14	12	BL	1.5 KB 1 Kw	–	–	67	64	2V-5.5V	20 MHz	4/8 MHz	0	Comp	2	4	–	–	2	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.55	PDIP (P), SOIC (SL), TSSOP (ST), 3x3 QFN (MG)	Lowest cost Data EE	
	PIC16F610	R	14	12	MR	1.75 KB 1 Kw	–	–	64	–	2V-15V	20 MHz	4/8 MHz	0	SR Latch	4	–	–	–	2	–	–	1	1	–	–	–	–	–	–	–	BOR	–	✓	✓	$0.59	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	–	
	PIC16F616	R	14	12	MR	3.5 KB 2 Kw	–	–	128	–	2V-15V	20 MHz	4/8 MHz	0	SR Latch	4	–	8	–	2	–	1	2	1	–	–	–	–	–	–	–	BOR	SW ◊	✓	✓	$0.69	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	–	
	PIC16F1823 NEW	R	14	12	EMR	3.5 KB 2 Kw	✓	✓	128	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	8	–	8	–	2	–	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$0.78	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	XLP	
	PIC16F1824 NEW	NR	14	12	EMR	7 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	8	–	8	–	2	2	2	4	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$0.84	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	DSM, XLP	
	PIC16F630	R	14	12	MR	1.75 KB 1 Kw	–	–	64	128	2V-5.5V	20 MHz	4 MHz	0	Comp	1	–	–	–	1	–	–	1	1	–	–	–	–	–	–	–	BOR	–	–	✓	$0.91	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	–	
	PIC16F636	R	14	12	MR	3.5 KB 2 Kw	–	–	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	Comp	2	–	–	–	2	–	–	1	1	–	–	–	–	–	–	–	BOR	–	–	✓	$0.92	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	KEELOQ®	
	PIC16F676	R	14	12	MR	1.75 KB 1 Kw	–	–	64	128	2V-5.5V	20 MHz	4 MHz	0	Comp	1	–	8	–	1	–	–	1	1	–	–	–	–	–	–	–	BOR	–	–	✓	$0.98	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	–	
	PIC16F684	R	14	12	MR	3.5 KB 2 Kw	–	–	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	Comp	2	–	8	–	2	–	1	2	1	–	–	–	–	–	–	–	BOR	–	–	✓	$0.98	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	–	
	PIC16F688	R	14	12	MR	7 KB 4 Kw	✓	–	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	Comp	2	–	8	–	2	–	–	1	1	–	1	–	–	–	–	–	BOR	–	–	✓	$1.04	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	–	
	PIC16F1825 NEW	NR	14	12	EMR	14 KB 8 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	8	–	8	–	2	2	2	4	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	Call for Pricing	PDIP (P), SOIC (SL), TSSOP (ST), 4x4 QFN (ML)	DSM, XLP	

Products sorted by pin count followed by pricing.

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

◊ - Software PLVD implemented via ADC.

8-bit PIC® Microcontrollers

	Product	Released (R) Not Released (NR)	Pins		Core	Memory					Voltage Range	Operating Speed		LCD Segments	mTouch™		Analog				Digital				Communication						ECAN	Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features	
			Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator		Module	Channels	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™	SPI	Ethernet (MAC/PHY)	FS-USB		BOR/PBOR	PLVD					
18-Pin	PIC16F54	R	18	12	BL	0.75 KB 0.50 Kw	–	–	25	–	2V-5.5V	20 MHz	0	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.39	PDIP (P), SOIC (SO), SSOP (SS)	–	18-Pin
	PIC16F716	R	18	13	MR	3.5 KB 2 Kw	–	–	128	–	2V-5.5V	20 MHz	0	0	–	–	–	4	–	0	–	1	2	1	–	–	–	–	–	–	–	BOR	–	–	–	$0.77	PDIP (P), SOIC (SO), SSOP (SS)	–	
	PIC16F1826 NEW	R	18	16	EMR	3.5 KB 2 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	12	–	12	–	2	–	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$0.97	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	DSM, XLP	
	PIC16F1827 NEW	R	18	16	EMR	7 KB 4 Kw	✓	✓	384	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	12	–	12	–	2	2	2	4	1	–	1	2	2	–	–	–	BOR	SW ◊	✓	✓	$1.04	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	DSM, XLP	
	PIC16F627A	R	18	16	MR	1.75 KB 1 Kw	–	–	224	128	2V-5.5V	20 MHz	4 MHz, 48 kHz	0	Comp	2	–	–	–	2	1	–	2	1	1	–	–	–	–	–	–	BOR	–	–	–	$1.30	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	–	
	PIC16F628A	R	18	16	MR	3.5 KB 2 Kw	–	–	224	128	2V-5.5V	20 MHz	4 MHz, 48 kHz	0	Comp	2	–	–	–	2	1	–	2	1	1	–	–	–	–	–	–	BOR	–	–	–	$1.47	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	–	
	PIC16F648A	R	18	16	MR	7 KB 4 Kw	–	–	256	256	2V-5.5V	20 MHz	4 MHz, 48 kHz	0	Comp	2	–	–	–	2	1	–	2	1	1	–	–	–	–	–	–	BOR	–	–	–	$1.67	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	–	
20-Pin	PIC16F720 NEW	NR	20	18	MR	3.5 KB 2 Kw	✓	✓	128	–	1.8V-5.5V	16 MHz	16 MHz, 500 kHz	0	–	–	12	–	–	0	1	–	2	1	1	–	1	1	–	–	–	BOR	SW ◊	–	✓	$0.77	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	XLP	20-Pin
	PIC16F721 NEW	NR	20	18	MR	7 KB 4 Kw	✓	✓	256	–	1.8V-5.5V	16 MHz	16 MHz, 500 kHz	0	–	–	12	–	–	0	1	–	2	1	1	–	1	1	–	–	–	BOR	SW ◊	–	✓	$0.84	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	XLP	
	PIC16F631	R	20	18	MR	1.75 KB 1 Kw	✓	–	64	128	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	–	–	2	–	–	1	1	–	–	–	–	–	–	–	BOR	SW ◊	✓	✓	$0.91	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	–	
	PIC16F677	R	20	18	MR	3.5 KB 2 Kw	✓	–	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	12	–	2	–	–	1	1	–	–	1	1	–	–	–	BOR	SW ◊	✓	✓	$0.99	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	–	
	PIC16F1828 NEW	NR	20	18	EMR	7 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	12	–	12	–	2	2	2	4	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$0.99	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	DSM, XLP	
	PIC16F687	R	20	18	MR	3.5 KB 2 Kw	✓	–	128	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	12	–	2	–	–	1	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.07	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	–	
	PIC16F785	R	20	18	MR	3.5 KB 2 Kw	–	–	128	256	2V-15V	20 MHz	8 MHz, 31 kHz	0	Comp	2	–	12	–	2	1	–	2	1	–	–	–	–	–	–	–	BOR	SW ◊	–	✓	$1.12	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	2-phase PWM, 2x Op Amp	
	PIC16F685	R	20	18	MR	7 KB 4 Kw	✓	–	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	12	–	2	–	1	2	1	–	–	–	–	–	–	–	BOR	SW ◊	✓	✓	$1.13	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	–	
	PIC16F689	R	20	18	MR	7 KB 4 Kw	✓	–	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	12	–	2	–	–	1	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.13	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	–	
	PIC16F690	R	20	18	MR	7 KB 4 Kw	✓	–	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	12	–	2	–	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.20	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	–	
	PIC18F13K22 NEW	R	20	18	PIC18	8 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	64 MHz	64 MHz, 31 kHz	0	SR Latch	4	–	12	–	2	–	1	1	3	–	1	1	1	–	–	–	PBOR	SW ◊	✓	–	$1.33	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	XLP	
	PIC18F13K50 NEW	R	20	15	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-5.5V	48 MHz	32 MHz, 31 kHz	0	SR Latch	4	–	9	–	2	–	1	1	3	–	1	1	1	–	1	–	PBOR	SW ◊	✓	–	$1.39	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), XLP	
	PIC18F14K22 NEW	R	20	18	PIC18	16 KB 8 Kw	✓	✓	512	256	1.8V-5.5V	64 MHz	64 MHz, 31 kHz	0	SR Latch	4	–	12	–	2	–	1	1	3	–	1	1	1	–	–	–	PBOR	SW ◊	✓	–	$1.47	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	XLP	
	PIC18F14K50 NEW	R	20	15	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-5.5V	48 MHz	32 MHz, 31 kHz	0	SR Latch	4	–	9	–	2	–	1	1	3	–	1	1	1	–	1	–	PBOR	SW ◊	✓	–	$1.53	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), XLP	
	PIC16F1829 NEW	NR	20	18	EMR	14 KB 8 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	0	CSM	12	–	12	–	2	2	2	4	1	–	1	2	2	–	–	–	BOR	SW ◊	✓	✓	Call for Pricing	PDIP (P), SSOP (SS), SOIC (SO), QFN (ML)	DSM, XLP	
28-Pin	PIC16F57	R	28	20	BL	3 KB 2 Kw	–	–	72	–	2V-5.5V	20 MHz	0	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	$0.52	SPDIP (SP), SOIC (SO), SSOP (SS)	–	28-Pin
	PIC16F722A NEW	R	28	25	MR	3.5 KB 2 Kw	✓	–	128	–	1.8V-5.5V	20 MHz	16 MHz	0	CSM	8	11	–	–	0	2	–	2	1	1	–	1	1	–	–	–	BOR	SW ◊	–	✓	$0.78	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	
	PIC16F723A NEW	R	28	25	MR	7 KB 4 Kw	✓	–	192	–	1.8V-5.5V	20 MHz	16 MHz	0	CSM	8	11	–	–	0	2	–	2	1	1	–	1	1	–	–	–	BOR	SW ◊	–	✓	$0.85	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	
	PIC16F882	R	28	25	MR	3.5 KB 2 Kw	✓	✓	128	128	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	11	–	2	1	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.16	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML)	–	
	PIC16F726 NEW	R	28	25	MR	14 KB 8 Kw	✓	–	368	–	1.8V-5.5V	20 MHz	16 MHz	0	CSM	8	11	–	–	0	2	–	2	1	1	–	1	1	–	–	–	BOR	SW ◊	–	✓	$1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	
	PIC16F1933 NEW	R	28	25	EMR	7 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	60	CSM	8	–	11	–	2	2	3	4	1	–	1	1	1	–	–	–	PBOR	SW ◊	✓	✓	$1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	
	PIC18F23K20 NEW	R	28	25	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	–	–	–	11	–	2	1	1	1	3	–	1	1	1	–	–	–	BOR	✓	–	–	$1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	
	PIC16F1936 NEW	R	28	25	EMR	14 KB 8 Kw	✓	✓	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	60	CSM	8	–	11	–	2	2	3	4	1	–	1	1	1	–	–	–	PBOR	SW ◊	✓	✓	$1.30	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	
	PIC18F24K20 NEW	R	28	25	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	Comp	2	–	11	–	2	1	1	1	3	–	1	1	1	–	–	–	PBOR	✓	–	–	$1.30	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML)	XLP	
	PIC16F883	R	28	25	MR	7 KB 4 Kw	✓	✓	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	11	–	2	1	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.37	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML)	–	

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.

