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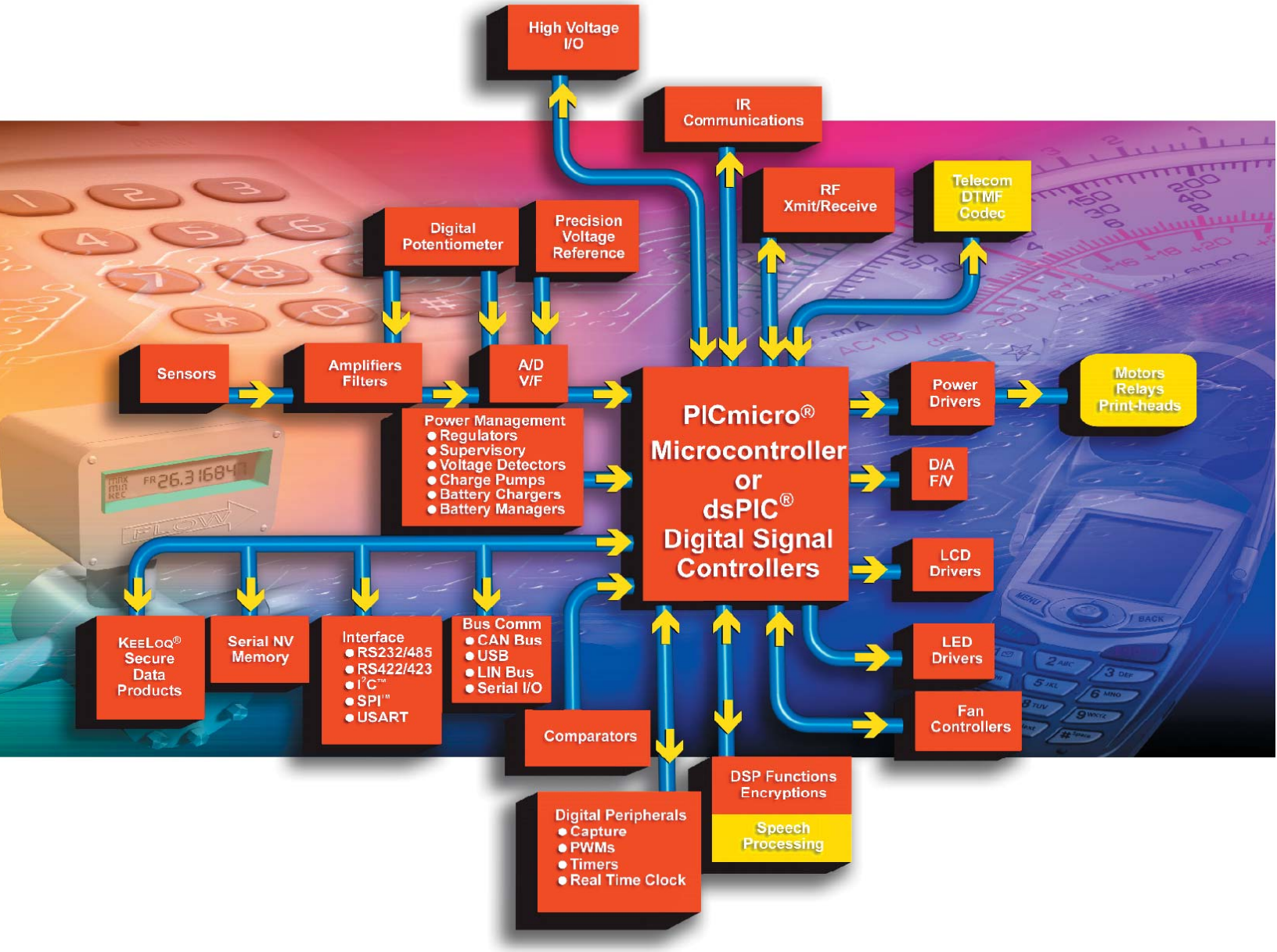
MICROCHIP

2005 Product Selector Guide



Product Profile

PICmicro® Microcontrollers

Microchip's PICmicro® family of microcontrollers combine high performance, low cost and small package size to offer the best price/performance ratio in the industry. Based on a powerful RISC core, the PICmicro architecture provides users an easy migration path from 6 to 84 pins among all families with little or no code change required. Advanced features available are:

- sophisticated timing peripherals
- embedded analog-to-digital converters (ADCs) and digital-to-analog converters (DACs)
- extended instruction/data memory
- communications peripherals (I^2C™/SPI™/USB/CAN and USARTs)
- In-Circuit Serial Programming™ technology (ICSP™)
- memory technology including one-time programmable (OTP), reprogrammable (FLASH) and read-only memory (ROM)
- advanced analog features (PBOR, PLVD, DAC, VREF, Op Amps and PSMC)

dsPIC® Digital Signal Controllers

Building on its leadership position in 8-bit microcontrollers, Microchip now offers a family of 16-bit High Performance Digital Signal Controllers (DSC) that combine in a single core the best features of microcontrollers with the best features of DSPs. These dsPIC DSC devices reach speeds of up to 30 MIPS, are very efficient for C programming, and have Flash, data EEPROM, powerful peripherals and a variety of software libraries that allow high performance embedded solutions to be designed effortlessly and in a short amount of time. With a familiar microcontroller architecture and design environment, these dsPIC DSC devices target applications such as motor control and power conversion, high-speed sensors, speech and audio, internet and modem connectivity, telecom, encryption and automotive applications.

Analog & Interface Products

Microchip offers a wide range of analog and related products:

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

Secure Data Products

Microchip's KEELOQ® family of code hopping devices provides "rock solid" security for remote-keyless-entry (RKE) and authentication applications. Devices using the KEELOQ code hopping algorithm combine high security, a small package outline and a very low cost to make this an ideal solution for unidirectional RKE systems. The KEELOQ code hopping technology creates a high degree of security using a long code word length together with encryption and synchronization techniques.

Memory Products

- Microchip offers one of the broadest selections of serial EEPROMs in densities from 128 bits to 512 Kbits, with operating voltages down to 1.8V, in all popular bus protocols (I^2C™, Microwire and SPI™ compatible). They are available in all standard temperature ranges from -40°C to +125°C and packaged in the world's smallest standard packaging; up to 16 Kbits in 5-lead SOT-23 and up to 256 Kbits in 8-lead MSOP. With high-speed buses, low power consumption, the highest E/W endurance and the longest data retention in the industry, Microchip's serial EEPROMs are used for virtually every application in the automotive, PC, consumer electronics, communications and industrial markets.

rfPIC® Microcontrollers and rfHCS Devices

The rfPIC® family significantly eases the radio frequency (RF) design process while reducing component count and board space. The first devices feature an integrated 315/433 MHz ASK/FSK transmitter. These low-power single-chip RF solutions are the first of many planned devices in the new family which targets RF connectivity for high-volume embedded control applications, such as remote sensing, remote control, toys, security and access control.

Development Systems

Microchip offers a full range of microcontroller development systems, including the MPLAB® ICE 2000 and ICE 9000 in-circuit emulators; MPLAB Integrated Development Environment; MPLAB C18 and C30 Compiler; the MPLAB ICD In-Circuit Debugger, MPLAB PM3 full-featured device programmer; PICSTART® low-cost development system; the PICkit™ 1 Flash Starater Kit, SEEVAL® Serial EEPROM Evaluation Kit and various demonstration boards. Microchip has shipped more than 300,000+ development systems worldwide.

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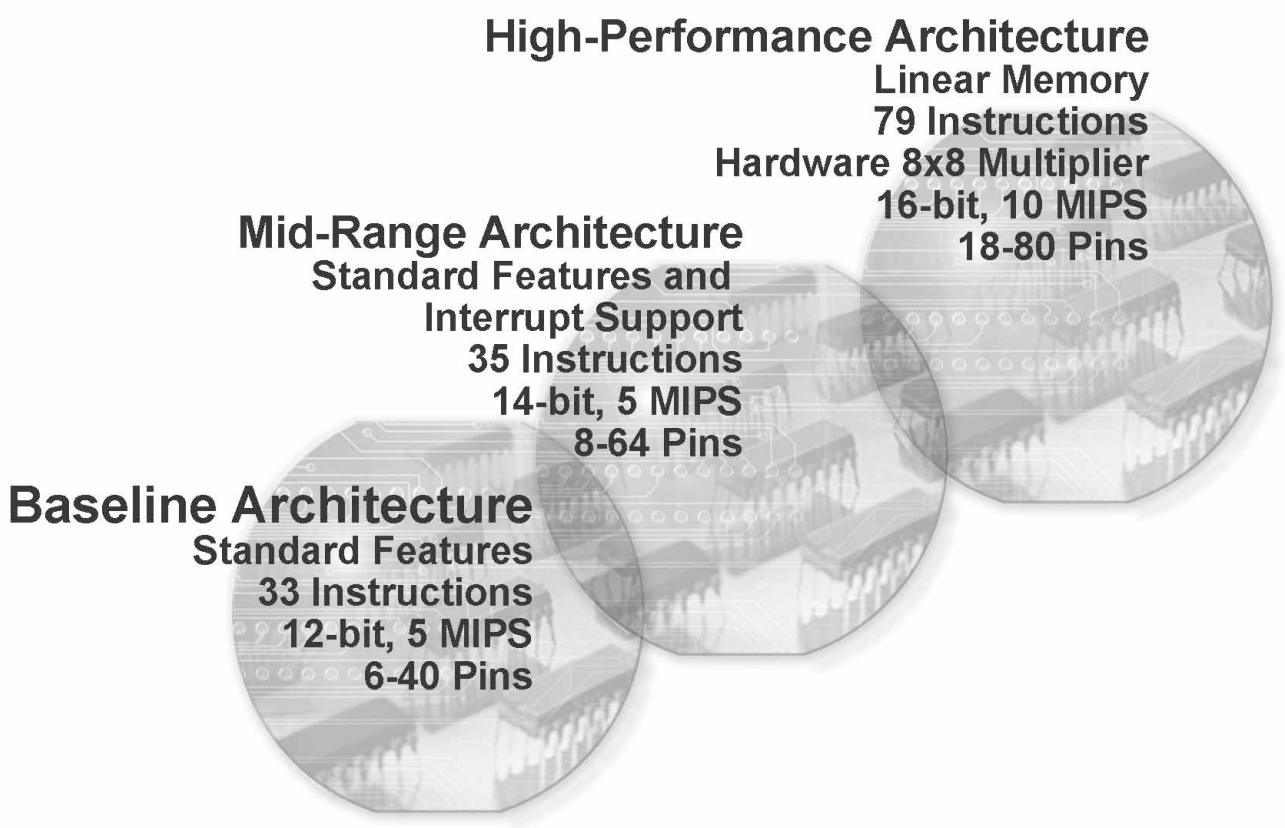
PICmicro® MICROCONTROLLER FAMILIES