8-bit PIC® Microcontrollers

	Product	Released (R) Not Released (NR)	Pins		Core	Memory					Voltage Range	Operating Speed		LCD Segments	mTouch™		Analog				Digital				Communication						ECAN	Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features	
			Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator		Module	Channels	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™	SPI	Ethernet (MAC/PHY)	FS-USB		BOR/PBOR	PLVD					
28-Pin (Cont.)	PIC16F1938	R	28	25	EMR	28 KB 16 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	60	CSM	8	–	11	–	2	2	3	4	1	–	1	1	1	–	–	–	PBOR	SW ◊	✓	✓	$1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	28-Pin (Cont.)
	PIC18F25K20	R	28	25	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	Comp	2	–	11	–	2	1	1	1	3	–	1	1	1	–	–	–	PBOR	✓	–	–	$1.37	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML)	XLP	
	PIC18F23K22	R	28	25	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	17	–	17	–	2	1	1	1	3	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$1.41	SPDIP (SP), SOIC (SO), SSOP (SS), 6x6 QFN (ML), 4x4 UQFN (MV)	XLP	
	PIC18F24J10	R	28	21	PIC18	16 KB 8 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	32 kHz	0	–	–	–	10	–	2	2	–	1	2	–	1	1	1	–	–	–	BOR	–	–	–	$1.44	SPDIP (SP), SOIC (SO), QFN (ML)	–	
	PIC18F24K22	R	28	25	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	17	–	17	–	2	1	1	1	3	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$1.48	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML), 4x4 UQFN(MV)	XLP	
	PIC16F886	R	28	25	MR	14 KB 8 Kw	✓	✓	368	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	11	–	2	1	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.49	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML)	–	
	PIC18F25J10	R	28	21	PIC18	32 KB 16 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	32 kHz	0	–	–	–	10	–	2	2	–	1	2	–	1	1	1	–	–	–	BOR	–	–	–	$1.58	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	–	
	PIC18F25K22	R	28	25	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	17	–	17	–	2	2	3	3	4	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$1.62	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML)	XLP	
	PIC18F24J11	R	28	21	PIC18	16 KB 8 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	10	–	2	–	2	2	3	–	2	2	2	–	–	–	BOR	SW ◊	–	–	$1.65	SPDIP (SP), SOIC (SO), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP	
	PIC18F26K20	R	28	25	PIC18	64 KB 32 Kw	✓	✓	3936	1024	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	Comp	2	–	11	–	2	1	1	1	3	–	1	1	1	–	–	–	PBOR	✓	–	–	$1.65	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML)	XLP	
	PIC18F25J11	R	28	21	PIC18	32 KB 16 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	10	–	2	–	2	2	3	–	2	2	2	–	–	–	BOR	SW ◊	–	–	$1.79	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP	
	PIC18F24J50	R	28	22	PIC18	16 KB 8 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	10	–	2	–	2	2	3	–	2	2	2	–	1	–	BOR	SW ◊	–	–	$1.86	SPDIP (SP), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP	
	PIC18F26K22	R	28	25	PIC18	64 KB 32 Kw	✓	✓	3896	1024	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	17	–	17	–	2	2	3	3	4	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$1.92	SPDIP (SP), SSOP (SS), SOIC (SO), 6x6 QFN (ML)	XLP	
	PIC18F25K80	NR	28	24	PIC18	32 KB 16 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	CTMU	8	–	–	8	2	4	1	2	3	–	2	1	1	–	–	1	PBOR	✓	–	–	$1.93	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
	PIC18F25J50	R	28	22	PIC18	32 KB 16 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	10	–	2	–	2	2	3	–	2	2	2	–	1	–	BOR	SW ◊	–	–	$2.00	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP	
	PIC18F26J11	R	28	21	PIC18	64 KB 32 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	10	–	2	–	2	2	3	–	2	2	2	–	–	–	BOR	SW ◊	–	–	$2.07	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP	
	PIC18F26K80	NR	28	24	PIC18	64 KB 32 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	CTMU	8	–	–	8	2	4	1	2	3	–	2	1	1	–	–	1	PBOR	✓	–	–	$2.21	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
	PIC18F2450	R	28	23	PIC18	16 KB 8 Kw	✓	✓	768	–	2V-5.5V	48 MHz	32 kHz	0	–	–	–	10	–	0	1	–	1	2	–	1	–	–	–	1	–	PBOR	SW ◊	–	–	$2.23	SPDIP (SP), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed)	
	PIC18F26J13	R	28	23	PIC18	64 KB 32 Kw	✓	✓	3808	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	–	10	3	7	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.24	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	SPI w/DMA, XLP	
	PIC18F26J50	R	28	22	PIC18	64 KB 32 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	10	–	2	–	2	2	3	–	2	2	2	–	1	–	BOR	SW ◊	–	–	$2.28	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP	
	PIC18F26J53	R	28	22	PIC18	64 KB 32 Kw	✓	✓	3808	–	2V- 3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	–	10	3	7	3	4	4	–	2	2	2	–	1	–	BOR	✓	–	–	$2.45	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), SPI w/DMA, XLP	
	PIC18F27J13	R	28	23	PIC18	128 KB 64 Kw	✓	✓	3808	–	2V- 3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	–	10	3	7	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.48	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	SPI w/DMA, XLP	
	PIC18F27J53	R	28	22	PIC18	128 KB 64 Kw	✓	✓	3808	–	2V- 3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	10	–	–	10	3	7	3	4	4	–	2	2	2	–	1	–	BOR	✓	–	–	$2.69	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	USB 2.0 (Full Speed), SPI w/DMA, XLP	
	PIC18F2550	R	28	24	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	–	–	–	10	–	2	2	–	1	3	–	1	1	1	–	1	–	PBOR	SW ◊	–	–	$3.44	PDIP (P), SPDIP(SP), SOIC (SO)	USB 2.0 (Full Speed)	
	PIC18F2553	R	28	24	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	–	–	–	–	10	2	2	–	1	3	–	1	1	1	–	1	–	PBOR	SW ◊	–	–	$4.12	SPDIP(SP), SOIC (SO)	USB 2.0 (Full Speed)	
40/44-Pin	PIC16F59	R	40	32	BL	3 KB 2 Kw	–	–	134	–	2V-5.5V	20 MHz	0	0	–	–	–	–	–	0	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	$0.85	PDIP (P), TQFP (PT)	–	40/44-Pin
	PIC16F724	R	40	36	MR	7 KB 4 Kw	✓	–	192	–	1.8V-5.5V	20 MHz	16 MHz	0	CSM	16	14	–	–	0	2	–	2	1	1	–	1	1	–	–	–	BOR	SW ◊	–	✓	$1.40	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP	
	PIC16F1934	R	40	36	EMR	7 KB 4 Kw	✓	✓	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	CSM	16	–	14	–	2	2	3	4	1	–	1	1	1	–	–	–	PBOR	SW ◊	✓	✓	$1.47	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP	
	PIC18F43K20	R	40	36	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	Comp	2	–	14	–	2	1	1	1	3	–	1	1	1	–	–	–	BOR	✓	–	–	$1.47	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP	
	PIC16F727	R	40	36	MR	14 KB 8 Kw	✓	–	368	–	1.8V-5.5V	20 MHz	16 MHz	0	CSM	16	14	–	–	0	2	–	2	1	1	–	1	1	–	–	–	BOR	SW ◊	–	✓	$1.54	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP	

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8-bit PIC® Microcontrollers

Product	Released (R) Not Released (NR)	Pins		Core	Memory					Voltage Range	Operating Speed		LCD Segments	mTouch™		Analog				Digital				Communication							ECAN	Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
		Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator		Module	Channels	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™	SPI	Ethernet (MAC/PHY)	FS-USB		BOR/PBOR	PLVD					
40/44-Pin (Cont.)																																				40/44-Pin (Cont.)
PIC16F1937	R	40	36	EMR	14 KB 8 Kw	✓	✓	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	CSM	16	–	14	–	2	2	3	4	1	–	1	1	1	–	–	–	PBOR	SW ◊	✓	✓	$1.54	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP
PIC18F44K20	R	40	36	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	Comp	2	–	14	–	2	1	1	1	3	–	1	1	1	–	–	–	PBOR	✓	–	–	$1.54	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP
PIC16F1939	R	40	36	EMR	28 KB 16 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	96	CSM	16	–	14	–	2	2	3	4	1	–	1	1	1	–	–	–	PBOR	SW ◊	✓	✓	$1.61	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP
PIC18F45K20	R	40	36	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	Comp	2	–	14	–	2	1	1	1	3	–	1	1	1	–	–	–	PBOR	✓	–	–	$1.61	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP
PIC16F884	R	40	36	MR	7 KB 4 Kw	✓	✓	256	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	14	–	2	1	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.63	PDIP (P), TQFP (PT), 8x8 QFN (ML)	–
PIC18F44J10	R	40	32	PIC18	16 KB 8 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	13	–	2	1	1	1	2	–	1	2	2	–	–	–	BOR	–	–	–	$1.67	PDIP (P), TQFP (PT), QFN (ML)	–
PIC18F43K22	R	40	36	PIC18	8 KB 4 Kw	✓	✓	512	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	28	–	28	–	2	1	1	1	3	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$1.68	PDIP (P), TQFP (PT), 8x8 QFN (ML) 5x5 UQFN (MV)	XLP
PIC18F44K22	R	40	36	PIC18	16 KB 8 Kw	✓	✓	768	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	28	–	28	–	2	1	1	1	3	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$1.75	PDIP (P), TQFP (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP
PIC16F887	R	40	36	MR	14 KB 8 Kw	✓	✓	368	256	2V-5.5V	20 MHz	8 MHz, 31 kHz	0	SR Latch	4	–	14	–	2	1	1	2	1	–	1	1	1	–	–	–	BOR	SW ◊	✓	✓	$1.78	PDIP (P), TQFP (PT), 8x8 QFN (ML)	–
PIC18F45J10	R	40	32	PIC18	32 KB 16 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	13	–	2	1	1	1	2	–	1	2	2	–	–	–	BOR	–	–	–	$1.81	PDIP (P), TQFP (PT), QFN (ML)	–
PIC18F46K20	R	40	36	PIC18	64 KB 32 Kw	✓	✓	3936	1024	1.8V-3.6V	64 MHz	16 MHz, 31 kHz	0	Comp	2	–	14	–	2	1	1	1	3	–	1	1	1	–	–	–	PBOR	✓	–	–	$1.82	PDIP (P), TQFP (PT), 8x8 QFN (ML)	XLP
PIC18F45K22	R	40	36	PIC18	32 KB 16 Kw	✓	✓	1536	256	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	28	–	28	–	2	2	2	3	4	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$1.89	PDIP (P), TQFP (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP
PIC18F44J11	R	40	34	PIC18	16 KB 8 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	13	–	2	–	2	2	3	–	2	2	2	–	–	–	BOR	SW ◊	–	–	$1.95	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F45J11	R	40	34	PIC18	32 KB 16 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	13	–	2	–	2	2	3	–	2	2	2	–	–	–	BOR	SW ◊	–	–	$2.09	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F44J50	R	40	34	PIC18	16 KB 8 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	13	–	2	–	2	2	3	–	2	2	2	–	1	–	BOR	SW ◊	–	–	$2.16	TQFP (PT), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F45K80	NR	40/44	35	PIC18	32 KB 16 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	CTMU	11	–	–	15	2	4	1	2	3	–	2	1	1	–	–	1	PBOR	✓	✓	✓	$2.17	PDIP (P), TQFP (PT), QFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP
PIC18F46K22	R	40	36	PIC18	64 KB 32 Kw	✓	✓	3896	1024	1.8V-5.5V	64 MHz	16 MHz, 31 kHz	0	CTMU	28	–	28	–	2	2	2	3	4	–	2	2	2	–	–	–	PBOR	✓	✓	✓	$2.17	PDIP (P), TQFP (PT), 8x8 QFN (ML), 5x5 UQFN (MV)	XLP
PIC18F45J50	R	40	34	PIC18	32 KB 16 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	13	–	2	–	2	2	3	–	2	2	2	–	1	–	BOR	SW ◊	–	–	$2.30	TQFP (PT), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F46J11	R	40	34	PIC18	64 KB 32 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	13	–	2	–	2	2	3	–	2	2	2	–	–	–	BOR	SW ◊	–	–	$2.37	PDIP (P), TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F4450	R	40	34	PIC18	16 KB 8 Kw	✓	✓	768	–	2V-5.5V	48 MHz	31 kHz	0	–	–	–	13	–	0	1	–	1	2	–	1	–	–	–	1	–	PBOR	SW ◊	–	–	$2.39	PDIP (P), TQFP (PT), QFN (ML)	USB 2.0 (Full Speed)
PIC18F46K80	NR	40/44	35	PIC18	64 KB 32 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	CTMU	11	–	–	15	2	4	1	2	3	–	2	1	1	–	–	1	PBOR	✓	–	–	$2.45	PDIP (P), TQFP (PT), QFN (ML)	CAN 2.0, CTMU, Deep Sleep Mode, XLP
PIC18F46J13	R	44	34	PIC18	64 KB 32 Kw	✓	✓	3808	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	–	13	3	7	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.52	TQFP (PT), QFN (ML)	SPI w/DMA, XLP
PIC18F46J50	R	40	34	PIC18	64 KB 32 Kw	✓	✓	3800	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	13	–	2	–	2	2	3	–	2	2	2	–	1	–	BOR	SW ◊	–	–	$2.58	PDIP (P), TQFP (PT), QFN (ML)	USB 2.0 (Full Speed), Peripheral Pin Select, Deep Sleep Mode, XLP
PIC18F46J53	R	44	33	PIC18	64 KB 32 Kw	✓	✓	3808	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	–	13	3	7	3	4	4	–	2	2	2	–	1	–	BOR	✓	–	–	$2.73	TQFP (PT), QFN (ML)	Integrated LCD Driver, SPI w/DMA, XLP
PIC18F47J13	R	44	34	PIC18	128 KB 64 Kw	✓	✓	3808	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	–	13	3	7	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.76	TQFP (PT), QFN (ML)	SPI w/DMA, XLP
PIC18F47J53	R	44	33	PIC18	128 KB 64 Kw	✓	✓	3808	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	CTMU	13	–	–	13	3	7	3	4	4	–	2	2	2	–	1	–	BOR	✓	–	–	$2.97	TQFP (PT), QFN (ML)	Integrated LCD Driver, SPI w/DMA, XLP
PIC18F4550	R	40	35	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	–	–	–	13	–	2	1	1	1	3	–	1	1	1	–	1	–	PBOR	SW ◊	–	–	$3.65	PDIP (P), TQFP (PT), QFN (ML)	USB 2.0 (Full Speed)
PIC18F4523	R	40	36	PIC18	32 KB 16 Kw	✓	✓	1536	256	2V-5.5V	40 MHz	8 MHz, 31 kHz	0	–	–	–	–	13	2	1	1	1	3	–	1	1	1	–	–	–	PBOR	SW ◊	–	–	$3.67	PDIP (P), TQFP (PT), QFN (ML)	–
PIC18F4553	R	40	35	PIC18	32 KB 16 Kw	✓	✓	2048	256	2V-5.5V	48 MHz	8 MHz, 31 kHz	0	–	–	–	–	13	2	1	1	1	3	–	1	1	1	–	1	–	PBOR	SW ◊	–	–	$4.33	PDIP (P), TQFP (PT), QFN (ML)	USB 2.0 (Full Speed)

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.