CURRENT 8-BIT PICmicro® MICROCONTROLLER FAMILY PRODUCTS

Baseline 8-Bit PICmicro® Microcontroller Family (12-bit Instruction Set)

Product	Program Memory Bytes & Type (Words)	RAM Bytes	I/O Pins	Packages	Analog		Digital	Max. Speed MHz	IntOSC	ICSP™	BOR/ PBOR/ PLVD	ICD # of Breakpoints	Operating Voltage (V)	Other Features
					ADC	Comp.	Timers/WDT							
PIC10FXXX: 1 µs Instruction Execution, 33 Instructions														
PIC10F200	384 StdFl (256)	16	4	6OT, 8P	—	—	1-8 bit, 1-WDT	4	4 MHz	✓	—	1**	2.0 - 5.5	
PIC10F202	768 StdFl (512)	24	4	6OT, 8P	—	—	1-8 bit, 1-WDT	4	4 MHz	✓	—	1**	2.0 - 5.5	
PIC10F204	384 StdFl (256)	16	4	6OT, 8P	—	1	1-8 bit, 1-WDT	4	4 MHz	✓	—	1**	2.0 - 5.5	Bandgap reference
PIC10F206	768 StdFl (512)	24	4	6OT, 8P	—	1	1-8 bit, 1-WDT	4	4 MHz	✓	—	1**	2.0 - 5.5	Bandgap reference
PIC12FXXX: 1 µs Instruction Execution, 33 Instructions, 4 Oscillator Selections														
PIC12F508	768 StdFl (512)	25	6	8P, 8SN, 8MS	—	—	1-8 bit, 1-WDT	4	4 MHz	✓	—	1**	2.0 - 5.5	
PIC12F509	1536 StdFl (1024)	41	6	8P, 8SN, 8MS	—	—	1-8 bit, 1-WDT	4	4 MHz	✓	—	1**	2.0 - 5.5	
PIC16C/F5X: Upwardly Compatible with PIC16C5X/PIC12CXXX, 100-200 ns Instruction Execution, 33/35 Instructions, 4/5 Oscillator Selections														
PIC16C55A	768 OTP (512)	24	20	28P, 28JW, 28SP, 28SO, 28SS	—	—	1-8 bit, 1-WDT	40	—	—	—	—	2.5 - 5.5	
PIC16C56A	1536 OTP (1024)	25	12	18P, 18JW, 18SO, 20SS	—	—	1-8 bit, 1-WDT	40	—	—	—	—	2.5 - 5.5	
PIC16CR56A	1536 ROM (1024)	25	12	18P, 18SO, 20SS	—	—	1-8 bit, 1-WDT	20	—	—	—	—	2.5 - 5.5	
PIC16C58B	3072 OTP (2048)	73	12	18P, 18JW, 18SO, 20SS	—	—	1-8 bit, 1-WDT	40	—	—	—	—	2.5 - 5.5	
PIC16CR58B	3072 ROM (2048)	73	12	18P, 18SO, 20SS	—	—	1-8 bit, 1-WDT	20	—	—	—	—	2.5 - 5.5	
PIC16HV540	768 OTP (512)	25	12	18P, 18JW, 18SO, 20SS	—	—	1-8 bit, 1-WDT	20	—	—	BOR	—	3.5 - 15	8 high-voltage (15V) I/Os, 4 deep stack, 5 I/Os with wake-up-on-change
PIC16F505	1536 StdFl (1024)	72	12	14P, 14JW, 14SL	—	—	1-8 bit, 1-WDT	20	4 MHz	✓	—	1**	2.0 - 5.5	
PIC16F54	768 StdFl (512)	25	12	18P, 18SO, 20SS	—	—	1-8 bit, 1-WDT	20	—	✓	—	—	2.0 - 5.5	
PIC16F57	3072 StdFl (2048)	72	20	28P, 28SO, 28SS, 28SP	—	—	1-8 bit, 1-WDT	20	—	✓	—	—	2.0 - 5.5	
PIC16F59	3072 StdFl (2048)	134	32	40P, 44PT	—	—	1-8 bit, 1-WDT	20	—	✓	—	—	2.0 - 5.5	

***Contact Microchip Technology for availability date.**
**** Requires ICD specific device with header module – refer to Development Tools.**
Abbreviations are found on the last page of the Selector Guide.

Mid-Range 8-Bit PICmicro® Microcontroller Family (14-bit Instruction Set)

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR /PLVD	ICD # of Breakpoints	CCP/ ECCP	nW	Other Features
						ADC Ch	Comp.	Timers/WDT	Serial I/O							
PIC12FXXX: Upwardly Compatible with PIC12CXXX, 200 ns – 1 μs Instruction Execution, 35 Instructions, 4/5 Oscillator Selections, ICSP™																
PIC12F629	1792 StdFl (1024)	128	64	6	8P, 8SN, 8MF	—	1	1-8 bit, 1-16 bit, 1-WDT	—	20	4 MHz	BOR	1**	—	—	
PIC12F635	1792 StdFl (1024)	128	64	6	8P, 8SN, 8MF	—	1	1-8 bit, 1-16 bit, 1-WDT	—	20	8 MHz	BOR/ PLVD	1**	—	✓	KEELOQ® hardware peripheral
PIC12F675	1792 StdFl (1024)	128	64	6	8P, 8SN, 8MF	4x10-bit	1	1-8 bit, 1-16 bit, 1-WDT	—	20	4 MHz	BOR	1**	—	—	
PIC12F683	3584 StdFl (2048)	256	128	6	8P, 8SN, 8MF	4x10-bit	1	1-16 bit, 2-8 bit, 1-WDT	—	20	8 MHz	BOR	1**	1/0	✓	
PIC16CXXX: Upwardly Compatible with PIC16C5X/PIC12CXXX, 4-12 Interrupts, 100-200 ns Instruction Executions, 35 Instructions, 4/5 Oscillator Selections, ICSP™ (except ROM)																
PIC14000	7168 OTP (4096)	—	192	20	28SP, 28SO, 28SS, 28JW	8 SLAC	2	1-8 bit, 1-16 bit, 1-WDT	I^2C™/SMB	20	4 MHz	—	—	—	—	Temperature Sensor, Program Reference Generator
PIC16C432	3584 OTP (2048)	—	128	12	20SS, 20P, 20JW	—	2	1-8 bit, 1-WDT	LIN	20	—	BOR	—	—	—	LIN XCVR, 18V/40 mA
PIC16C433	3584 OTP (2048)	—	128	6	18SO, 18P, 18JW	4x8-bit	—	1-8 bit, 1-WDT	LIN	10	4 MHz	—	—	—	—	LIN XCVR, 18V/40 mA
PIC16C554	896 OTP (512)	—	80	13	18P, 18SO, 18JW, 20SS	—	—	1-8 bit, 1-WDT	—	20	—	—	—	—	—	
PIC16C558	3584 OTP (2048)	—	128	13	18P, 18SO, 18JW, 20SS	—	—	1-8 bit, 1-WDT	—	20	—	—	—	—	—	
PIC16C62B	3584 OTP (2048)	—	128	22	28SP, 28SO, 28SS, 28JW, 28ML	—	—	1-16 bit, 2-8 bit, 1-WDT	I^2C/SPI™	20	—	BOR	—	1/0	—	
PIC16C620A	896 OTP (512)	—	96	13	18P, 18SO, 18JW, 20SS	—	2	1-8 bit, 1-WDT	—	40	—	BOR	—	—	—	
PIC16CR620A	896 OTP (512)	—	96	13	18P, 18SO, 20SS	—	2	1-8 bit, 1-WDT	—	20	—	BOR	—	—	—	
PIC16C621A	1792 OTP (1024)	—	96	13	18P, 18SO, 18JW, 20SS	—	2	1-8 bit, 1-WDT	—	40	—	BOR	—	—	—	
PIC16C622A	3584 OTP (2048)	—	128	13	18P, 18SO, 18JW, 20SS	—	2	1-8 bit, 1-WDT	—	40	—	BOR	—	—	—	
PIC16C63A	7168 OTP (4096)	—	192	22	28SP, 28SO, 28SS, 28JW, 28ML	—	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	
PIC16CR63	7168 OTP (4096)	—	192	22	28SP, 28SO, 28SS	—	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	
PIC16C65B	7168 OTP (4096)	—	192	33	40P, 40JW, 44L, 44PQ, 44PT	—	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	PSP
PIC16CR65	7168 OTP (4096)	—	192	33	40P, 44L, 44PQ, 44PT	—	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	PSP
PIC16C717	3584 OTP (2048)	—	256	16	18P, 18SO, 18JW, 20SS	6x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	MI^{2}C/SPI	20	4 MHz	PBOR /PLVD	—	0/1	—	
PIC16CR72	3584 OTP (2048)	—	128	22	28SP, 28SO, 28SS	5x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	I^2C/SPI	20	—	BOR	—	1/0	—	
PIC16C745	14336 OTP (8192)	—	256	22	28SP, 28SO, 28JW	5x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	USART, low-speed USB	24	—	BOR	—	2/0	—	USB 1.1, 64 bytes dual port RAM

***Contact Microchip Technology for availability date.**
**** Requires ICD specific device with header module – refer to Development Tools.**
Abbreviations are found on the last page of the Selector Guide.