8-bit PIC® Microcontrollers

	Product	Released (R) Not Released (NR)	Pins		Core	Memory					Voltage Range	Operating Speed		LCD Segments	mTouch™		Analog				Digital				Communication						ECAN	Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator		Module	Channels	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™	SPI	Ethernet (MAC/PHY)	FS-USB		BOR/PBOR	PLVD					
64-Pin	PIC16F1946	R	64	53	EMR	14 KB 8 Kw	✓	✓	512	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	184	CSM	17	–	17	–	3	2	3	4	1	–	2	2	2	–	–	–	BOR	SW ◊	✓	✓	$1.75	TQFP (PT), QFN (MR)	XLP	64-Pin
	PIC16F1947	R	64	53	EMR	28 KB 16 Kw	✓	✓	1024	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	184	CSM	17	–	17	–	3	2	3	4	1	–	2	2	2	–	–	–	BOR	SW ◊	✓	✓	$1.82	TQFP (PT), QFN (MR)	XLP	
	PIC18F63J11	R	64	54	PIC18	8 KB 4 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	PBOR	SW ◊	–	–	$2.20	TQFP (PT)	–	
	PIC18F65J10	R	64	50	PIC18	32 KB 16 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	11	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.25	TQFP (PT)	–	
	PIC18F64J11	R	64	54	PIC18	16 KB 8 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	SW ◊	–	–	$2.27	TQFP (PT)	–	
	PIC18F63J90	R	64	51	PIC18	8 KB 4 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.35	TQFP (PT)	Integrated LCD Driver	
	PIC18F65J11	R	64	54	PIC18	32 KB 16 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	SW ◊	–	–	$2.37	TQFP (PT)	–	
	PIC18F65K22	R	64	53	PIC18	32 KB 16 Kw	✓	✓	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	0	CTMU	16	–	–	16	3	5	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.39	QFN (MR), TQFP (PT)	XLP	
	PIC18F64J90	R	64	51	PIC18	16 KB 8 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.41	TQFP (PT)	Integrated LCD Driver	
	PIC18F66J10	R	64	50	PIC18	64 KB 32 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	11	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.49	TQFP (PT)	–	
	PIC18F65J90	R	64	50	PIC18	32 KB 16 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	132	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.52	TQFP (PT)	Integrated LCD Driver	
	PIC18F65K90	R	64	53	PIC18	32 KB 16 Kw	✓	✓	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	CTMU	16	–	–	16	3	5	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.53	QFN (MR), TQFP (PT)	Integrated LCD Driver, XLP	
	PIC18F65J50	R	64	49	PIC18	32 KB 16 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	8	–	2	2	3	2	3	–	2	2	2	–	1	–	BOR	✓	–	–	$2.63	TQFP (PT)	USB 2.0 (Full Speed)	
	PIC18F66J11	R	64	50	PIC18	64 KB 32 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	11	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.63	TQFP (PT)	–	
	PIC18F66J90/3	R	64	51	PIC18	64 KB 32 Kw	✓	✓	3900	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	132	CTMU	12	–	12	12	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.70	TQFP (PT)	Integrated LCD Driver, RTCC	
	PIC18F65K80	NR	64	54	PIC18	32 KB 16 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	CTMU	11	–	–	15	2	4	1	2	3	–	2	1	1	–	–	1	PBOR	✓	–	–	$2.70	TQFP (PT), QFN (MR)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
	PIC18F66K22	R	64	53	PIC18	64 KB 32 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	0	CTMU	16	–	–	16	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$2.70	QFN (MR), TQFP (PT)	XLP	
	PIC18F67J10	R	64	50	PIC18	128 KB 64 Kw	✓	✓	3936	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	11	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.77	TQFP (PT)	–	
	PIC18F66K90	R	64	53	PIC18	64 KB 32 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	CTMU	16	–	–	16	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$2.84	QFN (MR), TQFP (PT)	Integrated LCD Driver, XLP	
	PIC18F66J50	R	64	49	PIC18	64 KB 32 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	8	–	2	2	3	2	3	–	2	2	2	–	1	–	BOR	✓	–	–	$2.90	TQFP (PT)	USB 2.0 (Full Speed)	
	PIC18F67J11	R	64	50	PIC18	128 KB 64 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	11	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.93	TQFP (PT)	–	
	PIC18F67K22	R	64	53	PIC18	128 KB 64 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	0	CTMU	16	–	–	16	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$2.94	QFN (MR), TQFP (PT)	XLP	
	PIC18F66K80	NR	64	54	PIC18	64 KB 32 Kw	✓	✓	3648	1024	1.8V-5.5V	64 MHz	8 MHz, 31 kHz	0	CTMU	11	–	–	15	2	4	1	2	3	–	2	1	1	–	–	1	PBOR	✓	–	–	$2.98	TQFP (PT), QFN (MR)	CAN 2.0, CTMU, Deep Sleep Mode, XLP	
	PIC18F67J90/3	R	64	51	PIC18	128 KB 64 Kw	✓	✓	3900	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	132	CTMU	12	–	12	12	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$3.00	TQFP (PT)	Integrated LCD Driver, RTCC	
	PIC18F67K90	R	64	53	PIC18	128 KB 64 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	CTMU	16	–	–	16	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$3.08	QFN (MR), TQFP (PT)	Integrated LCD Driver, XLP	
	PIC18F67J50	R	64	49	PIC18	128 KB 64 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	8	–	2	2	3	2	3	–	2	2	2	–	1	–	BOR	✓	–	–	$3.19	TQFP (PT)	USB 2.0 (Full Speed)	
	PIC18F6493	R	64	50	PIC18	16 KB 8 Kw	✓	–	768	–	2V-5.5V	32 MHz	8 MHz, 31 kHz	132	–	–	–	–	12	2	2	–	1	3	1	1	1	1	–	–	–	PBOR	SW ◊	–	–	$3.29	TQFP (PT)	Integrated LCD Driver	
	PIC18F66J60	R	64	39	PIC18	64 KB 32 Kw	✓	✓	3808	–	2V-3.6V	42 MHz	31 kHz	0	–	–	–	11	–	2	2	3	2	3	–	1	1	1	–	–	–	BOR	✓	–	–	$3.36	TQFP (PT)	Integrated MAC, 10 Base T PHY	
	PIC18F67J60	R	64	39	PIC18	128 KB 64 Kw	✓	✓	3808	–	2V-3.6V	42 MHz	31 kHz	0	–	–	–	11	–	2	2	3	2	3	–	1	1	1	1	–	–	BOR	✓	–	–	$3.65	TQFP (PT)	Integrated MAC, 10 Base T PHY	
	PIC18F6723	R	64	54	PIC18	128 KB 64 Kw	✓	✓	3936	1024	2V-5.5V	40 MHz	8 MHz, 31 kHz	0	–	–	–	–	12	2	2	3	2	3	–	2	2	2	–	–	–	PBOR	SW ◊	–	–	$7.99	TQFP (PT)	–	

Products sorted by pin count followed by pricing.

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◊ - Software PLVD implemented via ADC.

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	Product	Released (R) Not Released (NR)	Pins		Core	Memory					Voltage Range	Operating Speed		LCD Segments	mTouch™		Analog				Digital				Communication						ECAN	Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features	
			Total	I/O		Program	Self-Read	Self-Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator		Module	Channels	8-bit ADC	10-bit ADC	12-bit ADC	Comparators	CCP	ECCP	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™	SPI	Ethernet (MAC/PHY)	FS-USB		BOR/PBOR	PLVD					
80-Pin	PIC18F83J11	R	80	70	PIC18	8 KB 4 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	SW ◊	–	–	$2.46	TQFP (PT)	–	80-Pin
	PIC18F85J10	R	80	66	PIC18	32 KB 16 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	15	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.49	TQFP (PT)	–	
	PIC18F84J11	R	80	70	PIC18	16 KB 8 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	SW ◊	–	–	$2.52	TQFP (PT)	–	
	PIC18F83J90	R	80	66	PIC18	8 KB 4 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	192	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.60	TQFP (PT)	Integrated LCD Driver	
	PIC18F85J11	R	80	70	PIC18	32 KB 16 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	SW ◊	–	–	$2.63	TQFP (PT)	–	
	PIC18F85K22 XLP	R	80	69	PIC18	32 KB 16 Kw	✓	✓	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz		CTMU	24	–	–	24	3	5	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.66	TQFP (PT)	XLP	
	PIC18F84J90	R	80	66	PIC18	16 KB 8 Kw	✓	✓	1024	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	192	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.67	TQFP (PT)	Integrated LCD Driver	
	PIC18F86J10	R	80	66	PIC18	64 KB 32 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	15	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.74	TQFP (PT)	–	
	PIC18F85J90	R	80	66	PIC18	32 KB 16 Kw	✓	✓	2048	–	2V-3.6V	40 MHz	8 MHz, 31 kHz	192	–	–	–	12	–	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.77	TQFP (PT), LQFP (PL)	Integrated LCD Driver	
	PIC18F85K90 XLP	R	80	69	PIC18	32 KB 16 Kw	✓	✓	2048	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	CTMU	24	–	–	24	3	5	3	4	4	–	2	2	2	–	–	–	BOR	✓	–	–	$2.80	TQFP (PT)	Integrated LCD Driver, XLP	
	PIC18F85J50	R	80	65	PIC18	32 KB 16 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	3	2	3	–	2	2	2	–	1	–	BOR	✓	–	–	$2.90	TQFP (PT)	USB 2.0 (Full Speed)	
	PIC18F86J11	R	80	66	PIC18	64 KB 32 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	15	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$2.90	TQFP (PT)	–	
	PIC18F86J90/3	R	80	67	PIC18	64 KB 32 Kw	✓	✓	3900	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	192	CTMU	12	–	12	12	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$2.97	TQFP (PT)	Integrated LCD Driver, RTCC	
	PIC18F86K22 XLP	R	80	69	PIC18	64 KB 32 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz		CTMU	24	–	–	24	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$2.97	TQFP (PT)	XLP	
	PIC18F87J10	R	80	66	PIC18	128 KB 64 Kw	✓	✓	3936	–	2V-3.6V	40 MHz	31 kHz	0	–	–	–	15	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$3.02	TQFP (PT), LQFP (PL)	–	
	PIC18F86K90 XLP	R	80	69	PIC18	64 KB 32 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	CTMU	24	–	–	24	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$3.11	TQFP (PT)	Integrated LCD Driver, XLP	
	PIC18F86J50	R	80	65	PIC18	64 KB 32 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	3	2	3	–	2	2	2	–	1	–	BOR	✓	–	–	$3.15	TQFP (PT)	USB 2.0 (Full Speed)	
	PIC18F87J11	R	80	66	PIC18	128 KB 64 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	15	–	2	2	3	2	3	–	2	2	2	–	–	–	BOR	✓	–	–	$3.19	TQFP (PT)	–	
	PIC18F87K22 XLP	R	80	69	PIC18	128 KB 64 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz		CTMU	24	–	–	24	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$3.21	TQFP (PT)	XLP	
	PIC18F87J90/3	R	80	67	PIC18	128 KB 64 Kw	✓	✓	3900	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	192	CTMU	12	–	12	12	2	2	–	1	3	1	1	1	1	–	–	–	BOR	✓	–	–	$3.26	TQFP (PT)	Integrated LCD Driver, RTCC	
	PIC18F87K90 XLP	NR	80	69	PIC18	128 KB 64 Kw	✓	✓	4096	1024	1.8V-5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	CTMU	24	–	–	24	3	7	3	6	5	–	2	2	2	–	–	–	BOR	✓	–	–	$3.35	TQFP (PT)	Integrated LCD Driver, XLP	
	PIC18F87J50	R	80	65	PIC18	128 KB 64 Kw	✓	✓	3904	–	2V-3.6V	48 MHz	8 MHz, 31 kHz	0	–	–	–	12	–	2	2	3	2	3	–	2	2	2	–	1	–	BOR	✓	–	–	$3.44	TQFP (PT)	USB 2.0 (Full Speed)	
	PIC18F86J60	R	80	55	PIC18	64 KB 32 Kw	✓	✓	3808	–	2V-3.6V	42 MHz	31 kHz	0	–	–	–	15	–	2	2	3	2	3	–	2	1	1	1	–	–	BOR	✓	–	–	$3.63	TQFP (PT)	Integrated MAC, 10 Base T PHY	
	PIC18F8493	R	80	66	PIC18	16 KB 8 Kw	✓	–	768	–	2V-5.5V	32 MHz	8 MHz, 31 kHz	192	–	–	–	–	12	2	2	–	1	3	1	1	1	1	–	–	–	PBOR	SW ◊	–	–	$3.78	TQFP (PT)	Integrated LCD Driver	
	PIC18F87J60	R	80	55	PIC18	128 KB 64 Kw	✓	✓	3808	–	2V-3.6V	42 MHz	32 kHz, 31 kHz	0	–	–	–	15	–	2	2	3	2	3	–	2	1	1	1	–	–	BOR	✓	–	–	$3.92	TQFP (PT)	Integrated MAC, 10 Base T PHY	
	PIC18F8723	R	80	70	PIC18	128 KB 64 Kw	✓	✓	3936	1024	2V-5.5V	40 MHz	8 MHz, 31 kHz	0	–	–	–	–	16	2	2	3	2	3	–	2	2	2	–	–	–	PBOR	SW ◊	–	–	$8.44	TQFP (PT)	–	
100-Pin	PIC18F96J60	R	100	70	PIC18	64 KB 32 Kw	✓	✓	3808	–	2V-3.6V	42 MHz	31 kHz	0	–	–	–	16	–	2	2	3	2	3	–	2	2	2	1	–	–	BOR	✓	–	–	$3.84	TQFP (PT)	Integrated MAC, 10 Base T PHY	100-Pin
	PIC18F97J60	R	100	70	PIC18	128 KB 64 Kw	✓	✓	3808	–	2V-3.6V	42 MHz	31 kHz	0	–	–	–	16	–	2	2	3	2	3	–	2	2	2	1	–	–	BOR	✓	–	–	$4.13	TQFP (PT), LQFP (PL)	Integrated MAC, 10 Base T PHY	

Products sorted by pin count followed by pricing.

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

◊ - Software PLVD implemented via ADC.