Mid-Range 8-Bit PICmicro® Microcontroller Family (14-bit Instruction Set)

	Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR /PLVD	ICD # of Breakpoints	CCP/ ECCP	nW	Other Features
							ADC Ch	Comp.	Timers/WDT	Serial I/O							
PIC16CXXX: Upwardly Compatible with PIC16C5X/PIC12CXXX, 4-12 Interrupts, 100-200 ns Instruction Executions, 35 Instructions, 4/5 Oscillator Selections, ICSP™ (except ROM) (continued)																	
	PIC16C765	14336 OTP (8192)	—	256	33	40P, 40JW, 44L, 44PT	8x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	USART, low-speed USB	24	—	BOR	—	2/0	—	USB 1.1, 64 bytes dual port RAM, PSP
	PIC16C770	3584 OTP (2048)	—	256	16	20P, 20SO, 20JW, 20SS	6x12-bit	—	1-16 bit, 2-8 bit, 1-WDT	MI^{2}C/SPI	20	4 MHz	PBOR /PLVD	—	0/1	—	
	PIC16C771	7168 OTP (4096)	—	256	16	20P, 20SO, 20JW, 20SS	6x12-bit	—	1-16 bit, 2-8 bit, 1-WDT	MI^{2}C/SPI	20	4 MHz	PBOR /PLVD	—	0/1	—	
	PIC16C773	7168 OTP (4096)	—	256	22	28SP, 28SO, 28SS, 28JW	6x12-bit	—	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	20	—	PBOR /PLVD	—	2/0	—	
	PIC16C774	7168 OTP (4096)	—	256	33	40P, 40JW, 44L, 44PQ, 44PT	10x12-bit	—	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	20	—	PBOR /PLVD	—	2/0	—	PSP
	PIC16C781	1792 OTP (1024)	—	128	16	20P, 20SO, 20SS, 20JW	8x8-bit	2	1-16 bit, 2-8 bit, 1-WDT	—	20	4 MHz	PBOR	—	—	—	Op Amp, PSMC, DAC
	PIC16C782	3584 OTP (2048)	—	128	16	20P, 20SO, 20SS, 20JW	8x8-bit	2	1-16 bit, 2-8 bit, 1-WDT	—	20	4 MHz	PBOR /PLVD	—	—	—	Op Amp, PSMC, DAC
	PIC16C925	7168 OTP (4096)	—	176	52	68CL, 68L, 64PT	5x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	I^{2}C/SPI	20	—	BOR	—	1/0	—	LCD module, static, 1/2, 1/3, 1/4 multiplex
	PIC16C926	14336 OTP (8192)	—	336	52	68CL, 68L, 64PT	5x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	I^{2}C/SPI	20	—	BOR	—	1/0	—	LCD module, static, 1/2, 1/3, 1/4 multiplex
PIC16FXXX: Migration to PIC16CXXX/PIC16C5X/PIC12CXXX, 17 Interrupts, 200 ns Instruction Executions, 33/35 Instructions, 4 Oscillator Selections, ICSP™ (except ROM)																	
	PIC16F627A	1792 StdFl (1024)	128	224	16	18P, 18SO, 20SS, 28ML	—	2	1-16 bit, 2-8 bit, 1-WDT	AUSART	20	4 MHz	BOR	1**	1/0	✓	
	PIC16F628A	3584 StdFl (2048)	128	224	16	18P, 18SO, 20SS, 28ML	—	2	1-16 bit, 2-8 bit, 1-WDT	AUSART	20	4 MHz	BOR	1**	1/0	✓	
	PIC16F648A	7168 StdFl (4096)	256	256	16	18P, 18SO, 20SS, 28ML	—	2	1-16 bit, 2-8 bit, 1-WDT	AUSART	20	4 MHz	BOR	1**	1/0	✓	
	PIC16F630	1792 StdFl (1024)	128	64	12	14P, 14SL, 14ST	—	1	1-8-bit, 1-16 bit, 1-WDT	—	20	4 MHz	BOR	1**	—	—	
	PIC16F636	3584 StdFl (2048)	256	128	12	14P, 14SL, 14ST	—	2	1-8 bit, 1-16 bit, 1-WDT	—	20	8 MHz	BOR/ PLVD	1**	—	✓	KEELOQ® hardware peripheral
NEW	PIC16F639*	3584 StdFl (2048)	256	128	12	20P, 20SO, 20SS	—	2	1-16 bit, 1-8 bit, 1-WDT	—	20	8 MHz	BOR	1**	—	✓	Transponder Analog Front End, KEELOQ® hardware peripheral
	PIC16F676	1792 StdFl (1024)	128	64	12	14P, 14SL, 14ST	8x10-bit	1	1-8 bit, 1-16 bit, 1-WDT	—	20	4 MHz	BOR	1**	—	—	
	PIC16F684	3584 StdFl (2048)	256	128	12	14P, 14SL, 14ST	8x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	—	20	8 MHz	BOR	1**	0/1	✓	
NEW	PIC16F685*	7168 StdFl (4096)	256	256	18	20P, 20SO, 20SS	12 x 10-bit	2	1-16 bit, 2-8 bit, 1-WDT	—	20	8 MHz	BOR	1**	0/1	✓	
NEW	PIC16F687*	3584 StdFl (2048)	256	128	18	20P, 20SO, 20SS	12 x 10-bit	2	1-16 bit, 1-8 bit, 1-WDT	EUSART, I^{2}C/SPI	20	8 MHz	BOR	1**	—	✓	
	PIC16F688	7168 StdFl (4096)	256	256	12	14P, 14SL, 14ST	8x10-bit	2	1-8 bit, 1-16 bit, 1-WDT	EUSART	20	8 MHz	BOR	1**	—	✓	
NEW	PIC16F689*	7168 StdFl (4096)	256	256	18	20P, 20SO, 20SS	12x10-bit	2	1-16 bit, 1-8 bit, 1-WDT	EUSART, I^{2}C/SPI	20	8 MHz	BOR	1**	—	✓	

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Abbreviations are found on the last page of the Selector Guide.

Mid-Range 8-Bit PICmicro® Microcontroller Family (14-bit Instruction Set)

	Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR /PLVD	ICD # of Breakpoints	CCP/ ECCP	nW	Other Features
							ADC Ch	Comp.	Timers/WDT	Serial I/O							
	PIC16FXXX: Migration to PIC16CXXX/PIC16C5X/PIC12CXXX, 17 Interrupts, 200 ns Instruction Execution, 33/35 Instructions, 4 Oscillator Selections, ICSP™ (except ROM) (continued)																
NEW	PIC16F690*	7168 StdFl (4096)	256	256	18	20P, 20SO, 20SS	12x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	EUSART, I^2C, SPI	20	8 MHz	BOR	1**	0/1	✓	
	PIC16F716	3584 StdFl (2048)	—	128	13	18P, 18SO, 20SS	4x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	—	20	—	BOR	1**	0/1	—	
	PIC16F72	3584 StdFl (2048)	—	128	22	28SP, 28SO, 28SS, 28ML	5x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	I^2C/SPI	20	—	BOR	—	1/0	—	
	PIC16F73	7168 StdFl (4096)	—	192	22	28SP, 28SO, 28SS, 28ML	5x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	
	PIC16F737	7168 StdFl (4096)	—	368	25	28SP, 28SO, 28SS, 28ML	11x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^2C/SPI	20	8 MHz	PBOR /PLVD	1	3/0	✓	
	PIC16F74	7168 StdFl (4096)	—	192	33	40P, 44ML, 44L, 44PT	8x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	PSP
	PIC16F747	7168 StdFl (4096)	—	368	36	40P, 44PT, 44ML	14x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^2C/SPI	20	8 MHz	PBOR /PLVD	1	3/0	✓	PSP
	PIC16F76	14336 StdFl (8192)	—	368	22	28SP, 28SO, 28SS, 28ML	5x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	
	PIC16F767	14336 StdFl (8192)	—	368	25	28SP, 28SO, 28SS, 28ML	11x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^2C/SPI	20	8 MHz	PBOR /PLVD	1	3/0	✓	
	PIC16F77	14336 StdFl (8192)	—	368	33	40P, 44ML, 44L, 44PT	8x8-bit	—	1-16 bit, 2-8 bit, 1-WDT	USART, I^2C/SPI	20	—	BOR	—	2/0	—	PSP
	PIC16F777	14336 StdFl (8192)	—	368	36	40P, 44PT, 44ML	14x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^2C/SPI	20	8 MHz	PBOR /PLVD	1	3/0	✓	PSP
NEW	PIC16F785*	3584 StdFl (2048)	256	128	18	20P, 20SO, 20SS	12x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	—	20	8 MHz	BOR	1**	1/0	✓	2 phase PWM, 2 x OpAmp, VREF
	PIC16F818	1792 EnhFl (1024)	128	128	16	18P, 18SO, 20SS, 28ML	5x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	I^2C/SPI	20	8 MHz	BOR	1	1/0	✓	
	PIC16F819	3584 EnhFl (2048)	256	256	16	18P, 18SO, 20SS, 28ML	5x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	I^2C/SPI	20	8 MHz	BOR	1	1/0	✓	
	PIC16F84A	1792 StdFl (1024)	64	68	13	18P, 18SO, 20SS	—	—	1-8 bit, 1-WDT	—	20	—	—	—	—	—	
	PIC16F87	7168 EnhFl (4096)	256	368	16	18P, 18SO, 20SS, 28ML	—	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, I^2C/SPI	20	8 MHz	BOR	1	1/0	✓	
	PIC16F870	3584 EnhFl (2048)	64	128	22	28SP, 28SO, 28SS	5x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	AUSART	20	—	BOR	1	1/0	—	
	PIC16F871	3584 EnhFl (2048)	64	128	33	40P, 44L, 44PT	8x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	AUSART	20	—	BOR	1	1/0	—	PSP
	PIC16F872	3584 EnhFl (2048)	64	128	22	28SP, 28SO, 28SS	5x10-bit	—	1-16 bit, 2-8 bit, 1-WDT	MI^2C/SPI	20	—	BOR	1	1/0	—	
	PIC16F873A	7168 EnhFl (4096)	128	192	22	28SP, 28SO, 28SS, 28ML	5x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^2C/SPI	20	—	BOR	1	2/0	—	
	PIC16F874A	7168 EnhFl (4096)	128	192	33	40P, 44ML, 44L, 44PT	8x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^2C/SPI	20	—	BOR	1	2/0	—	PSP

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Mid-Range 8-Bit PICmicro® Microcontroller Family (14-bit Instruction Set)

	Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR /PLVD	ICD # of Breakpoints	CCP/ ECCP	nW	Other Features
							ADC Ch	Comp.	Timers/WDT	Serial I/O							
	PIC16FXXX: Migration to PIC16CXXX/PIC16C5X/PIC12CXXX, 17 Interrupts, 200 ns Instruction Execution, 33/35 Instructions, 4 Oscillator Selections, ICSP™ (except ROM) (continued)																
	PIC16F876A	14336 EnhFl (8192)	256	368	22	28SP, 28SO, 28SS, 28ML	5x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	20	—	BOR	1	2/0	—	
	PIC16F877A	14336 EnhFl (8192)	256	368	33	40P, 44ML, 44L, 44PT	8x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	20	—	BOR	1	2/0	—	PSP
	PIC16F88	7168 EnhFl (4096)	256	368	16	18P, 18S0, 20SS, 28ML	7x10-bit	2	1-16 bit, 2-8 bit, 1-WDT	AUSART, I^{2}C/SPI	20	8 MHz	BOR	1	1/0	✓	
NEW	PIC16F913*	7168 StdFl (4096)	256	256	25	28P, 28SO, 28SS, 28ML	5x10-bit	2	2-8 bit, 1-16 bit	AUSART, I^{2}C/SPI	20	8 MHz	BOR/ PLVD	1	1/0	✓	Integrated LCD control modules with 60 segments
NEW	PIC16F914*	7168 StdFl (4096)	256	256	36	40P, 44PT, 44ML	8x10-bit	2	2-8 bit, 1-16 bit	AUSART, I^{2}C/SPI	20	8 MHz	BOR/ PLVD	1	2/0	✓	Integrated LCD control modules with 96 segments
NEW	PIC16F916*	14336 StdFl (8192)	256	352	25	28P, 28SO, 28SS, 28ML	5x10-bit	2	2-8 bit, 1-16 bit	AUSART, I^{2}C/SPI	20	8 MHz	BOR/ PLVD	1	1/0	✓	Integrated LCD control modules with 60 segments
NEW	PIC16F917*	14336 StdFl (8192)	256	352	36	40P, 44PT, 44ML	8x10-bit	2	2-8 bit, 1-16 bit	AUSART, I^{2}C/SPI	20	8 MHz	BOR/ PLVD	1	2/0	✓	Integrated LCD control modules with 96 segments

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Abbreviations are found on the last page of the Selector Guide.

High Performance 8-Bit PICmicro® Microcontroller Family (16-bit Instruction Set)

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR/ PLVD	ICD # of Breakpoints	CCP/ECCP	nW	Other Features
						ADC Ch	Comp.	Timers/WDT	Serial I/O							
PIC18FXXX Flash MCUs: Upwardly Compatible with PIC18CXXX/PIC17C7XX/PIC16CXX/PIC16C5X/PIC12CXXX, 77 Instructions, C Compiler Efficient Instruction Set, 10 MIPS, VDD = 2.0 - 5.5V (except ROM)																
PIC18C601	ROM-less	—	1536	26	64PT, 68L	8x10-bit	—	3-16 bit, 1-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	25	—	—	—	2/0	—	256KB EMA, Bootloader RAM
PIC18C801	ROM-less	—	1536	37	80PT, 84L	12x10-bit	—	3-16 bit, 1-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	25	—	—	—	2/0	—	2MB EMA, Bootloader RAM
PIC18F1220	4096 EnhFl (2048)	256	256	16	18P, 18SO, 20SS, 28ML	7x10-bit	—	3-16 bit, 1-8 bit, 1-WDT	EUSART	40	8 MHz	PBOR/ PLVD	1	0/1	✓	
PIC18F1320	8192 EnhFl (4096)	256	256	16	18P, 18SO, 20SS, 28ML	7x10-bit	—	3-16 bit, 1-8 bit, 1-WDT	EUSART	40	8 MHz	PBOR/ PLVD	1	0/1	✓	
PIC18F2220	4096 EnhFl (2048)	256	512	25	28SP, 28SO	10x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	1	2/0	✓	
PIC18F2320	8192 EnhFl (4096)	256	512	25	28SP, 28SO	10x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	1	2/0	✓	
PIC18F2331	8192 EnhFl (4096)	256	768	24	28SP, 28SO, 28MM	5x10-bit, 200 ksps	—	3-16 bit, 1-8 bit, 1-WDT	EUSART, I^{2}C/SPI	40	8 MHz	PBOR/ PLVD	1	2/0	✓	6 channel 14-bit Motor Control PWMs, 2-ch Quadrature Encoder

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Abbreviations are found on the last page of the Selector Guide.

High Performance 8-Bit PICmicro® Microcontroller Family (16-bit Instruction Set)

	Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR/ PLVD	ICD # of Breakpoints	CCP/ECCP	nW	Other Features
							ADC Ch	Comp.	Timers/WDT	Serial I/O							
	PIC18FXXX Flash MCUs: Upwardly Compatible with PIC18CXXX/PIC17C7XX/PIC16CXX/PIC16C5X/PIC12CXXX, 77 Instructions, C Compiler Efficient Instruction Set, 10 MIPS, V_{DD} = 2.0 - 5.5V (except ROM) (continued)																
	PIC18F2410	16384 StdFl (8192)	—	768	25	28SP, 28SO, 28ML	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
	PIC18F2420	16384 EnhFl (8192)	256	768	25	28SP, 28SO, 28ML	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
	PIC18F2431	16384 EnhFl (8192)	256	768	24	28SP, 28SO, 28MM	5x10-bit, 200 ksps	—	3-16 bit, 1-8 bit, 1-WDT	EUSART, I^{2}C/SPI	40	8 MHz	PBOR/ PLVD	1	2/0	✓	6 channel 14-bit Motor Control PWMs, 2-ch Quadrature Encoder
NEW	PIC18F2455	24576 EnhFl (12288)	256	2048	23	28SP, 28SO	11x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	USB 2.0, MI^{2}C/SPI, EUSART	48	8 MHz	PBOR/ PLVD	3	2/0	✓	Full-speed USB 2.0 Compliant
NEW	PIC18F2480	16384 EnhFl (8192)	256	768	25	28SP, 28SO, 28ML	8x10-bit 100 ksps	—	3-16 bit, 1-8 bit, 1-WDT	CAN 2.0B, MI^{2}C/SPI, EUSART	40	8 MHz	PBOR/ PLVD	3	1/0	✓	ECAN
	PIC18F2510	32768 StdFl (16384)	—	1536	25	28SP, 28SO, 28ML	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
	PIC18F2520	32768 EnhFl (16384)	256	1536	25	28SP, 28SO, 28ML	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
	PIC18F2515	49152 StdFl (24576)	—	3968	25	28SP, 28SO	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
	PIC18F2525	49152 EnhFl (24576)	1024	3968	25	28SP, 28SO	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
NEW	PIC18F2550	32768 EnhFl (16384)	256	2048	23	28SP, 28SO	11x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	USB 2.0, MI^{2}C/SPI, EUSART	48	8 MHz	PBOR/ PLVD	3	2/0	✓	Full-speed USB 2.0 Compliant
NEW	PIC18F2580	32768 EnhFl (16384)	256	1536	25	28SP, 28SO, 28ML	8x10-bit 100 ksps	—	3-16 bit, 1-8 bit, 1-WDT	CAN 2.0B, MI^{2}C/SPI, EUSART	40	8 MHz	PBOR/ PLVD	3	1/0	✓	ECAN
	PIC18F2585	49152 EnhFl (24576)	1024	3328	25	28SP, 28SO	8x10-bit 100 ksps	—	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	1/0	✓	ECAN
	PIC18F2610	65536 StdFl (32768)	—	3968	25	28SP, 28SO	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
	PIC18F2620	65536 EnhFl (32768)	1024	3968	25	28SP, 28SO	10x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/0	✓	
	PIC18F2680	65536 EnhFl (32768)	1024	3328	25	28SP, 28SO	8x10-bit 100 ksps	—	3-16 bit, 1-8 bit, 1-WDT	CAN 2.0B, MI^{2}C/SPI, EUSART	40	8 MHz	PBOR/ PLVD	3	1/0	✓	ECAN
	PIC18F4220	4096 EnhFl (2048)	256	512	36	40P, 44ML, 44PT	13x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	1	1/1	✓	PSP
	PIC18F4320	8192 EnhFl (4096)	256	512	36	40P, 44ML, 44PT	13x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	AUSART, MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	1	1/1	✓	PSP