16 bit PIC® Microcontrollers

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog				Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer[2]	Communication		PMP	RTCC/CRC	PPS	5 ku Pricing†	Monitors	Packages (Designator)	
					Program (KB)	Data RAM (B)	EEPROM	DMA #Ch		Maximum MIPS	Internal Oscillator	Charge Time Measurement Unit	10-bit ADC	10/12-bit ADC 1100/500 KSPS	Comparators					Digital Communication	FS USB OTG					System Mgmt. Features		
14-Pin	PIC24F04KA200	R	12	PIC24	4	512	AN1095[1]	–	1.8V 3.6V	16	8 MHz, 32 kHz	✓	7	–	2	–	1	1	3	1 UART, 1 SPI, 1 I²C	–	–	–	–	$1.16	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP),TSSOP (ST)	14-Pin
20-Pin	PIC24F04KA201	R	18	PIC24	4	512	AN1095[1]	–	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	–	2	–	1	1	3	1 UART, 1 SPI, 1 I²C	–	–	–	–	$1.25	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	20-Pin
	PIC24F08KA101	R	18	PIC24	8	1536	512	–	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	–	2	–	1	1	3	2 UART, 1 SPI, 1 I²C	–	–	✓	–	$1.44	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	
	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 I²C	–	–	✓	–	$1.51	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	
28-Pin	PIC24F08KA102	R	24	PIC24	8	1536	512	–	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	–	2	–	1	1	3	2 UART, 1 SPI, 1 I²C	–	–	✓	–	$1.51	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	28-Pin
	PIC24F16KA102	R	24	PIC24	16	1536	512	–	1.8V-3.6V	16	8 MHz, 32 kHz	✓	9	–	2	–	1	1	3	2 UART, 1 SPI, 1 I²C	–	–	✓	–	$1.58	BOR, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	
	PIC24FJ16GA002	R	21	PIC24	16	4096	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	10	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$1.74	BOR, LVD, POR, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	
	PIC24FJ32GA002	R	21	PIC24	32	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	10	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.06	BOR, LVD, POR, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	
	PIC24FJ32GA102	R	21	PIC24	32	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	10	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.23	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	
	PIC24FJ48GA002	R	21	PIC24	48	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	10	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.27	BOR, LVD, POR, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	
	PIC24FJ32GB002	R	21	PIC24	32	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	9	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	✓	✓	✓	✓	$2.44	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	
	PIC24FJ64GA002	R	21	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	10	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.48	BOR, LVD, POR, WDT	SPDIP (SP), SSOP (SS), SOIC (SO), QFN (ML)	
	PIC24FJ64GA102	R	21	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	10	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.65	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	
	PIC24FJ64GB002	R	21	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	9	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	✓	✓	✓	✓	$2.86	BOR, LVD, POR, WDT, Deep Sleep, XLP	SPDIP (SP), SOIC (SO), QFN (ML)	
44-Pin	PIC24FJ16GA004	R	35	PIC24	16	4096	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	13	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$1.93	BOR, LVD, POR, WDT	TQFP (PT), QFN (ML)	44-Pin
	PIC24FJ32GA004	R	35	PIC24	32	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	13	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.30	BOR, LVD, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24FJ32GA104	R	35	PIC24	32	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	13	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.44	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)	
	PIC24FJ48GA004	R	35	PIC24	48	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	13	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.51	BOR, LVD, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24FJ32GB004	R	35	PIC24	32	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	13	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	✓	✓	✓	✓	$2.65	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)	
	PIC24FJ64GA004	R	35	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	13	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.72	BOR, LVD, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24FJ64GA104	R	35	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	13	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.86	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)	
	PIC24FJ64GB004	R	35	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	13	–	3	–	5	5	5	2 UART, 2 SPI, 2 I²C	✓	✓	✓	✓	$3.07	BOR, LVD, POR, WDT, Deep Sleep, XLP	TQFP (PT), QFN (ML)	
64-Pin	PIC24FJ64GA006	R	53	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.05	BOR, POR, WDT	TQFP (PT)	64-Pin
	PIC24FJ96GA006	R	53	PIC24	96	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.16	BOR, POR, WDT	TQFP (PT)	
	PIC24FJ128GA006	R	53	PIC24	128	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.35	BOR, POR, WDT	TQFP (PT)	
	PIC24FJ128GA106	R	53	PIC24	128	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$3.56	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ64GB106	R	52	PIC24	64	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$3.64	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ192GA106	R	53	PIC24	192	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$3.77	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ128GB106	R	52	PIC24	128	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$3.93	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ256GA106	R	53	PIC24	256	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$3.98	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ192GB106	R	52	PIC24	192	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.14	BOR, LVD, POR, WDT	TQFP (PT)	

*Parts available with High Temperature options.

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

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

Products sorted by pin count followed by pricing.

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

◊ - Software PLVD implemented via ADC.

16-bit PIC® Microcontrollers

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog				Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer[2]	Communication		PMP	RTCC/CRC	PPS	5 ku Pricing†	Monitors	Packages (Designator)	
					Program (KB)	Data RAM (B)	EEPROM	DMA #Ch		Maximum MIPS	Internal Oscillator	Charge Time Measurement Unit	10-bit ADC	10/12-bit ADC 1100/500 KSPS	Comparators					Digital Communication	FS USB OTG					System Mgmt. Features		
64-Pin (Cont.)	PIC24FJ128GB206	R	52	PIC24	128	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.30	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)	64-Pin (Cont.)
	PIC24FJ128DA106	R	52	PIC24	128	24576	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	–	✓	✓	$4.34	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24FJ256GB106	R	52	PIC24	256	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.35	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ256GB206	R	52	PIC24	256	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.65	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24FJ256DA106	R	52	PIC24	256	24576	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	–	✓	✓	$4.69	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24FJ128DA206	R	52	PIC24	128	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	–	✓	✓	$4.76	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24FJ256DA206	R	52	PIC24	256	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	–	✓	✓	$5.11	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)	
80-Pin	PIC24FJ64GA008	R	69	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.30	BOR, POR, WDT	TQFP (PT)	80-Pin
	PIC24FJ96GA008	R	69	PIC24	96	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.43	BOR, POR, WDT	TQFP (PT)	
	PIC24FJ128GA008	R	69	PIC24	128	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.60	BOR, POR, WDT	TQFP (PT)	
	PIC24FJ128GA108	R	69	PIC24	128	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$3.82	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ64GB108	R	68	PIC24	64	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$3.91	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ192GA108	R	69	PIC24	192	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$4.03	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ128GB108	R	68	PIC24	128	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.20	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ256GA108	R	69	PIC24	256	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$4.24	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ192GB108	R	68	PIC24	192	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.41	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ256GB108	R	68	PIC24	256	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.62	BOR, LVD, POR, WDT	TQFP (PT)	
100-Pin	PIC24FJ64GA010	R	85	PIC24	64	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.51	BOR, POR, WDT	TQFP (PT)	100-Pin
	PIC24FJ96GA010	R	85	PIC24	96	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.64	BOR, POR, WDT	TQFP (PT)	
	PIC24FJ128GA010	R	85	PIC24	128	8192	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	–	16	–	2	–	5	5	5	2 UART, 2 SPI, 2 I²C	–	✓	✓	–	$3.81	BOR, POR, WDT	TQFP (PT)	
	PIC24FJ128GA110	R	85	PIC24	128	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$4.03	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ64GB110	R	84	PIC24	64	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.12	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ192GA110	R	85	PIC24	192	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$4.24	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ128GB110	R	84	PIC24	128	16384	AN1095[1]	–	2V-3.6V	16	16 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.41	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ256GA110	R	85	PIC24	256	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$4.45	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ192GB110	R	84	PIC24	192	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.62	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ128GB210	R	84	PIC24	128	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.79	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)	
	PIC24FJ128DA110	R	84	PIC24	128	24576	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.83	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)	
	PIC24FJ256GB110	R	84	PIC24	256	16384	AN1095[1]	–	2V-3.6V	16	8 MHz, 32 kHz	✓	16	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$4.83	BOR, LVD, POR, WDT	TQFP (PT)	
	PIC24FJ256GB210	R	84	PIC24	256	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	–	3	–	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$5.14	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)	
	PIC24FJ256DA110	R	84	PIC24	256	24576	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$5.18	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)	
	PIC24FJ128DA210	R	84	PIC24	128	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$5.25	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)	
	PIC24FJ256DA210	R	84	PIC24	256	98304	AN1095[1]	–	2.2V-3.6V	16	8 MHz, 32 kHz	✓	24	–	3	✓	9	9	5	4 UART, 3 SPI, 3 I²C	✓	✓	✓	✓	$5.60	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)	

*Parts available with High Temperature options.

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

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

Products sorted by pin count followed by pricing.

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

◊ - Software PLVD implemented via ADC.

16-bit PIC® Microcontrollers

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog				Output Compare/PWM	Input Capture	16-bit Timer[2]	Communication			PMP	RTCC/CRC	PPS	5 ku Pricing†	Monitors	Packages (Designator)	
					Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum MIPS	Internal Oscillator	Charge Time Measurement Unit	10-bit ADC	10/12-bit ADC 1100/500 KSPS	Comparators				Digital Communication	CAN	FS USB OTG					System Mgmt. Features		
18-Pin	PIC24HJ12GP201	R	13	PIC24	12	1024	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	6 ch	–	2	4	3	1 UART, 1 SPI, 1 I²C	–	–	–	–	✓	$2.09	PBOR, POR, WDT	PDIP (P), SOIC (SO)	18-Pin
28-Pin	PIC24HJ12GP202	R	21	PIC24	12	1024	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	10 ch	–	2	4	3	1 UART, 1 SPI, 1 I²C	–	–	–	–	✓	$2.24	PBOR, POR, WDT	SOIC (SO), SPDIP (SP),QFN (MM), SSOP(SS)	28-Pin
	PIC24HJ32GP202*	R	21	PIC24	32	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	10 ch	–	2	4	3	1 UART, 1 SPI, 1 I²C	–	–	–	–	✓	$2.40	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
	PIC24HJ32GP302	R	21	PIC24	32	4096	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	–	–	✓	✓	✓	$2.76	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
	PIC24HJ64GP202	R	21	PIC24	64	4096	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	–	–	✓	✓	✓	$3.12	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
	PIC24HJ64GP502*	R	21	PIC24	64	4096	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	1	–	✓	✓	✓	$3.33	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
	PIC24HJ128GP202	R	21	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	–	–	✓	✓	✓	$3.44	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
	PIC24HJ128GP502*	R	21	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	10 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	1	–	✓	✓	✓	$3.65	PBOR, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
44-Pin	PIC24HJ16GP304*	R	35	PIC24	16	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	13 ch	–	2	4	3	1 UART, 1 SPI, 1 I²C	–	–	–	–	✓	$2.42	PBOR, POR, WDT	TQFP (PT), QFN (ML)	44-Pin
	PIC24HJ32GP204*	R	35	PIC24	32	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	13 ch	–	2	4	3	1 UART, 1 SPI, 1 I²C	–	–	–	–	✓	$2.49	PBOR, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24HJ32GP304	R	35	PIC24	32	4096	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	–	–	✓	✓	✓	$2.82	PBOR, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24HJ64GP204	R	35	PIC24	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	–	–	✓	✓	✓	$3.29	PBOR, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24HJ64GP504*	R	35	PIC24	64	4096	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	1	–	✓	✓	✓	$3.58	PBOR, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24HJ128GP204	R	35	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	–	–	✓	✓	✓	$3.58	PBOR, POR, WDT	TQFP (PT), QFN (ML)	
	PIC24HJ128GP504*	R	35	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	13 ch	2	4	4	5	2 UART, 2 SPI, 1 I²C	1	–	✓	✓	✓	$3.88	PBOR, POR, WDT	TQFP (PT), QFN (ML)	
64-Pin	PIC24HJ64GP206A	R	53	PIC24	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	18 ch	–	8	8	9	2 UART, 2 SPI, 1 I²C	–	–	–	–	–	$3.39	PBOR, POR, WDT	TQFP (PT), QFN (MR)	64-Pin
	PIC24HJ64GP506A	R	53	PIC24	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	18 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	–	$3.60	PBOR, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24HJ128GP206A	R	53	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	18 ch	–	8	8	9	2 UART, 2 SPI, 1 I²C	–	–	–	–	–	$3.63	PBOR, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24HJ128GP306A	R	53	PIC24	128	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	18 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$3.79	PBOR, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24HJ128GP506A*	R	53	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	18 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	–	$3.85	PBOR, POR, WDT	TQFP (PT), QFN (MR)	
	PIC24HJ256GP206A	R	53	PIC24	256	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	18 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$4.05	PBOR, POR, WDT	TQFP (PT, PF)	
100-Pin	PIC24HJ64GP210A	R	85	PIC24	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	32 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$3.88	PBOR, POR, WDT	TQFP (PT, PF)	100-Pin
	PIC24HJ64GP510A	R	85	PIC24	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	32 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	–	$4.06	PBOR, POR, WDT	TQFP (PT, PF)	
	PIC24HJ128GP210A	R	85	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	32 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$4.14	PBOR, POR, WDT	TQFP (PT, PF)	
	PIC24HJ128GP310A	R	85	PIC24	128	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	32 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$4.26	PBOR, POR, WDT	TQFP (PT, PF)	
	PIC24HJ128GP510A*	R	85	PIC24	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	32 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	–	$4.31	PBOR, POR, WDT	TQFP (PT, PF)	
	PIC24HJ256GP210A	R	85	PIC24	256	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	32 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$4.63	PBOR, POR, WDT	TQFP (PT, PF)	
	PIC24HJ256GP610A	R	85	PIC24	256	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	–	–	2 ADC 32 ch	–	8	8	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	–	$5.08	PBOR, POR, WDT	TQFP (PT, PF)	

*Parts available with High Temperature options.

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

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

Products sorted by pin count followed by pricing.