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High Performance 8-Bit PICmicro® Microcontroller Family (16-bit Instruction Set)

	Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR/ PLVD	ICD # of Breakpoints	CCP/ECCP	nW	Other Features
							ADC Ch	Comp.	Timers/WDT	Serial I/O							
	PIC18FXXX Flash MCUs (x16): Upwardly Compatible with PIC18CXXX/PIC17C7XX/PIC16CXX/PIC16C5X/PIC12CXXX, 77 Instructions, C Compiler Efficient Instruction Set, 10 MIPS, VDD = 2.0 - 5.5V (except ROM) (continued)																
	PIC18F4331	8192 EnhFl (4096)	256	768	36	40P, 44ML, 44PT	9x10-bit 200 ksps	—	3-16 bit, 1-8 bit, 1-WDT	EUSART, I²C/SPI	40	8 MHz	PBOR/ PLVD	1	2/0	✓	8 channel 14-bit Motor Control PWMs, 2-ch Quadrature Encoder
	PIC18F4410	16384 StdFl (8192)	—	768	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
	PIC18F4420	16384 EnhFl (8192)	256	768	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
	PIC18F4431	16384 EnhFl (8192)	256	768	36	40P, 44ML, 44PT	9x10-bit 200 ksps	—	3-16 bit, 1-8 bit, 1-WDT	EUSART, I²C/SPI	40	8 MHz	PBOR/ PLVD	1	2/0	✓	8 channel 14-bit Motor Control PWMs, 2-ch Quadrature Encoder
NEW	PIC18F4455	24576 EnhFl (12288)	256	2048	34	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	USB 2.0, MI²C/SPI, EUSART	48	8 MHz	PBOR/ PLVD	3	1/1	✓	Full-speed USB 2.0 Compliant, Streaming Port
NEW	PIC18F4480	16384 EnhFl (8192)	256	768	36	40P, 44ML, 44PT	11x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	CAN 2.0B, MI²C/SPI, EUSART	40	8 MHz	PBOR/ PLVD	3	1/1	✓	ECAN
	PIC18F4510	32768 StdFl (16384)	—	1536	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
	PIC18F4520	32768 EnhFl (16384)	256	1536	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
	PIC18F4515	49152 StdFl (24576)	—	3968	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
	PIC18F4525	49152 EnhFl (24576)	1024	3968	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
NEW	PIC18F4580	32768 EnhFl (16384)	256	1536	36	40P, 44ML, 44PT	11x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	CAN 2.0B, MI²C/SPI, EUSART	40	8 MHz	PBOR/ PLVD	3	1/1	✓	ECAN
NEW	PIC18F4550	32768 EnhFl (16384)	256	2048	34	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	USB 2.0, MI²C/SPI, EUSART	48	8 MHz	PBOR/ PLVD	3	1/1	✓	Full-speed USB 2.0 Compliant, Streaming Port
	PIC18F4585	49152 EnhFl (24576)	1024	3328	36	40P, 44ML, 44PT	11x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	CAN 2.0B, MI²C/SPI, EUSART	40	8 MHz	PBOR/ PLVD	3	1/1	✓	ECAN
	PIC18F4610	65536 StdFl (32768)	—	3968	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
	PIC18F4620	65536 EnhFl (32768)	1024	3968	36	40P, 44ML, 44PT	13x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI²C/SPI	40	8 MHz	PBOR/ PLVD	3	1/1	✓	PSP
	PIC18F4680	65536 EnhFl (32768)	1024	3328	36	40P, 44ML, 44PT	11x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	CAN 2.0B, MI²C/SPI, EUSART	40	8 MHZ	PBOR/ PLVD	3	1/1	✓	ECAN
	PIC18F6310	8192 StdFl (4096)	—	768	54	64PT	12x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	MI²C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	3/0	✓	EMA

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							ADC Ch	Comp.	Timers/WDT	Serial I/O							
	PIC18FXXX Flash MCUs (x16): Upwardly Compatible with PIC18CXXX/PIC17C7XX/PIC16CXX/PIC16C5X/PIC12CXXX, 77 Instructions, C Compiler Efficient Instruction Set, 10 MIPS, V_{DD} = 2.0 - 5.5V (except ROM) (continued)																
	PIC18F6410	16384 StdFl (8192)	—	768	54	64PT	12x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	MI^{2}C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	3/0	✓	EMA
	PIC18F6390	8192 StdFl (4096)	—	768	50	64PT	12x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	MI^{2}C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	2/0	✓	LCD: up to 128 Segments
	PIC18F6490	16384 StdFl (8192)	—	768	50	64PT	12x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	MI^{2}C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	2/0	✓	LCD: up to 128 Segments
	PIC18F6520	32768 EnhFl (16384)	1024	2048	52	64PT	12x10-bit	2	3-16 bit, 2-8 bit, 1-WDT	2x AUSART, MI^{2}C/SPI	40	—	PBOR/ PLVD	1	5/0	—	PSP
	PIC18F6525	49152 EnhFl (24576)	1024	3840	53	64PT	12x10-bit	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, MI^{2}C/SPI	40	—	PBOR/ PLVD	1	2/3	—	PSP
NEW	PIC18F6527*	49152 EnhFl (24576)	1024	3936	54	64PT	12x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	✓	PSP
	PIC18F6585	49152 EnhFl (24576)	1024	3328	53	64PT, 68L	12x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI, CAN 2.0B	40	—	PBOR/ PLVD	1	1/1	—	ECAN
	PIC18F6621	65536 EnhFl (32768)	1024	3840	53	64PT	12x10-bit	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, MI^{2}C/SPI	40	—	PBOR/ PLVD	1	2/3	—	PSP
NEW	PIC18F6622*	65536 EnhFl (32768)	1024	3936	54	64PT	12x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	✓	PSP
NEW	PIC18F6627	98304 EnhFl (49152)	1024	3936	54	64PT	12x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	✓	PSP
	PIC18F6680	65536 EnhFl (32768)	1024	3328	53	64PT, 68L	12x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI, CAN 2.0B	40	—	PBOR/ PLVD	1	1/1	—	ECAN
	PIC18F6720	131072 EnhFl (65536)	1024	3840	52	64PT	12x10-bit	2	3-16 bit, 2-8 bit, 1-WDT	2x AUSART, MI^{2}C/SPI	25	—	PBOR/ PLVD	1	5/0	—	PSP
NEW	PIC18F6722	131072 EnhFl (65536)	1024	3936	54	64PT	12x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	✓	PSP
	PIC18F8310	8192 StdFl (4096)	—	768	70	80PT	12x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	MI^{2}C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	3/0	✓	EMA
	PIC18F8410	16384 StdFl (8192)	—	768	70	80PT	12x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	MI^{2}C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	3/0	✓	EMA
	PIC18F8390	8192 StdFl (4096)	—	768	66	80PT	12x10-bit 100 ksps	2	3-16 bit, 1-8 bit, 1-WDT	MI^{2}C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	2/0	✓	LCD: up to 192 Segments

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

High Performance 8-Bit PICmicro® Microcontroller Family (16-bit Instruction Set)

	Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog		Digital		Max. Speed MHz	IntOSC	BOR/ PBOR/ PLVD	ICD # of Breakpoints	CCP/ECCP	nW	Other Features
							ADC Ch	Comp.	Timers/WDT	Serial I/O							
	PIC18FXXX Flash MCUs: Upwardly Compatible with PIC18CXXX/PIC17C7XX/PIC16CXX/PIC16C5X/PIC12CXXX, 77 Instructions, C Compiler Efficient Instruction Set, 10 MIPS, VDD = 2.0 - 5.5V (except ROM) (continued)																
	PIC18F8490	16384 StdFl (8192)	—	768	66	80PT	12x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	MI^{2}C/SPI, EUSART, AUSART	40	8 MHz	PBOR/ PLVD	3	2/0	✓	LCD: up to 192 Segments
	PIC18F8520	32768 EnhFl (16384)	1024	2048	68	80PT	16x10-bit	2	2-8 bit, 3-16 bit, 1-WDT	2x AUSART, MI^{2}C/SPI	40	—	PBOR/ PLVD	1	5/0	—	PSP, EMA
	PIC18F8525	49152 EnhFl (24576)	1024	3840	69	80PT	16x10-bit	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, MI^{2}C/SPI	40	—	PBOR/ PLVD	1	2/3	—	PSP, EMA
NEW	PIC18F8527*	49152 EnhFl (24576)	1024	3936	70	80PT	16x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	3	PSP, EMA
	PIC18F8585	49152 EnhFl (24576)	1024	3328	69	80PT	16x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI, CAN2.0B	40	—	PBOR/ PLVD	1	1/1	—	ECAN, EMA
	PIC18F8621	65536 EnhFl (32768)	1024	3840	69	80PT	16x10-bit	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, MI^{2}C/SPI	40	—	PBOR/ PLVD	1	2/3	—	PSP, EMA
NEW	PIC18F8622*	65536 EnhFl (32768)	1024	3936	70	80PT	16x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI2C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	3	PSP, EMA
NEW	PIC18F8627	98304 EnhFl (49152)	1024	3936	70	80PT	16x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	3	PSP, EMA
	PIC18F8680	65536 EnhFl (32768)	1024	3328	69	80PT	16x10-bit	2	3-16 bit, 1-8 bit, 1-WDT	EUSART, MI^{2}C/SPI, CAN2.0B	40	—	PBOR/ PLVD	1	1/1	—	ECAN, EMA
	PIC18F8720	131072 EnhFl (65536)	1024	3840	68	80PT	16x10-bit	2	3-16 bit, 2-8 bit, 1-WDT	2x AUSART, MI^{2}C/SPI	25	—	PBOR/ PLVD	1	5/0	—	PSP, EMA
NEW	PIC18F8722	131072 EnhFl (65536)	1024	3936	70	80PT	16x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	8 MHz	PBOR/ PLVD	3	2/3	3	PSP, EMA
	PIC18FXXJXX Flash MCUs: Upwardly Compatible with PIC18CXXX/PIC17C7XX/PIC16CXX/PIC16C5X/PIC12CXXX, 77 Instructions, C Compiler Efficient Instruction Set, 10 MIPS, VDD = 2.0 - 3.6V																
NEW	PIC18F66J15*	98304 StdFl (49152)	—	3936	51	64PT	11x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	32 kHz	BOR	3	2/3	✓	PSP
NEW	PIC18F67J10*	131072 StdFL (65536)	—	3936	51	64PT	11x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	32 kHz	BOR	3	2/3	✓	PSP
NEW	PIC18F86J15*	98304 StdFL (49152)	—	3936	67	80PT	15x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	32 kHz	BOR	3	2/3	✓	PSP, EMA
NEW	PIC18F87J10*	131072 StdFl (65536)	—	3936	67	80PT	15x10-bit 100 ksps	2	3-16 bit, 2-8 bit, 1-WDT	2x EUSART, 2x MI^{2}C/SPI	40	32 kHz	BOR	3	2/3	✓	PSP, EMA

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

CURRENT dsPIC® DIGITAL SIGNAL CONTROLLER (DSC) PRODUCTS

Product	Program (FLASH) KBytes	Memory (FLASH) KWords	EE Bytes	SRAM Bytes	I/O Pins (max.)	Packages	A/D 12-bit 100 KSPS	A/D 10-bit 500 KSPS	Timer 16-bit	Input Cap	Output Comp/ Std PWM	Motor Control PWM	Quad Enc.	UART	SPI™	I^2C™	CAN	Codec Interface
dsPIC30F Motor Control and Power Conversion Family																		
dsPIC30F2010	12	4	1024	512	20	28SO, 28SP, 28MM	—	6 ch	3	4	2	6	✓	1	1	1	—	—
dsPIC30F3010	24	8	1024	1024	20	28SO, 28SP, 44ML (8x8)	—	6 ch	5	4	2	6	✓	1	1	1	—	—
dsPIC30F4012	48	16	1024	2048	20	28SO, 28SP, 44ML (8x8)	—	6 ch	5	4	2	6	✓	1	1	1	1	—
dsPIC30F3011	24	8	1024	1024	30	40P, 44PT, 44ML (8x8)	—	9 ch	5	4	4	6	✓	2	1	1	—	—
dsPIC30F4011	48	16	1024	2048	30	40P, 44PT, 44ML (8x8)	—	6 ch	5	4	4	6	✓	2	1	1	1	—
dsPIC30F6010	144	48	4096	8192	68	80PF	—	16 ch	5	8	8	8	✓	2	2	1	2	—
dsPIC30F General Purpose Family																		
dsPIC30F3014	24	8	1024	2048	30	40P, 44PT, 44ML (8x8)	13 ch	—	3	2	2	No	No	2	1	1	—	—
dsPIC30F4013	48	16	1024	2048	30	40P, 44PT, 44ML (8x8)	13 ch	—	5	4	4	No	No	2	1	1	1	AC97, I^2S
dsPIC30F5011	66	22	1024	4096	52	64PT	16 ch	—	5	8	8	No	No	2	2	1	2	AC97, I^2S
dsPIC30F6011	132	44	2048	6144	52	64PF	16 ch	—	5	8	8	No	No	2	2	1	2	—
dsPIC30F6012	144	48	4096	8192	52	64PF	16 ch	—	5	8	8	No	No	2	2	1	2	AC97, I^2S
dsPIC30F5013	66	22	1024	4096	68	80PT	16 ch	—	5	8	8	No	No	2	2	1	2	AC97, I^2S
dsPIC30F6013	132	44	2048	6144	68	80PF	16 ch	—	5	8	8	No	No	2	2	1	2	—
dsPIC30F6014	144	48	4096	8192	68	80PF	16 ch	—	5	8	8	No	No	2	2	1	2	AC97, I^2S

Abbreviations are found on the last page of the Selector Guide.

	Product	Program (FLASH) KBytes	Memory (FLASH) KWords	EE Bytes	SRAM Bytes	I/O Pins (max.)	Packages	A/D 12-bit 100 KSPS	A/D 10-bit 500 KSPS	Timer 16-bit	Input Cap	Output Comp/ Std PWM	Motor Control PWM	Quad Enc.	UART	SPI™	I^2C™	CAN	Codec Interface
	dsPIC30F Sensor Family																		
NEW	dsPIC30F2011	12	4	0	1024	12	18SO, 18P, 28ML (6x6)	8 ch	—	3	2	2	No	No	1	1	1	—	—
NEW	dsPIC30F3012	24	8	1024	2048	12	18SO, 18P, 44ML (8x8)	8 ch	—	3	2	2	No	No	1	1	1	—	—
NEW	dsPIC30F2012	12	4	0	1024	12	28SO, 28SP, 28ML (6x6)	10 ch	—	3	2	2	No	No	1	1	1	—	—
NEW	dsPIC30F3013	24	8	1024	2048	12	28SO, 28SP, 44ML (8x8)	10 ch	—	3	2	2	No	No	2	1	1	—	—

Abbreviations are found on the last page of the Selector Guide.

FOCUSED SOLUTIONS
PICmicro® and dsPIC® DSC MICROCONTROLLER FAMILY PRODUCTS

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed MHz	ICD # of Breakpoints	Function-Specific Features					Development Boards
										ISO-16845 Tested	Transmit Buffers	Receive Buffers	Configurable RX/TX	Acceptance Filters/Mask	
CAN Solutions															
PIC18F2480	16384 EnhFl (8192)	256	768	25	28SP, 28SO, 28ML	ADC	EUSART, CCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F2580	32768 EnhFl (16384)	256	1536	25	28SP, 28SO, 28ML	ADC	EUSART, CCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F2585	49152 EnhFl (24576)	1024	3328	25	28SP, 28SO	ADC	EUSART, CCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F2680	65536 EnhFl (32768)	1024	3328	25	28SP, 28SO	ADC	EUSART, CCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F4480	16384 EnhFl (8192)	256	768	36	40P, 44PT, 44ML	ADC/Comp	EUSART, CCP/ECCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F4580	32768 EnhFl (16384)	256	1536	36	40P, 44PT, 44ML	ADC/Comp	EUSART, CCP/ECCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F4585	49152 EnhFl (24576)	1024	3328	36	40P, 44PT, 44ML	ADC/Comp	EUSART, CCP/ECCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F4680	65536 EnhFl (32768)	1024	3328	36	40P, 44PT, 44ML	ADC/Comp	EUSART, CCP/ECCP	40	3	Planned	3	2	6	16/2	DM163011 PICDEM™ CAN-LIN 2
PIC18F6585	49152 EnhFl (24576)	1024	3328	53	64PT, 68L	ADC/Comp	EUSART, CCP/ECCP	40	1	Yes	3	2	6	16/2	DM163015 PICDEM™ CAN-LIN 3
PIC18F6680	65536 EnhFl (32768)	1024	3328	53	64PT, 68L	ADC/Comp	EUSART, CCP/ECCP	40	1	Yes	3	2	6	16/2	DM163015 PICDEM™ CAN-LIN 3
PIC18F8585	49152 EnhFl (24576)	1024	3328	69	80PT	ADC/Comp	EUSART, CCP/ECCP	40	1	Yes	3	2	6	16/2	DM163015 PICDEM™ CAN-LIN 3
PIC18F8680	65536 EnhFl (32768)	1024	3328	69	80PT	ADC/Comp	EUSART, CCP/ECCP	40	1	Yes	3	2	6	16/2	DM163015 PICDEM™ CAN-LIN 3

Refer to Design pages on www.microchip.com for further details.
Abbreviations are found on the last page of the Selector Guide.