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

32-bit PIC32 Microcontrollers

	Product	Released (R) Not Released (NR)	Core	Memory: Flash KB + Boot Flash	Memory: Data RAM (KB)	Memory: EEPROM	DMA Channels General/Dedicated	Voltage Range	Operating Speed: Maximum Speed MHz	Operating Speed: Internal Oscillator	Analog: ADC 10-bit 1000 ksps	Analog: Comparators	IC/OC/PWM	Timers 16/32-bit	Communication: SPI	Communication: I²C™	Communication: UARTs	Communication: FS USB OTG	Communication: Ethernet	Communication: CAN	PMP	RTCC	5 ku Pricing†	Monitors: System Mgmt. Features	Packages (Designator)	
64-Pin	PIC32MX320F032H	R	PIC32	32 + 12	8	AN1095(1)	0/0	2.3V-3.6V	40	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$3.09	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	64-Pin
	PIC32MX320F064H	R	PIC32	64 + 12	16	AN1095(1)	0/0	2.3V-3.6V	40	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$3.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX420F032H	R	PIC32	32 + 12	8	AN1095(1)	0/2	2.3V-3.6V	40	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	–	–	✓	1	$3.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX320F064H	R	PIC32	64 + 12	16	AN1095(1)	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$3.51	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX320F128H	R	PIC32	128 + 12	16	AN1095(1)	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$3.75	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX340F128H	R	PIC32	128 + 12	32	AN1095(1)	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$3.96	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX440F128H	R	PIC32	128 + 12	32	AN1095(1)	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	–	–	✓	1	$4.23	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX340F256H	R	PIC32	256 + 12	32	AN1095(1)	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$4.31	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX440F256H	R	PIC32	256 + 12	32	AN1095(1)	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	–	–	✓	1	$4.58	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX340F512H	R	PIC32	512 + 12	32	AN1095(1)	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$4.77	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX575F256H	R	PIC32	256 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	–	1	✓	1	$4.96	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX440F512H	R	PIC32	512 + 12	32	AN1095(1)	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	–	–	✓	1	$5.04	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX675F256H	R	PIC32	256 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	–	✓	1	$5.19	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX575F512H	R	PIC32	512 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	–	1	✓	1	$5.42	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX775F256H	R	PIC32	256 + 12	64	AN1095(1)	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	2	✓	1	$5.42	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX675F512H	R	PIC32	512 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	–	✓	1	$5.66	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX775F512H	R	PIC32	512 + 12	64	AN1095(1)	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	2	✓	1	$5.88	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX695F512H	R	PIC32	512 + 12	128	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	–	✓	1	$6.13	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
	PIC32MX795F512H	R	PIC32	512 + 12	128	AN1095(1)	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	3	4	6	✓	10/100	2	✓	1	$6.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)	
100-Pin	PIC32MX320F128L	R	PIC32	128 + 12	16	AN1095(1)	0/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$4.44	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)	100-Pin
	PIC32MX340F128L	R	PIC32	128 + 12	32	AN1095(1)	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$4.44	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)	
	PIC32MX440F128L	R	PIC32	128 + 12	32	AN1095(1)	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	–	–	✓	1	$4.70	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)	
	PIC32MX360F256L	R	PIC32	256 + 12	32	AN1095(1)	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$4.79	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)	
	PIC32MX460F256L	R	PIC32	256 + 12	32	AN1095(1)	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	–	–	✓	1	$5.05	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)	
	PIC32MX360F512L	R	PIC32	512 + 12	32	AN1095(1)	4/0	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	–	–	–	✓	1	$5.25	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)	
	PIC32MX575F256L	R	PIC32	256 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	–	1	✓	1	$5.43	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	
	PIC32MX460F512L	R	PIC32	512 + 12	32	AN1095(1)	4/2	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	2	2	2	✓	–	–	✓	1	$5.52	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)	
	PIC32MX675F256L	R	PIC32	256 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	–	✓	1	$5.67	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	
	PIC32MX575F512L	R	PIC32	512 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	–	1	✓	1	$5.89	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	
	PIC32MX775F256L	R	PIC32	256 + 12	64	AN1095(1)	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	2	✓	1	$5.89	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	
	PIC32MX675F512L	R	PIC32	512 + 12	64	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	–	✓	1	$6.13	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	
	PIC32MX775F512L	R	PIC32	512 + 12	64	AN1095(1)	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	2	✓	1	$6.36	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	
	PIC32MX695F512L	R	PIC32	512 + 12	128	AN1095(1)	8/4	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	–	✓	1	$6.61	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	
	PIC32MX795F512L	R	PIC32	512 + 12	128	AN1095(1)	8/8	2.3V-3.6V	80	8 MHz, 32 kHz	16 ch	2	5/5/5	5/1	4	5	6	✓	10/100	2	✓	1	$6.83	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)	

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.

dsPIC33 DSC General Purpose Family

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Codec (I²S, AC97)	16-bit Timer(2)	Communication		PMP	RTCC/CRC	PPS	5 ku Pricing†	Monitors	Packages (Designator)	
					Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	ADC 10/12-bit 1100/500 ksps	DAC	Comparators					Digital Communication	CAN					System Mgmt. Features		
18-Pin	dsPIC33FJ12GP201	R	13	dsPIC®	12	1024	AN1095(1)	–	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	–	2	4	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.09	PBOR, POR, WDT	PDIP (P), SOIC (SO)	18-Pin
28-hPin	dsPIC33FJ12GP202	R	21	dsPIC	12	1024	AN1095(1)	–	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	–	–	2	4	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.24	PBOR, POR, WDT	QFN (MM), SOIC(SO), SPDIP (SP), SSOP (SS)	28-hPin
	dsPIC33FJ32GP202	R	21	dsPIC	32	2048	AN1095(1)	–	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	–	–	2	4	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.56	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ32GP302	R	21	dsPIC	32	4096	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	–	2	4	4	–	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	$2.76	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ64GP202	R	21	dsPIC	64	8192	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	–	2	4	4	1	5	2 UART, 2 SPI, 1 I²C	–	✓	–	✓	$3.12	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ64GP802*	R	21	dsPIC	64	16384	AN1095(1)	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 I²C	1	✓	✓	✓	$3.42	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ128GP202	R	21	dsPIC	128	8192	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	10 ch	–	2	4	4	1	5	2 UART, 2 SPI, 1 I²C	–	✓	✓	✓	$3.44	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ128GP802	R	21	dsPIC	128	16384	AN1095(1)	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 I²C	1	✓	✓	✓	$3.72	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
44-Pin	dsPIC33FJ16GP304	R	35	dsPIC	16	2048	AN1095(1)	–	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	–	–	2	4	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.58	BOR, POR, WDT	QFN (ML), TQFP (PT)	44-Pin
	dsPIC33FJ32GP204	R	35	dsPIC	32	2048	AN1095(1)	–	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	–	–	2	4	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.66	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ32GP304	R	35	dsPIC	32	4096	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	–	2	4	4	1	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	$3.01	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ64GP204	R	35	dsPIC	64	8192	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	–	2	4	4	1	5	2 UART, 2 SPI, 1 I²C	–	✓	–	✓	$3.29	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ128GP204	R	35	dsPIC	128	8192	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	13 ch	–	2	4	4	1	5	2 UART, 2 SPI, 1 I²C	–	✓	✓	✓	$3.58	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ64GP804	R	35	dsPIC	64	16384	AN1095(1)	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 I²C	1	✓	✓	✓	$3.65	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ128GP804	R	35	dsPIC	128	16384	AN1095(1)	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 I²C	1	✓	✓	✓	$3.96	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
64-Pin	dsPIC33FJ64GP206A	R	53	dsPIC	64	8192	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	–	–	8	8	1	9	2 UART, 2 SPI, 1 I²C	–	–	–	–	$3.39	PBOR, POR, WDT	QFN (MR), TQFP (PT)	64-Pin
	dsPIC33FJ64GP306A	R	53	dsPIC	64	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	$3.53	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ128GP206A	R	53	dsPIC	128	8192	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	–	–	8	8	1	9	2 UART, 2 SPI, 1 I²C	–	–	–	–	$3.63	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ128GP306A	R	53	dsPIC	128	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	$3.79	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ64GP706A	R	53	dsPIC	64	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch 2 ADC	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$4.14	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ256GP506A	R	53	dsPIC	256	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.20	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ128GP706A	R	53	dsPIC	128	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch 2 ADC	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$4.40	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
80-Pin	dsPIC33FJ64GP708A	R	69	dsPIC	64	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$4.44	PBOR, POR, WDT	TQFP (PT)	80-Pin
	dsPIC33FJ128GP708A	R	69	dsPIC	128	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$4.69	PBOR, POR, WDT	TQFP (PT)	
100-Pin	dsPIC33FJ64GP310A	R	85	dsPIC	64	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	$3.99	PBOR, POR, WDT	TQFP (PT, PF)	100-Pin
	dsPIC33FJ128GP310A	R	85	dsPIC	128	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	$4.26	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ64GP710A	R	85	dsPIC	64	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch 2 ADC	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$4.61	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ256GP510A	R	85	dsPIC	256	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.66	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ128GP710A	R	85	dsPIC	128	16384	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch 2ADC	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$4.86	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ256GP710A	R	85	dsPIC	256	30720	AN1095(1)	8	3V-3.6V	40	7.37 MHz, 32 kHz	32 ch 2 ADC	–	–	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$5.32	PBOR, POR, WDT	TQFP (PT, PF)	

*Parts available with High Temperature options.

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

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

Products sorted by pin count followed by pricing.

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

dsPIC33 DSC Motor Control and Power Conversion Family

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Motor Control PWM Ch	QEI	16-bit Timer[2]	Communication		PMP	RTCC/CRC	PPS	5 ku Pricing†	Monitors	Packages (Designator)	
					Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	ADC 10/12-bit 1100/500 ksps	DAC	Comparators						Digital Communication	CAN					System Mgmt. Features		
20-Pin	dsPIC33FJ12MC201	R	15	dsPIC®	12	1024	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	4 ch	–	–	2	4	8	1	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.09	PBOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS)	20-Pin
28-hPin	dsPIC33FJ12MC202	R	21	dsPIC	12	1024	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	–	2	4	6+2	1	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.31	PBOR, POR, WDT	QFN (MM), SOIC(SO), SPDIP (SP), SSOP (SS)	28-hPin
	dsPIC33FJ32MC202*	R	21	dsPIC	32	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	–	2	4	6+2	1	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.63	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ32MC302	R	21	dsPIC	32	4096	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	–	✓	–	✓	$2.87	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ64MC202	R	21	dsPIC	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	–	✓	✓	✓	$3.29	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ64MC802*	R	21	dsPIC	64	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	1	✓	✓	✓	$3.50	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ128MC202	R	21	dsPIC	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	–	✓	✓	✓	$3.57	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ128MC802*	R	21	dsPIC	128	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	1	✓	✓	✓	$3.82	PBOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
44-Pin	dsPIC33FJ16MC304*	R	35	dsPIC	16	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	–	–	2	4	6+2	1	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.65	BOR, POR, WDT	QFN (ML), TQFP (PT)	44-Pin
	dsPIC33FJ32MC204*	R	35	dsPIC	32	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	–	–	2	4	6+2	1	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.76	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ32MC304	R	35	dsPIC	32	4096	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	–	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	–	✓	–	✓	$3.12	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ64MC204	R	35	dsPIC	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	–	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	–	✓	✓	✓	$3.39	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ128MC204	R	35	dsPIC	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	–	2	4	4	8	2	5	2 UART, 2 SPI, 1 I²C	–	✓	✓	✓	$3.68	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ64MC804*	R	35	dsPIC	64	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	2 x 16-bit @ 100 (ksps)	2	4	4	6+2	2	5	2 UART, 2 SPI, 1 I²C	1	✓	✓	✓	$3.89	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
	dsPIC33FJ128MC804*	R	35	dsPIC	128	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	9 ch	2 x 16-bit @ 100 (ksps)	2	4	4	8	2	5	2 UART, 2 SPI, 1 I²C	1	✓	✓	✓	$4.23	PBOR, POR, WDT	QFN (ML), TQFP (PT)	
64-Pin	dsPIC33FJ64MC506A	R	53	dsPIC	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$3.84	PBOR, POR, WDT	QFN (MR), TQFP (PT)	64-Pin
	dsPIC33FJ128MC506A*	R	53	dsPIC	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.10	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ64MC706A	R	53	dsPIC	64	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch 2 ADC	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.21	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ128MC706A*	R	53	dsPIC	128	16384	AN1095[1]	8	3V-3.3V	40	7.37 MHz, 32 kHz	16 ch 2 ADC	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.49	PBOR, POR, WDT	QFN (MR), TQFP (PT)	
80-Pin	dsPIC33FJ64MC508A	R	69	dsPIC	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.14	PBOR, POR, WDT	TQFP (PT)	80-Pin
	dsPIC33FJ128MC708A	R	69	dsPIC	128	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	18 ch 2 ADC	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$5.00	PBOR, POR, WDT	TQFP (PT)	
100-Pin	dsPIC33FJ64MC510A	R	85	dsPIC	64	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.33	PBOR, POR, WDT	TQFP (PT, PF)	100-Pin
	dsPIC33FJ128MC510A	R	85	dsPIC	128	8192	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.59	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ64MC710A	R	85	dsPIC	64	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$4.91	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ256MC510A	R	85	dsPIC	256	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.97	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ128MC710A*	R	85	dsPIC	128	16384	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$5.18	PBOR, POR, WDT	TQFP (PT, PF)	
	dsPIC33FJ256MC710A	R	85	dsPIC	256	30720	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	24 ch 2 ADC	–	–	8	8	8	1	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	$5.67	PBOR, POR, WDT	TQFP (PT, PF)	

*Parts available with High Temperature options.

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

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

Products sorted by pin count followed by pricing.

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

dsPIC33 DSC SMPS and Digital Power Conversion Family

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Power Supply PWM Ch[1]	QEI	16-bit Timer[2]	Communication		PMP	RTCC	PPS	5 ku Pricing†	Monitors	Packages (Designator)	
					Program KB	Data RAM (B)	EEPROM	DMA #Ch		Maximum Speed MIPS	Internal Oscillator	ADC 10-bit 2000/4000 ksps	DAC	Comparators						Digital Communication	CAN					System Mgmt. Features		
18-Pin	dsPIC33FJ06GS101	R	13	dsPIC®	6	256	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	–	1	–	4	–	2	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$1.96	BOR, POR, WDT	SOIC (SO)	18-Pin
28-hPin	dsPIC33FJ06GS102	R	21	dsPIC	6	256	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	6 ch	–	–	1	–	4	–	2	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.20	BOR, POR, WDT	QFN (MM), SOIC(SO), SPDIP (SP)	28-hPin
	dsPIC33FJ06GS202	R	21	dsPIC	6	1024	AN1095[1]	–	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 I²C	–	–	–	✓	$2.38	BOR, POR, WDT	QFN (MM), SOIC(SO), SPDIP (SP)	
	dsPIC33FJ16GS402	R	21	dsPIC	16	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	8 ch	–	–	2	2	6	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.52	BOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
	dsPIC33FJ16GS502	R	21	dsPIC	16	2048	AN1095[1]	–	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 I²C	–	–	–	✓	$3.04	BOR, POR, WDT	QFN (MM), SOIC (SO), SPDIP (SP)	
44-Pin	dsPIC33FJ16GS404	R	35	dsPIC	16	2048	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	8 ch	–	–	2	2	6	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.77	BOR, POR, WDT	QFN (ML), TQFP (PT)	44-Pin
	dsPIC33FJ16GS504	R	35	dsPIC	16	2048	AN1095[1]	–	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 I²C	–	–	–	✓	$3.42	BOR, POR, WDT	QFN (ML), TQFP (PT)	
64-Pin	dsPIC33FJ32GS406	R	58	dsPIC	32	4096	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	–	–	4	4	12	1	5	2 UART, 2 SPI, 2 I²C	–	–	–	–	Call for Pricing	BOR, POR, WDT	QFN (MR), TQFP (PT)	64-Pin
	dsPIC33FJ64GS406	R	58	dsPIC	64	8192	AN1095[1]	–	3V-3.6V	40	7.37 MHz, 32 kHz	16 ch	–	–	4	4	12	1	5	2 UART, 2 SPI, 2 I²C	–	–	–	–	Call for Pricing	BOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ32GS606	R	58	dsPIC	32	4096	AN1095[1]	–	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 I²C	–	–	–	–	Call for Pricing	BOR, POR, WDT	QFN (MR), TQFP (PT)	
	dsPIC33FJ64GS606	R	58	dsPIC	64	9216	AN1095[1]	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 I²C	1	–	–	–	Call for Pricing	BOR, POR, WDT	QFN (MR), TQFP (PT)	
80-Pin	dsPIC33FJ32GS608	R	74	dsPIC	32	4096	AN1095[1]	–	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 I²C	–	–	–	–	Call for Pricing	BOR, POR, WDT	TQFP (PT)	80-Pin
	dsPIC33FJ64GS608	R	74	dsPIC	64	9216	AN1095[1]	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 I²C	1	–	–	–	Call for Pricing	BOR, POR, WDT	TQFP (PT)	
100-Pin	dsPIC33FJ32GS610	R	85	dsPIC	32	4096	AN1095[1]	–	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 I²C	–	–	–	–	Call for Pricing	BOR, POR, WDT	TQFP (PF, PT)	100-Pin
	dsPIC33FJ64GS610	R	85	dsPIC	64	9216	AN1095[1]	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 I²C	1	–	–	–	Call for Pricing	BOR, POR, WDT	TQFP (PF, PT)	

*Parts available with High Temperature options.