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed MHz	ICD-# of Breakpoints	Function-Specific Features					Development Boards
										IEEE.802.3 Complaint	MAC	PHY	TX/RX Buffer (bytes)	Ethernet Voltage Range (V)	
Ethernet Solutions - Integrated															
PIC18F66J60*	16384 EnhFl (8192)	—	3808	39	64PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	
PIC18F66J65*	32768 EnhFl (16384)	—	3808	39	64PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	
PIC18F67J60*	49152 EnhFl (24576)	—	3808	39	64PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	
PIC18F86J60*	65536 EnhFl (32768)	—	3808	55	80PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	
PIC18F86J65*	16384 EnhFl (8192)	—	3808	55	80PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	

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

PICmicro® and dsPIC® DSC MCU Products

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed MHz	ICD-# of Breakpoints	Function-Specific Features					Development Boards
										IEEE.802.3 Complaint	MAC	PHY	TX/RX Buffer (bytes)	Ethernet Voltage Range (V)	
Ethernet Solutions - Integrated (continued)															
PIC18F87J60*	32768 EnhFl (16384)	—	3808	55	80PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	
PIC18F96J60*	49152 EnhFl (24576)	—	3808	70	100PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	
PIC18F96J65*	65536 EnhFl (32768)	—	3808	70	100PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	
PIC18F97J60*	49152 EnhFl (24576)	—	3808	70	100PT	ADC/Comp	EUSART, CCP/ECCP	42	3	Yes	Yes	10 BASE-T	8192	3.14 to 3.45	

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

NEW

Product	MAC	PHY	TX/RX Dual Port RAM Buffer	Interrupts	LEDs	Operating Voltage (V)	Temp. Range (°C)	Max. Speed MHz	Serial	Features	Package	Development Boards
Ethernet Solutions - Stand-Alone												
ENC28J60*	Yes	10 BASE-T	8KB	2	2	3.3	-40 to +85	25	SPI	Loop back test modes, auto-polarity	28SO, 28SS, 28ML	

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

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed MHz	ICD # of Breakpoints	Function-Specific Features					Development Boards
										Compliant	Speed	# of Endpoints	USB Buffer (bytes)	Streaming Port	
USB Solutions															
PIC16C745	14336 OTP (8192)	—	256	22	28SP, 28SO, 28JW	ADC	UART	24	—	USB 1.1	Low-speed (1.5Mbit/s)	16	64	—	DM163010, PICDEM™ USB
PIC16C765	14336 OTP (8192)	—	256	33	40P, 40JW, 44L, 44PT	ADC	UART	24	—	USB 1.1	Low-speed (1.5Mbit/s)	16	64	—	DM163010, PICDEM™ USB
PIC18F2455	24576 EnhFl (12288)	256	2048	24	28SP, 28SO, 28ML	ADC/Comp	EUSART, MI^{2}C/SPI	48	3	USB 2.0	Full-speed (12Mbit/s)	16	1024	—	DM163025 PICDEM™ FS-USB
PIC18F2550	32768 EnhFl (16384)	256	2048	24	28SP, 28SO, 28ML	ADC/Comp	EUSART, MI^{2}C/SPI	48	3	USB 2.0	Full-speed (12Mbit/s)	16	1024	—	DM163025 PICDEM™ FS-USB
PIC18F4455	24576 EnhFl (12288)	256	2048	36	40P, 44PT, 44ML	ADC/Comp	EUSART, MI^{2}C/SPI	48	3	USB 2.0	Full-speed (12Mbit/s)	16	1024	Yes	DM163025 PICDEM™ FS-USB
PIC18F4550	32768 EnhFl (16384)	256	2048	36	40P, 44PT, 44ML	ADC/Comp	EUSART, MI^{2}C/SPI	48	3	USB 2.0	Full-speed (12Mbit/s)	16	1024	Yes	DM163025 PICDEM™ FS-USB

Refer to Design pages on www.microchip.com for further details.
Abbreviations are found on the last page of the Selector Guide.

ACTIVE RF Solutions

rfPIC® Microcontrollers with UHF RF Transmitter, ICSP™

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed (MHz)	Function-Specific Specifications					Development Boards
									Modulation	Data Rate (kbps)	Output Power (dBm)	Operating Voltage (V)	Frequency Range (MHz)	
rfPIC12C509AF	1536 OTP (1024)	—	41	6	20JW, 20SS	—	1-8 bit Timer, WDT	4	FSK, ASK	40	2	2.5-5.5	310-440	
rfPIC12C509AG	1536 OTP (1024)	—	41	6	18JW, 18SO	—	1-8 bit Timer, WDT	4	ASK	40	2	2.5-5.5	310-440	
rfPIC12F675F	1792 StdFl (1024)	128	64	6	20SS	4x10-bit A/D, Comp	1-8 bit, 1-16 bit Timer, WDT	20	FSK, ASK	40	10	2.0-5.5	380-450	DV164102, rfPIC® Development Kit
rfPIC12F675H	1792 StdFl (1024)	128	64	6	20SS	4x10-bit A/D, Comp	1-8 bit, 1-16 bit Timer, WDT	20	FSK, ASK	40	10	2.0-5.5	850-930	DV164102, rfPIC® Development Kit
rfPIC12F675K	1792 StdFl (1024)	128	64	6	20SS	4x10-bit A/D, Comp	1-8 bit, 1-16 bit Timer, WDT	20	FSK, ASK	40	10	2.0-5.5	290-350	DV164102, rfPIC® Development Kit

rfHCS KEELOQ® Encoders with UHF RF Transmitter

Product	Transmission Code Length Bits	Code Hopping Bits	Programmable Encryption Key Bits	Packages	Protocols	Function Codes	Tunable OSC	CRC	Function-Specific Specifications				Development Boards
									Modulation	Output Power (dBm)	Operating Voltage (V)	Frequency Range (MHz)	
rfHCS362F	69	32	2 x 64	20SS	PWM, Manchester	4 x 15	✓	✓	FSK, ASK	2	2.2-5.5	310-440	DM303006, KEELOQ® Evaluation Kit II
rfHCS362G	69	32	2 x 64	18SO	PWM, Manchester	4 x 15	✓	✓	ASK	2	2.2-5.5	310-440	DM303006, KEELOQ® Evaluation Kit II

UHF RF Receiver

Product	Modulation	Data Rate (kbps)	Frequency Range (MHz)	Sensitivity dBm (FSK)	IF Frequency Range (MHz)	Operating Voltage (V)	Package	Development Boards
rfRXD0420	ASK, FSK, FM	80	300-450	-111	0.455-21.4	2.5-5.5	32LQ	DV164102, rfPIC® Development Kit
rfRXD0920	ASK, FSK, FM	80	800-930	-109	0.455-21.4	2.5-5.5	32LQ	DV164102, rfPIC® Development Kit

Refer to Design pages on www.microchip.com for further details.
Abbreviations are found on the last page of the Selector Guide.

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed MHz	ICD # of Breakpoints	LCD Function-Specific Features					Development Boards
										COMxSegment = # Segments	Drive in Sleep	Software Configurable Driver Pins	Direct Drive	Intl. Charge Pump	
LCD Solutions															
PIC16C925	7168 OTP (4096)	—	176	52	64PT, 68CL, 68L	ADC	I^2C/SPI	20	—	4x29 (116)	Yes	No	Yes	Yes	DM163003, PICDEM™ 3 LCD
PIC16C926	14336 OTP (8192)	—	336	52	64PT, 68CL, 68L	ADC	I^2C/SPI	20	—	4x29 (116)	Yes	No	Yes	Yes	DM163003, PICDEM™ 3 LCD
PIC16F913*	7168 EnhFl (4096)	256	256	25	28P, 28SO, 28SS, 28ML	ADC/Comp	AUSART, I^2C/SPI	20	1	4x15 (60)	Yes	Yes	Yes	No	
PIC16F914*	7168 EnhFl (4096)	256	256	36	40P, 44PT, 44ML	ADC/Comp	AUSART, I^2C/SPI	20	1	4x24 (96)	Yes	Yes	Yes	No	
PIC16F916*	14336 EnhFl (8192)	256	352	25	28P, 28SO, 28SS, 28ML	ADC/Comp	AUSART, I^2C/SPI	20	1	4x15 (60)	Yes	Yes	Yes	No	
PIC16F917*	14336 EnhFl (8192)	256	352	36	40P, 44PT, 44ML	ADC/Comp	AUSART, I^2C/SPI	20	1	4x24 (96)	Yes	Yes	Yes	No	
PIC18F6390	8192 StdFl (4096)	—	768	50	64PT	ADC/Comp	EUSART, AUSART, MI^{2}C/SPI	40	3	4x32 (128)	Yes	Yes	Yes	No	DM163028, PICDEM™ LCD Demo Board
PIC18F6490	16384 StdFl (8192)	—	768	50	64PT	ADC/Comp	EUSART, AUSART, MI^{2}C/SPI	40	3	4x32 (128)	Yes	Yes	Yes	No	DM163028, PICDEM™ LCD Demo Board
PIC18F8390	8192 StdFl (4096)	—	768	66	80PT	ADC/Comp	EUSART, AUSART, MI^{2}C/SPI	40	3	4x48 (192)	Yes	Yes	Yes	No	DM163028, PICDEM™ LCD Demo Board
PIC18F8490	16384 StdFl (8192)	—	768	66	80PT	ADC/Comp	EUSART, AUSART, MI^{2}C/SPI	40	3	4x48 (192)	Yes	Yes	Yes	No	DM163028, PICDEM™ LCD Demo Board

***Contact Microchip Technology Inc. for availability.**
Refer to Design pages on www.microchip.com for further details.
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Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed MHz	ICD # of Breakpoints	Function-Specific Features					Development Boards
										Timers	Input Capture	Output Comp/Std PWM	Motor Control PWM	Quadrature Encoder	
Motor Control Solutions															
PIC12F683	3584 StdFl (2048)	256	128	6	8P, 8SN, 8MF	ADC/Comp	—	20	1	1-16 bit, 2-8 bit, WDT	1	1x10 bit	—	—	PICkit™ 1
PIC16F684	3584 EnhFl (2048)	256	128	12	14P, 14SL, 14ST	ADC/Comp	—	20	1	1-16 bit, 2-8 bit, WDT	1	4x10 bit	—	—	PICkit™ 1
PIC16F716	3584 StdFl (2048)	—	128	13	18P, 18SO, 20SS	ADC	—	20	1	1-16 bit, 2-8 bit, WDT	1	4x10 bit	—	—	DM163022, PICDEM™ 2 Plus