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.

dsPIC30F DSC Families

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory			Voltage Range	Operating Speed		Analog			Output Compare/PWM	Input Capture	Motor Control PWM Ch	Power Supply PWM Ch	QEI	Codec (I²S, AC97)	16-bit Timer[1]	Communication		5 ku Pricing†	Monitors	Packages (Designator)	
					Program KB	Data RAM (B)	EEPROM		Maximum Speed MIPS	Internal Oscillator	ADC	DAC	Comparators								Digital Communication	CAN		System Mgmt. Features		
18-Pin	dsPIC30F2011	R	12	dsPIC®	12	1024	–	2.5V-5.5V	30	7.37 MHz, 32 kHz	8 x 12-bit @ 200 (ksps)	–	–	2	2	–	–	–	–	3	1 UART, 1 SPI, 1 I²C	–	$2.23	PBOR, LVD, POR, WDT	PDIP (P), SOIC (SO), QFN (ML)	18-Pin
	dsPIC30F3012	R	12	dsPIC	24	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	8 x 12-bit @ 200 (ksps)	–	–	2	2	–	–	–	–	3	1 UART, 1 SPI, 1 I²C	–	$2.68	PBOR, LVD, POR, WDT	PDIP (P), SOIC (SO), QFN (ML)	
28-/40-Pin	dsPIC30F2012	R	20	dsPIC	12	1024	–	2.5V-5.5V	30	7.37 MHz, 32 kHz	10 x 12-bit @ 200 (ksps)	–	–	2	2	–	–	–	–	3	1 UART, 1 SPI, 1 I²C	–	$2.32	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML)	28-/40-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 I²C	–	$2.43	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML), PDIP (P)	
	dsPIC30F3013	R	20	dsPIC	24	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	10 x 12-bit @ 200 (ksps)	–	–	2	2	–	–	–	–	3	2 UART, 1 SPI, 1 I²C	–	$2.77	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML)	
	dsPIC30F1010	R	21	dsPIC	6	256	–	3V-5.5V	30	7.37 MHz	6 x 10-bit @ 2000 (ksps)	2 x 10 bit	2	1	–	–	4	–	–	2	1 UART, 1 SPI, 1 I²C	–	$2.82	LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
	dsPIC30F3010	R	20	dsPIC	24	1024	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 I²C	–	$3.02	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML)	
	dsPIC30F2020	R	21	dsPIC	12	512	–	3V-5.5V	30	7.37 MHz	8 x 10-bit @ 2000 (ksps)	4 x 10 bit	4	2	1	–	8	–	–	3	1 UART, 1 SPI, 1 I²C	–	$3.62	LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (MM)	
	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 I²C	1	$3.71	PBOR, LVD, POR, WDT	SOIC (SO), SPDIP (SP), QFN (ML)	
40-Pin	dsPIC30F3014	R	30	dsPIC	24	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	13 x 12-bit @ 200 (ksps)	–	–	2	2	–	–	–	–	3	2 UART, 1 SPI, 1 I²C	–	$3.24	PBOR, LVD, POR, WDT	PDIP (P), TQFP (PT), QFN (ML)	40-Pin
	dsPIC30F3011	R	30	dsPIC	24	1024	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	9 x 10-bit @ 1000 (ksps)	–	–	2	4	6	–	1	–	5	2 UART, 1 SPI, 1 I²C	–	$3.32	PBOR, LVD, POR, WDT	PDIP (P), TQFP (PT), QFN (ML)	
	dsPIC30F4013	R	30	dsPIC	48	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	13 x 12-bit @ 200 (ksps)	–	–	4	4	–	–	–	1	5	2 UART, 1 SPI, 1 I²C	1	$3.91	PBOR, LVD, POR, WDT	PDIP (P), TQFP (PT), QFN (ML)	
	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 I²C	1	$4.02	PBOR, LVD, POR, WDT	PDIP (P), TQFP (PT), QFN (ML)	
44-Pin	dsPIC30F2023	R	35	dsPIC	12	512	–	3V-5.5V	30	7.37 MHz	12 x 10-bit @ 2000 (ksps)	4 x 10 bit	4	2	1	–	8	–	–	3	1 UART, 1 SPI, 1 I²C	–	$4.02	LVD, POR, WDT	TQFP (PT), QFN (ML)	44-Pin
64-Pin	dsPIC30F5011	R	52	dsPIC	66	4096	1024	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 I²C	2	$4.96	PBOR, LVD, POR, WDT	TQFP (PT)	64-Pin
	dsPIC30F5015	R	52	dsPIC	66	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	16 x 10-bit @ 1000 (ksps)	–	–	4	4	8	–	1	–	5	1 UART, 2 SPI, 1 I²C	1	$5.08	PBOR, LVD, POR, WDT	TQFP (PT)	
	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 I²C	2	$6.89	PBOR, LVD, POR, WDT	TQFP (PT)	
	dsPIC30F6012A	R	52	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 I²C	2	$6.96	PBOR, LVD, POR, WDT	TQFP (PT)	
	dsPIC30F6015	R	52	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 I²C	1	$7.18	PBOR, LVD, POR, WDT	TQFP (PT)	
80-Pin	dsPIC30F5013	R	68	dsPIC	66	4096	1024	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 I²C	2	$5.47	PBOR, LVD, POR, WDT	TQFP (PF)	80-Pin
	dsPIC30F5016	R	68	dsPIC	66	2048	1024	2.5V-5.5V	30	7.37 MHz, 32 kHz	16 x 10-bit @ 1000 (ksps)	–	–	4	4	8	–	1	–	5	1 UART, 2 SPI, 1 I²C	1	$5.59	PBOR, LVD, POR, WDT	TQFP (PF)	
	dsPIC30F6013A	R	68	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 I²C	2	$7.14	PBOR, LVD, POR, WDT	TQFP (PF)	
	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 I²C	2	$7.25	PBOR, LVD, POR, WDT	TQFP (PF)	
	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 I²C	2	$7.36	PBOR, LVD, POR, WDT	TQFP (PF)	

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

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

Thermal Management – Temperature Sensors

Part #	Typical Accuracy (°C)	Max. Accuracy @ 25°C (°C)	Max. Temperature Range (°C)	Vcc Range (V)	Max. Op Current (µA)	Features	Packages
TC6501/2/3/4	±0.5	±3	-55 to +125	+2.7 to +5.5	40	Cross to MAX6501/2/3/4, Open-drain and push-pull output options	SOT-23A
MCP9509/10	±0.5	NS	-40 to +125	+2.7 to +5.5	50	Resistor-programmable temperature switch	SOT-23A
MCP9700/01	±1	±4	-40 to +125	+2.3 to +5.5	12	Linear Active Thermistor® IC	SOT-23A, TO-92, SC70
MCP9700/01A	±1	±2	-40 to +125	+2.3 to +5.5	12	Linear Active Thermistor® IC	SOT-23A, TO-92, SC70
TC1046	±0.5	±2	-40 to +125	+2.7 to +4.4	60	High precision temperature-to-voltage converter, 6.25 mV/°C	SOT-23A
TC1047A	±0.5	±2	-40 to +125	+2.5 to +5.5	60	High precision temperature-to-voltage converter, 10 mV/°C	SOT-23A
MCP9800 /1/2/3	±0.5	±1	-55 to +125	+2.7 to +5.5	400	SMbus/I²C™ compatible interface, 0.0625°C to 0.5°C adj. resolution, power-saving one-shot temperature measurement	SOIC, MSOP, SOT-23A
MCP9804	±0.25	±1	-40 to +125	+2.7 to +5.5	400	User programmable temperature limits with alert output, 1°C temp. accuracy from -40°C to +125°C	MSOP, DFN
MCP9843	±0.5	±1	-20 to +125	+3.0 to +3.6	400	JEDEC compatible register set, SMbus/I²C™ compatible interface, programmable, shut-down modes and EVENT output	TSSOP, DFN
MCP98242	±0.5	±1	-20 to +125	+3.0 to +3.6	400	Same temperature sensor as MCP9805 plus integrated DDR2 Serial Presence Detect EEPROM	TSSOP, DFN
MCP98243	±1	±3	-40 to +125	+3.0 to +3.6	500	Serial output temperature sensor with integrated EEPROM	TSSOP, DFN, TDFN
TC77	±0.5	±1	-55 to +125	+2.7 to +5.5	400	SPI compatible interface, 0.0625°C temperature resolution	SOIC, SOT-23A
TC72	±0.5	±1	-55 to +125	+2.65 to +5.5	400	SPI compatible interface, power-saving one-shot temperature measurement, 0.25°C temperature resolution	MSOP, DFN
TC74	±0.5	±2	-40 to +125	+2.7 to +5.5	350	SMbus/I²C™ compatible interface, 1°C temperature resolution	SOT-23A, TO-220
TCN75A	±0.5	±2	-40 to +125	+2.7 to +5.5	500	SMbus/I²C™ compatible interface, power-saving one-shot temperature measurement, multi-drop capability, 0.0625°C to 0.5°C adjustable temperature resolution	SOIC, MSOP

Power Management – Linear Regulators

Part #	Max. Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Typical Active Current (µA)	Typical Dropout Voltage @ Max. I_{OUT} (mV)	Typical Output Voltage Accuracy (%)	Features	Packages
TC1016/17	6	1.8 to 4.0	80/150	53	150/285	±0.5	Shutdown	SOT-23A, SC70
TC2014/5, TC2185	6	1.8 to 5.0	50/100/150	55	45/90/140	±0.4	Shutdown, Reference bypass input	SOT-23A
TC2054/5, TC2186	6	1.8 to 5.0	50/100/150	55	45/90/140	±0.4	Shutdown, Error output	SOT-23A
MCP1790/1	30	3.0, 3.3, 5.0	70	70	500	±0.2	Load dump, Shutdown, PowerGood	SOT-223, DDPAK
MCP1801/2	10	0.9 to 6.0	150/300	25	250/800	±0.4	Shutdown, High PSRR	SOT-23A
MCP1804	28	1.8 to 18	150	50	300	±0.5	Shutdown, High PSRR	SOT-23,SOT-89,SOT-223
MCP1700	6	1.2 to 5.0	250	1.6	300	±0.4	Very low I_Q	SOT-23A, SOT-89, TO-92
MCP1702/3	13.2/16	1.2 to 5.0	250	2	330/625	±0.4	Very low I_Q	DFN, TO-92, SOT-23A, SOT-89, SOT-223
MCP1824/5/6/7	6	0.8 to 5.0	300/500/1000/1500	120/120/140/140	200/210/300/330	±0.5	Fixed and Adjustable output, Shutdown, Power Good	SOT-23, SOT-223, TO-220, DDPAK
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	SOIC, DFN, SOT-223, TO-220, DDPAK
MCP1725/6/7	6	0.8 to 5.0	500/1000/1500	120/140/140	210/300/330	±0.5	Shutdown, C_{DELAY}, Power Good	SOIC, DFN
TC1300	6	2.5 to 3.3	300	80	210	±0.5	LDO plus Reset output, Shutdown, Reference bypass input	MSOP
TC1301A/B	6	1.5 to 3.3	LDO1: 300 LDO2: 150	103/114	LDO1: 104 LDO2: 150	±0.5	Dual LDO plus Reset output, Shutdown, Reference bypass, Voltage detect	MSOP, DFN
TC1302AB	6	1.5 to 3.3	LDO1: 300 LDO2: 150	103/114	LDO1: 104 LDO2: 150	±0.5	Dual LDO, Shutdown, reference bypass, Voltage detect	MSOP, DFN
TC1307	6	1.8 to 3.0	150	220	200	±0.5	Quad LDO plus Reset output, Shutdown, Select Mode™ selectable output voltage	QSOP

Power Management – Switching Regulators/PWM Controllers

Part #	Input Voltage Range (V)	Output Voltage (V)	Operating Temperature Range (°C)	Control Scheme	Switching Frequency (kHz)	Typical Active Current (µA)	Output Current (mA)	Features	Packages
MCP1630/V 1631/V	3.0 to 5.5	–	-40 to +125	PWM	1000/2000	2800/3700	Ext	Current/Voltage mode PWM controller,UVLO, Short Circuit and Over-temperature Protection, Integrated MOSFET driver	MSOP, SSOP, TSSOP, DFN
MCP1631HV/VHV	3.5 to 16	–	-40 to +125	PWM	2000	3700	Ext	Current/Voltage mode PWM controller with integrated 16V LDO, UVLO, Integrated error, current and voltage sense amplifier, overvoltage comparator and MOSFET driver	SSOP, TSSOP
TC1303/04/13	2.7 to 5.5	DC/DC: 0.8 to 4.5 DO: 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	MSOP, DFN
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	MSOP, DFN, TSOT
MCP1640/B/C/D	0.65 to 6	2.0 to 5.5	-40 to +85	PWM or PWM/PFM	500	19	350	Integrated synchronous boost regulator, -.65V start-up voltage, soft-start, True load disconnect or input-to-output bypass option	SOT-23, DFN
MCP1650/1/2/3	2.7 to 5.5	2.5 to ext. tx limited	-40 to +125	Constant Frequency	750	120	560/440	Step-up DC/DC Controller with shutdown control, low battery detect, Power Good indicator, UVLO, soft start	MSOP

Power Management – Charge Pump DC-to-DC Converters

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

Power Management – CPU/System Supervisors

Part #	Description	Operating Temp Range (°C)	Features	Packages
MCP11(1/2) TC5(1/2/3/4)	System Voltage Detectors (No Reset Delay)	-40 to +125 -40 to +85	Wide V_{CC} Input Range, Wide Detection Range (Custom Options Available), Low Current, CMOS/Push-Pull Active Low Reset Options	3/SOT-23A, 3/SOT-89, 3/TO-92, 5/SOT-23, 3/SC-70
MCP809, MCP100, MCP130, MCP120 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	3/SOT-23, 3/TO-92, 3/SC-70, 8/SOIC 150mil, 5/SOT-23, 4/SOT-143

Power Management – Power MOSFET Drivers

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

Power Management – Synchronous Buck High-Side Driver

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

Power Management – Battery Chargers

Part #	Mode	Cell Type	# of Cells	Vcc Range (V)	Cell Voltage (V)	Max. Charging Current (mA)	Max. Voltage Regulation (%)	Int/Ext FET	Features	Packages
MCP73113/14 /23	Linear	Li-ion/Li-Polymer and LiFePO4	1	4 to 16	3.6, 4.1, 4.2, 4.35, 4.4	1100	±0.5	Int	6.5/5.8V Overvoltage Protection, UVLO, Thermal regulation	10-pin 3x3 DFN
MCP73213/23	Linear	Li-ion/Li-Polymer and LiFePO4	2	4 to 16	7.2, 8.2, 8.4, 8.7, 8.8	1100	±0.6	Int	13V Overvoltage Protection	10-pin 3x3 DFN
MCP73831/2	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	500	±0.75	Int	UVLO, Thermal regulation, Programmable charge current, tri-state or open-drain STAT pin	8-pin 2x3 DFN, 5-pin SOT-23
MCP73837 /8	Linear	Li-Ion/Li-Polymer	1	3.7 to 6.0	4.2, 4.35, 4.4, 4.5	1000	±0.75	Int	Dual input (USB/DC) auto-switching, Thermistor input, Power Good output or Timer enable input	10-pin MSOP, 10-pin 3x3 DFN
MCP73871	Linear	Li-Ion/Li-Polymer	1	3.75 to 6.0	4.2, 4.35, 4.4, 4.5	1500 (A/C Adapter) 500 (USB)	±0.5	Int	Simultaneous charging of load and battery, load-dependent charging, multiple programmable charge currents	20-pin SSOP, 20-pin 4x4 QFN

Linear – Op Amps

Part #	# per Package	GBWP (MHz)	I_Q Typical (µA)	V_{OS} Max (mV)	Operating Voltage (V)	Packages
MCP6031/2/3/4	1/2/1/4	0.01	0.9	0.15	1.8 to 5.5	SOIC, MSOP, TSSOP, DFN, SOT
MCP6041/2/3/4	1/2/1/4	0.014	0.6	3	1.4 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6141/2/3/4	1/2/1/4	0.1	0.6	3	1.4 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6401	1	1	45	4.5	1.8 to 6.0	SC70,SOT
MCP606/7/8/9	1/2/1/4	0.155	19	0.25	2.5 to 6.0	PDIP, SOIC, TSSOP, SOT
MCP616/7/8/9	1/2/1/4	0.19	19	0.15	2.3 to 5.5	PDIP, SOIC, MSOP, TSSOP
MCP6231/2/4	1/2/4	0.3	20	5	1.8 to 6.0	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP6051/2/4	1/2/4	0.385	30	0.15	1.8 to 6.0	SOIC, TSSOP, DFN
TC7652	1	0.4	1000	0.005	5.0 to 16	PDIP
MCP6241/2/4	1/2/4	0.55	50	5	1.8 to 5.5	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP6061/2/4	1/2/4	0.73	60	0.15	1.8 to 6.0	SOIC, TSSOP, DFN
MCP6001/2/4	1/2/4	1	100	4.5	1.8 to 6.0	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP6L01/2/4	1/2/4	1	85	5	1.8 to 6.0	SOIC, MSOP, TSSOP, SOT, SC70
MCP6071/2/4	1/2/4	1.2	110	0.15	1.8 to 6.0	SOIC, TSSOP, DFN
MCP6V01/2/3	1/2/1	1.3	300	0.002	1.8 to 5.5	SOIC, DFN, TDFN
MCP6V06/7/8	1/2/1	1.3	300	0.003	1.8 to 5.5	SOIC, DFN, TDFN

Part #	# per Package	GBWP (MHz)	I_Q Typical (µA)	V_{OS} Max (mV)	Operating Voltage (V)	Packages
TC913A/B	2	1.5	650	.015/.03	7.0 to 16	PDIP, SOIC
TC7650	1	2	2000	0.005	4.5 to 16	PDIP
MCP6271/2/3/4/5	1/2/1/4/2	2	170	3	2.0 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6L71/2/4	1/2/4	2	150	4	2.0 to 6.0	SOIC, MSOP, TSSOP, SOT
MCP601/2/3/4	1/2/1/4	2.8	230	2	2.7 to 6.0	PDIP, SOIC, TSSOP, SOT
MCP6L1/2/4	1/2/4	2.8	200	3	2.7 to 6.0	SOIC, MSOP, TSSOP, SOT
MCP6286	1	3.5	540	1.5	2.2 to 5.5	SOT
MCP6281/2/3/4/5	1/2/1/4/2	5	445	3	2.2 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6021/2/3/4	1/2/1/4	10	1000	0.5	2.5 to 5.5	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6291/2/3/4/5	1/2/1/4/2	10	1000	3	2.4 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6L91/2/4	1/2/4	10	850	4	2.4 to 6.0	SOIC, MSOP, TSSOP, SOT
MCP621/2/5	1/2/2	20	2500	0.2	2.5 to 5.5	SOIC, MSOP, DFN
MCP631/2/3/5	1/2/1/2	24	2500	8	2.5 to 5.5	SOIC, MSOP, DFN
MCP651/2/5	1/2/2	50	6000	0.2	2.5 to 5.5	SOIC, MSOP, DFN
MCP661/2/3/5	1/2/1/2	60	6000	8	2.5 to 5.5	SOIC, MSOP, DFN

Linear – Comparators

Part #	# per Package	Typical Propagation Delay (µs)	I_Q Typical (µA)	Vos Max (mV)	Operating Voltage (V)	Temperature Range (°C)	Features	Packages
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	PDIP, SOIC, MSOP, TSSOP, SOT, SC70
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	PDIP, SOIC, MSOP, TSSOP, SOT, SC70
MCP6561/2/4	1/2/4	0.047	100	10	1.8 to 5.5	-40 to +125	Push-Pull, Rail-to-Rail Input/Output	SOIC, MSOP, TSSOP, SOT, SC70
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	SOIC, MSOP, TSSOP, SOT, SC70

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

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

Mixed Signal – Digital Potentiometers

Part #	# 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^2C™	5, 10, 50, 100	-40 to +125	SC-70
MCP40D17/D18/D19	128	Volatile	1	I^2C™	5, 10, 50, 100	-40 to +125	SC-70
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

Part #	# of Taps	Memory	Channels	Interface	Resistance (kΩ)	Temperature Range (°C)	Packages
MCP4341/42	129	Nonvolatile	4	I^2C™	5,10,50,100	-40 to +125	TSSOP,QFN
MCP4361/62	257	Nonvolatile	4	I^2C™	5,10,50,100	-40 to +125	TSSOP,QFN
MCP4331/32	129	Volatile	4	I^2C™	5,10,50,100	-40 to +125	TSSOP,QFN
MCP4351/52	257	Volatile	4	I^2C™	5,10,50,100	-40 to +125	TSSOP,QFN
MCP4531/32	128	Volatile	1	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4631/32	128	Volatile	2	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4541/42	128	Nonvolatile	1	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4641/42	128	Nonvolatile	2	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4551/52	256	Volatile	1	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4651/52	256	Volatile	2	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4561/62	256	Nonvolatile	1	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN
MCP4661/62	256	Nonvolatile	2	I^2C™	5, 10, 50, 100	-40 to +125	MSOP, DFN

Mixed Signal – Delta Sigma Analog-to-Digital Converters

Part #	Resolution (bits)	Maximum Sampling Rate (samples/sec)	# of Input Channels	Interface	Typical Supply Current (µA)	Temperature Range (°C)	Features	Packages
MCP3421/2/3/4	18 to 12	4 to 240	1/2/2/4 Diff	I²C™	155	-40 to +125	PGA, VREF	SOT, DFN, MSOP, SOIC, TSSOP
MCP3425/6/7/8	16 to 12	15 to 240	1/2/2/4 Diff	I²C™	155	-40 to +125	PGA, VREF	SOT, DFN, MSOP, SOIC, TSSOP
MCP3550/1/3	22	13/14/60	1 Diff	SPI	120	-40 to +125	50 & 60 Hz Rejection	SOIC, MSOP

Mixed Signal – Energy Measurement ICs

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

Mixed Signal – Digital-to-Analog Converters

Part #	Resolution (Bits)	DAC Channels	Interface	Voltage Reference	Output Settling Time (µs)	DNL (±LSB)	Typical Operating Current (µA)	Temperature Range (°C)	Packages
MCP4725	12	1	I²C™	VDD	6	0.75	175	-40 to +125	SOT-23
MCP4728	12	4	I²C™	Int	6	0.75	250	-40 to +125	MSOP
MCP4801/11/21	8/10/12	1	SPI	Int	4.5	0.5/0.5/0.75	330	-40 to +125	2x3 DFN, MSOP, PDIP, SOIC
MCP4802/12/22	8/10/12	2	SPI	Int	4.5	0.5/0.5/0.75	415	-40 to +125	MSOP, PDIP, SOIC
MCP4901/11/21	8/10/12	1	SPI	Ext	4.5	0.5/0.5/0.75	175	-40 to +125	2x3 DFN, MSOP, PDIP, SOIC
MCP4902/12/22	8/10/12	2	SPI	Ext	4.5	0.5/0.5/0.75	350	-40 to +125	PDIP, SOIC, TSSOP
TC1320/1	8/10	1	SMbus	Ext	10	0.8/2	350	-40 to +85	MSOP, SOIC

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

Part #	Description	Operating Temperature Range (°C)	Other Features	Packages
MCP2515	Stand-Alone CAN Controller with SPI Interface	-40 to +125	1 Mbps max. CAN bus speed, ISO11898 compatible, Industry standard pinout	PDIP, SOIC, TSSOP
MCP2551	CAN (Controller Area Network), High-Speed CAN Transceiver	-40 to +125	3 TX Buffers, 2 RX Buffers, 6 Filters, 2 Masks, Interrupt output, MCP2510 upgrade	PDIP, SOIC
MCP202(1/2)	LIN (Local Interconnect Network), LIN Transceiver with Voltage Regulator	-40 to +125	VREG = 5.0 ± 3%, 3.3 ± 3% @ 50 mA, VCC Range = 7.4 to 18V, Max Baud Rate = 20 Kbaud, Supports LIN Specs; 1.3, 2.0, 2.1, SAE J2602, Exceeds Automotive OEM ESD/EMC Requirements	PDIP, SOIC, TSSOP, DFN
MCP200(3/4)	Stand-alone LIN Transceiver	-40 to +125	VCC Range = 6 to 27V, Max Baud Rate = 20 Kbaud, Supports LIN Specs 1.3, 2.0, 2.1,SAE J2602, Exceeds Automotive OEM ESD/EMC Requirements	PDIP, SOIC, DFN
MCP23X09/18	8-bit I/O Port Expander, 16-bit I/O Port Expander	-40 to +125	I²C (up to 3.4 MHz) or SPI (up to 10 MHz) interface, 25 mA source/sink per I/O	PDIP, SDIP, SOIC, SSOP
MCP212(0/2), MCP2140A, MCP215(0/5)	Infrared IrDA Encoders, Decoders, Protocol Handlers	-40 to +85	UART to IR encoder/decoder w/hardware & software baud rate selection, IrDA® Standard protocol handler plus encoder/decoder	PDIP, SDIP, SOIC, SSOP
MCP2200	UART to USB Protocol Converter	-40 to +85	USB 2.0 Compliant, 8 GPIO, Supports High-speed USB (12 Mbps)	SOIC, SSOP, QFN
ENC28J60	Stand-Alone 10 Base-T Ethernet Controller with SPI Interface	-40 to +85	Ethernet Controller, 8 KB RAM Buffer, Integrated 10 BASE-T PHY	SPDIP, SOIC, SSOP, QFN
ENC424J600	Stand-Alone 10/100 Base-T Ethernet Controller with SPI and Parallel Interface	-40 to +85	Ethernet Controller, 24 KB RAM Buffer, Cyrptographic Security Engine, 10/100 Base-T PHY	TQFP, QFN
ENC624J600	Stand-Alone 10/100 Base-T Ethernet Controller with SPI and Parallel Interface	-40 to +85	Ethernet Controller, 24 KB RAM Buffer, Cyrptographic Security Engine, 10/100 Base-T PHY	TQFP

Interface – mTouch™ AR1000 Resistive Touch Screen Controllers

Part #	Type	Communication	Touch Screens Supported	A/D	Resolution	Power	Points per second	Baud Rate	Operating Temperature Range (°C)	Static Protection	5 ku Pricing†	Special Features	Package
AR1010	Analog Resistive	UART	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 X 1024	3.3V DC ±5% 5.5V DC ±5%	140 pps	Standard 9600	-40 to +85	Per schematic	$1.39	Controller driven calibration & Universal for all touch screens	20-pin SSOP (SS), SOIC (SO), QFN (ML)
AR1020	Analog Resistive	SPI, I²C™	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 X 1024	3.3V DC ±5% 5.5V DC ±5%	140 pps	Standard 9600	-40 to +85	Per schematic	$1.39	Controller driven calibration & Universal for all touch screens	20-pin SSOP (SS), SOIC (SO), QFN (ML)