*****Refer to dsPIC DSC Brochure for further details.**
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Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	RAM Bytes	I/O Pins	Packages	Analog Peripherals	Digital Peripherals	Max. Speed MHz	ICD # of Breakpoints	Function-Specific Features					Development Boards
										Timers	Input Capture	Output Comp/Std PWM	Motor Control PWM	Quadrature Encoder	
Motor Control Solutions (continued)															
PIC16F737	7168 StdFl (4096)	—	368	25	28SP, 28SO, 28SS, 28ML	ADC/Comp	USART, MI^{2}C/SPI	20	1	1-16 bit, 2-8 bit, WDT	3	3x10 bit	—	—	DM163022, PICDEM™ 2 Plus
PIC16F747	7168 StdFl (4096)	—	368	36	40P, 44PT, 44ML	ADC/Comp	USART, MI^{2}C/SPI	20	1	1-16 bit, 2-8 bit, WDT	3	3x10 bit	—	—	DM163022, PICDEM™ 2 Plus
PIC16F767	14336 StdFl (8192)	—	368	25	28SP, 28SO, 28SS, 28ML	ADC/Comp	USART, MI^{2}C/SPI	20	1	1-16 bit, 2-8 bit, WDT	3	3x10 bit	—	—	DM163022, PICDEM™ 2 Plus
PIC16F777	14336 StdFl (8192)	—	368	36	40P, 44PT, 44ML	ADC/Comp	USART, MI^{2}C/SPI	20	1	1-16 bit, 2-8 bit, WDT	3	3x10 bit	—	—	DM163022, PICDEM™ 2 Plus
PIC18F2331	8192 EnhFl (4096)	256	768	22	28SP, 28SO, 28MM	200 ksps ADC	EUSART, I^{2}C/SPI	40	1	3-16 bit, 1-8 bit, WDT	3	2x10 bit	6	Yes	DM183011, PICDEM™ MC
PIC18F2431	16384 EnhFl (8192)	256	768	22	28SP, 28SO, 28MM	200 ksps ADC	EUSART, I^{2}C/SPI	40	1	3-16 bit, 1-8 bit, WDT	3	2x10 bit	6	Yes	DM183011, PICDEM™ MC
PIC18F4331	8192 EnhFl (4096)	256	768	34	40P, 44PT, 44ML	200 ksps ADC	EUSART, I^{2}C/SPI	40	1	3-16 bit, 1-8 bit, WDT	3	2x10 bit	8	Yes	DM183011, PICDEM™ MC
PIC18F4431	16384 EnhFl (8192)	256	768	34	40P, 44PT, 44ML	200 ksps ADC	EUSART, I^{2}C/SPI	40	1	3-16 bit, 1-8 bit, WDT	3	2x10 bit	8	Yes	DM183011, PICDEM™ MC
dsPIC30F2010	12288 EnhFl (4096)	1024	512	20	28SO, 28SP, 28MM	500 ksps ADC	UART, I^{2}C/SPI	120	1	3-16 bit, WDT	4	2	6	Yes	DM300020***
dsPIC30F3010	24576 EnhFl (8102)	1024	1024	20	28SO, 28SP, 44ML (8x8)	500 ksps ADC	UART, I^{2}C/SPI	120	2	5-16 bit, WDT	4	2	6	Yes	DM300020***
dsPIC30F4012	49152 EnhFl (16384)	1024	2048	20	28SO, 28SP, 44ML (8x8)	500 ksps ADC	UART, I^{2}C/SPI, CAN	120	1	5-16 bit, WDt	4	2	6	Yes	DM300020***
dsPIC30F3011	24576 EnhFl (8102)	1024	1024	30	40P, 44PT, 44ML (8x8)	500 ksps ADC	UART, I^{2}C/SPI	120	2	5-16 bit, WDT	4	4	6	Yes	DM300020***
dsPIC30F4011	49152 EnhFl (16384)	1024	2048	30	40P, 44PT, 44ML (8x8)	500 ksps ADC	UART, I^{2}C/SPI, CAN	120	1	5-16 bit, WDT	4	4	6	Yes	DM300020***
dsPIC30F6010	147456 EnhFl (49152)	4096	8192	68	80PF	500 ksps ADC	UART, I^{2}C/SPI, CAN	120	4	5-16 bit, WDT	8	8	8	Yes	DM300020***

*****Refer to dsPIC DSC Brochure for further details.**
Refer to Design pages on www.microchip.com for further details.
Abbreviations are found on the last page of the Selector Guide.

Product	Program Memory Bytes & Type (Words)	EEPROM Data Memory Bytes	SRAM Bytes	I/O Pins (max.)	Packages	A/D 12-bit 100 KSPS (ch)	A/D 10-bit 500 KSPS	Timer 16-bit	Input Cap	Output Comp/ Std PWM	Motor Control PWM	Quad. Encoder	UART	SPI™	I^2C™
High Speed Sensor Solutions															
dsPIC30F2011	12288 EnhFl (4096)	—	1024	12	18SO, 18P, 28ML (6x6)	8	—	3	2	2	—	—	1	1	1
dsPIC30F3012	24576 EnhFl (8192)	1024	2048	12	18SO, 18P, 44ML (8x8)	8	—	3	2	2	—	—	1	1	1
dsPIC30F2012	12288 EnhFl (4096)	—	1024	20	28SO, 28SP, 28ML (6x6)	10	—	3	2	2	—	—	1	1	1
dsPIC30F3013	24576EnhFl (8192)	1024	2048	20	28SO, 28SP, 44ML (8x8)	10	—	3	2	2	—	—	2	1	1

Abbreviations are found on the last page of the Selector Guide.

Power-Managed Solutions Featuring *nanoWatt* Technology			
Minimum nanoWatt Feature Set (V_{DD} = 2.0-5.5V)	**6-20 Pin**	**28-44 Pin**	**64-80 Pin**
Internal Oscillator Quick Start-up (4 MHz) Power-Managed Modes Sleep Low-Power Timer1 Low-Power Watchdog	PIC16F627A, PIC16F628A, PIC16F648A		
Additional Features to Minimum	**6-20 Pin**	**28-44 Pin**	**64-80 Pin**
IntOSC: Quick Start-up (Two speed) and Clock Divide (8 MHz) BOR	PIC16F818, PIC16F819		
IntOSC: Quick Start-up (Two speed), Fail-safe Clock Monitor and Clock Divide (8 MHz) Ultra Low-Power Wake-up	PIC12F683 PIC16F684, PIC16F688		
IntOSC: Quick Start-up (Two speed), Fail-safe Clock Monitor and Clock Divide (8 MHz) Ultra Low-Power Wake-up Low-Power Watchdog – Enhanced Software Controlled BOR	PIC16F631, PIC16F677, PIC16F685, PIC16F687, PIC16F689, PIC16F785, PIC16F690		
IntOSC: Quick Start-up (Two speed), Fail-safe Clock Monitor and Clock Divide (8 MHz) Ultra Low-Power Wake-up Wake-up Reset Low-Power Watchdog – Enhanced PLVD Software Controlled BOR	PIC12F635 PIC16F636, PIC16F639		
IntOSC: Quick Start-up (Two speed), Fail-safe Clock Monitor and Selectable Clock (31 kHz-8 MHz) Power-Managed Modes: RC Run Modes PLVD PBOR	PIC16F87, PIC16F88	PIC16F737, PIC16F747, PIC16F767, PIC16F777, PIC16F913, PIC16F914, PIC16F916, PIC16F917	

For additional details, please refer to device data sheets and design pages on www.microchip.com.

Power-Managed Solutions Featuring *nanoWatt* Technology (continued)			
Additional Features to Minimum	**6-20 Pin**	**28-44 Pin**	**64-80 Pin**
IntOSC: Quick Start-up (Two speed), Fail-safe Clock Monitor and Selectable Clock (31 kHz) Power-Managed Modes: Multiple Idle Modes and RC Run Modes BOR		PIC18F24J10, PIC18F25J10, PIC18F45J10, PIC18F44J10,	PIC18F65J10, PIC18F65J15, PIC18F66J10, PIC18F66J15, PIC18F67J10, PIC18F85J10, PIC18F85J15, PIC18F86J10, PIC18F86J15, PIC18F87J10,
IntOSC: Quick Start-up (Two speed), Fail-safe Clock Monitor and Selectable Clock (31 kHz - 8 MHz) Power-Managed Modes: Multiple Idle Modes and RC Run Modes PLVD PBOR	PIC18F1220, PIC18F1320	PIC18F2220, PIC18F2221, PIC18F2320, PIC18F2321, PIC18F2331, PIC18F2410, PIC18F2420, PIC18F2431, PIC18F2480, PIC18F2510, PIC18F2515, PIC18F2520, PIC18F2525, PIC18F2550, PIC18F2580, PIC18F2585, PIC18F2610, PIC18F2620, PIC18F2680, PIC18F4220, PIC18F4221, PIC18F4320, PIC18F4321, PIC18F4331, PIC18F4410, PIC18F4420, PIC18F4431, PIC18F4455, PIC18F4480, PIC18F4510, PIC18F4515, PIC18F4520, PIC18F4525, PIC18F4550, PIC18F4580, PIC18F4585, PIC18F4610, PIC18F4620, PIC18F4680	PIC18F6310, PIC18F6390, PIC18F6410, PIC18F6490, PIC18F6522, PIC18F6527, PIC18F6622, PIC18F6722, PIc18F8310, PIC18F8390, PIC18F8410, PIC18F8490, PIC18F8522, PIC18F8527, PIC18F8622, PIC18F8627, PIC18F8722

For additional details, please refer to device data sheets and design pages on www.microchip.com.