Safety & Security – Smoke Detector and Horn Driver ICs

Part #	Horn Driver	Detection Method	Low Battery Detection	Alarm Memory	Alarm Interconnect	Hush/Sensitivity Timer	Operating Temperature Range (°C)	Packages
RE46C140/1/3/4/5	Yes	Photo	Yes	No	Yes	140/4/5	-25 to +75	PDIP, SOIC
RE46C12X & 152	Yes	Ion	Yes	No	Not 120	122/7,152	-10 to +60	PDIP
RE46C10X & 11X	Yes	Just Driver	5/7/9/19	NA	9/19	None	See Datasheet	See Datasheet
RE46C165/6/7/8	Yes	Photo	Yes	Yes	Yes	Yes	-25 to +75	PDIP, SOIC
RE46C162/3	Yes	Ion	Yes	Yes	Yes	Yes	-25 to +75	PDIP

† - 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	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	Packages	Bus
												Hardware	Software					
Serial SRAM																		
SPI	23X640	R	64 Kb	x8	20 MHz	1.5V-1.95V 2.7V-3.6V	-40°C to +125°C	∞	Volatile	0 ms	4 µA	–	–	–	$0.51	20 MHz @ 3V, 32 Byte Page Buffer, Zero write cycle time, Infinite Endurance, Volatile RAM, Byte/Page/Sequential Read Write Modes	SOIC (SN), PDIP (P), TSSOP (ST)	SPI
	23X256	R	256 Kb	x8	20 MHz	1.5V-1.95V 2.7V-3.6V	-40°C to +125°C	∞	Volatile	0 ms	4 µA	–	–	–	$0.96	20 MHz @ 3V, 32 Byte Page Buffer, Zero write cycle time, Infinite Endurance, Volatile RAM, Byte/Page/Sequential Read Write Modes	SOIC (SN), PDIP (P), TSSOP (ST)	
Serial EEPROM																		
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, Status Register - WEL, WIP bits, 100-100 Kbps bit rate, 16 Byte page, Self-Timed write cycle	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	UNI/O® Bus
	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, Status Register - WEL, WIP bits, 100-100 Kbps bit rate, 16 Byte page, Self-Timed write cycle, Unique EUI-48™/EUI-64™ MAC address option available	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
	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, Status Register - WEL, WIP bits, 100-100 Kbps bit rate, 16 Byte page, Self-Timed write cycle	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
	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, Status Register - WEL, WIP bits, 100-100 Kbps bit rate, 16 Byte page, Self-Timed write cycle	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
	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, Status Register - WEL, WIP bits, 100-100 Kbps bit rate, 16 Byte page, Self-Timed write cycle	3-SOT-23 (TT), SOIC (SN), PDIP (P), DFN (MNY), MSOP (MS), TO-92 (TO), WLCSP (CS)	
I²C™	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	SOIC (SN), TSSOP (ST), 5-SOT-23 (OT), DFN (MC), PDIP (P)	I²C™
	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	8 or 16 Byte Page Write Buffer, address pin option - connect up to 8 devices on bus, Very low voltage option	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), SC70 (LT)	
	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	8 or 16 Byte Page Write Buffer, address pin option - connect up to 8 devices on bus, Very low voltage option, Unique EUI-48™/EUI-64™ MAC address option available	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), SC70 (LT)	
	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, Permananent and restable software WP - DIMM-DDR2/3, Address Pins, 16 Byte Page, 1.5V	SOIC (SN), TSSOP (ST), PDIP (P), 6-SOT-23 (OT), DFN (MNY), MSOP (MS)	
	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	SOIC (SN), PDIP (P), TSSOP (ST), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	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	SOIC (SN), TSSOP (ST), 5-SOT-23 (OT), PDIP (P), DFN (MNY), MSOP (MS)	
	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	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	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	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	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	SOIC (SN), TSSOP (ST), PDIP (P), 5-SOT-23 (OT), DFN (MNY), MSOP (MS), WLCSP (CS)	
	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	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS), WLCSP (CS)	
	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	SOIC (SN), TSSOP (ST), SOIJ (SM), PDIP (P), DFN (MF), MSOP (MS), WLCSP (CS)	
	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	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MF), SOIJ (SM), WLCSP (CS)	
	24XX1025	R	1 Mb	x8	1 MHz	1.7V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	5 µA	✓	–	W	$3.14	1 MHz @ 2.5V, 128 Byte Page, connect up to 4 devices on bus	SOIC(SN), SOIJ (SM), PDIP (P)	
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, Self timed erase/write cycles including auto-erase, Sequential Read	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	Microwire
	93XX56A/B/C	R	2 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	–	–	–	$0.20	ORG pin to select word size in 56C version, Automatic Erase all before write all, Self timed erase/write cycles including auto-erase, Sequential Read	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	93XX66A/B/C	R	4 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	–	–	–	$0.21	ORG pin to select word size in 66C version, Automatic Erase all before write all, Self timed erase/write cycles including auto-erase, Sequential Read	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	93XX76A/B/C	R	8 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	✓	–	W	$0.30	ORG pin to select word size in 76C version, Program Enable to WP entire array, Self timed erase/write cycles including auto-erase, Sequential Read	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	93XX86A/B/C	R	16 Kb	x8 / x16	3 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	1 µA	✓	–	W	$0.33	ORG pin to select word size in 86C version, Program Enable to WP entire array, Self timed erase/write cycles including auto-erase	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	

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

Serial EEPROM

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: Hardware	Write Protect: Software	Protected Array Size	5 ku Pricing†	Special/Unique Features	Packages	Bus
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, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle, 16 Byte Page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	SPI
	25XX020A/E48	R	2 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.31	5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle, 16 Byte Page, Unique EUI-48™/EUI-64™ MAC address option available	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	25XX040A	R	4 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.33	5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle, 16 Byte Page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MC), MSOP (MS), 6-SOT-23 (OT)	
	25XX080C/D	R	8 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.40	16/32 Byte Page, 5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS)	
	25XX160C/D	R	16 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.41	16/32 Byte Page, 5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS)	
	25XX320A	R	32 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.45	5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle, 32 Byte Page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY), MSOP (MS)	
	25XX640A	R	64 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.46	5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle, 32 Byte Page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MNY, MF), MSOP (MS)	
	25XX128	R	128 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.74	5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle, 64 Byte Page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MF)	
	25XX256	R	256 Kb	x8	10 MHz	1.8V-5.5V	-40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$1.01	5 MHz @ 2.5V, Block Write Protection, Status Register, Sequential Read, Self timed erase/write cycle, 64 Byte Page	SOIC (SN), TSSOP (ST), PDIP (P), DFN (MF), SOIJ (SM)	
	25XX512	R	512 Kb	x8	20 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	5 ms	10 µA	✓	✓	W, ½, ¼	$1.53	10 MHz @ 2.5V, Deep Power Down, Status Register, Page/Sector/Chip erase, Block/Sector WP, 128 Byte Page	SOIC (SN), PDIP (P), DFN (MF), SOIJ (SM)	
	25XX1024	R	1 Mb	x8	20 MHz	1.8V-5.5V	-40°C to +125°C	1M	200 Years	6 ms	12 µA	✓	✓	W, ½, ¼	$2.59	10 MHz @ 2.5V, Deep Power Down, Status Register, Page/Sector/Chip erase, Block/Sector WP, 256 Byte Page	PDIP (P), DFN (MF), SOIJ (SM)	

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 NOR Flash Memory

Voltage	Density	Parallel	SPI (Serial)	SQI™ (Quad-bit)	FWH/LPC
5V	512 Kbit	–	–	–	–
	1 Mbit	39SF010A	–	–	–
	2 Mbit	39SF020A	–	–	–
	4 Mbit	39SF040	–	–	–
3V	512 Kbit	39VF512	25VF512A	–	–
	1 Mbit	39VF010	25VF010A	–	–
	2 Mbit	39VF020, 39VF200A	25VF020B	–	–
	4 Mbit	39VF040, 39VF400A	25VF040B	–	–
	8 Mbit	39VF800A	25VF080B	–	49LF008B, 49LF080B
	16 Mbit	39VF160XC, 39VF168X	25VF016B	26VF016/26VF016B	49LF016C, 49LF160C
	32 Mbit	39VF320XB	25VF032B	26VF032/26VF032B	–
	64 Mbit	39VF640XB, 38VF640X	25VF064C	26VF064B	–

Voltage	Density	Parallel	SPI (Serial)	SQI™ (Quad-bit)	FWH/LPC
1.8V	512 Kbit	–	25WF512	–	–
	1 Mbit	–	25WF010	–	–
	2 Mbit	–	25WF020	–	–
	4 Mbit	39WF400B	25WF040	–	–
	8 Mbit	39WF800B	25WF080	26WF080B	–
	16 Mbit	39WF160X	–	26WF016B	–
	32 Mbit	–	–	26WF032/26WF032B	–
	64 Mbit	–	–	26WF064B	–

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

RF Products

IEEE 802.11 Modules

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

IEEE 802.15.4 Transceivers/Modules

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

Sub-GHz Transceivers/Modules

Product	Pin Count	Frequency Range (MHz)	Sensitivity (dBm)	Power Output (dBm)	RSSI	TX Power Consumption (mA)	RX Power Consumption (mA)	Clock	Sleep	Interface	Volume Pricing†	Packages
MRF49XA	16	433/868/915	-110	7	Yes	15 mA @ 0 dBm	11	10 MHz	Yes	4-wire SPI	$1.71	16/TSSOP
MRF89XA	32	868/915/950	-113	12.5	Yes	25 mA @ 10 dBm	3	12.8 MHz	Yes	4-wire SPI	$2.05	32/TQFN

rfPIC™ Transmitters + PIC® MCUs

Product	I/O Pins	Frequency Range (MHz)	Program Bytes	Program Words	EEPROM	RAM (bytes)	Digital Timer	Watch Dog Timer	Max. Speed (MHz)	ICSP™	Modulation	Data Rate (kbps)	Output Power (dBm)	Operating Voltage	Other Features	Volume Pricing†	Packages
rfPIC12F675F	6	380-450	1792	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0-5.5	4x10-bit A/D, Comparator	$2.11	20/SSOP 208 mil
rfPIC12F675H	6	850-930	1792	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0-5.5	4x10-bit A/D, Comparator	$2.11	20/SSOP 208 mil
rfPIC12F675K	6	290-350	1792	1024 x 12	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0-5.5	4x10-bit A/D, Comparator	$2.11	20/SSOP 208 mil

RF Receivers

Product	Frequency Range (MHz)	Modulation	Data Rate (kbps)	Sensivity (dBm)	IF Frequency Range (MHz)	Operating Voltage	RSSI	Selectable LNA Gain	Volume Pricing†	Packages
rfRXD0420	300-450	ASK, FSK, FM	80	-111	0.455-21.4	2.5-5.5	Yes	Yes	$1.71	32/LQFP
rfRXD0920	800-930	ASK, FSK, FM	80	-109	0.455-21.4	2.5-5.5	Yes	Yes	$2.62	32/LQFP

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

Terms and Definitions

1 KB	1024 bytes
1 Kw	1024 words
18F/PIC18	16-bit instruction word – 75/83 instructions
ADC	Analog to Digital Converter
AUSART	Addressable Universal Synchronous Asynchronous Receiver Transceiver
BL/Baseline	12-bit instruction word – 33 instructions
BOR/PBOR	Brown Out Reset/Programmable Brown Out Reset
CCP/ECCP	Capture Compare PWM/Enhanced Capture Compare PWM
Comp	Capacitive Sensing implemented via Comparator
CRC	Cyclical Redundancy Check
CSM	mTouch – Capacitive Sensing Module
CSP	Chip Scale Package
CTMU	mTouch – Charge Time Measurement Unit
CVD	Charge Voltage Divide (Capacitive Sensing Implemented via ADC)
DSM	Data Signal Modulator
dsPIC	16-bit Core with DSP
ECAN	Enhanced Controller Area Network
EEPROM	Electrically Erasable Programmable Read Only Memory
EFT	Electrical Fast Transient
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EMR/Enhanced-MidRange	14-bit instruction word – 49 instructions (denoted as PIC1XF1XXX)
ESD	Electrostatic Discharge
EUSART	Enhanced Universal Synchronous Asynchronous Receiver Transceiver
EWDT/WDT	Extended Watch Dog Timer/Watch Dog Timer
HV	High Voltage
ICD	In-Circuit Debug
ICE	In-Circuit Emulation
ICSP™	In-Circuit Serial Programming™
IDE	Integrated Development Environment
LCD	Liquid Crystal Display
LDO	Low Drop-Out voltage regulator
LF	Low Power Flash
MI^{2}C/I^{2}C	Master Inter-Integrated Circuit bus/Inter-Integrated Circuit bus
MIPS	Million Instructions Per Second
MR/Mid-Range	14-bit instruction word – 35 instructions
MSSP/SSP	Master/Synchronous Serial Port (I^{2}C & SPI Peripheral)
mTouch™	Proprietary Touch Sensing Technology
PIC24	16-bit Core
PIC32	32-bit Core
PLVD	Programmable Low Voltage Detect
POR/POOR	Power ON Reset/Power ON/OFF Reset
PWM	Pulse Width Modulation
RAM	Random Access Memory
RTCC	Real-Time Clock Calendar
Source/Sink Current	All Products Support 25 mA per I/O
SR Latch	Set Reset Latch
SRAM	Static Random Access Memory
SPI	Serial Peripheral Interface
T1G	Timer 1 Gate
USART	Universal Synchronous Asynchronous Receiver Transceiver
USB	Universal Serial Bus
USB (Full Speed)	12 Mb/s Data Rate
USB OTG	USB On-The-Go
XLP	nanoWatt XLP eXtreme Low Power Technology

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