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Microcontrollers • Digital Signal Controllers • Analog • Memory • Wireless

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8-BIT PIC® MICROCONTROLLERS

	Product	Released (R) Not Released (NR)	Pins		Core	Memory				Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital										Communication						Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read/Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator			8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b/9b)	PWM	CCP	ECCP	PSMC (16-bit PWM)	CWG/COG	NCO	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD				
6-Pin	PIC10F200	R	6	4	BL	0.375 KB 0.25 Kw	–	16	–	2V–5.5V	4 MHz	4 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.30	PDIP (P), 2 × 3 DFN (MC), SOT-23 (OT)	Smallest form-factor
	PIC10F202	R	6	4	BL	0.75 KB 0.50 Kw	–	24	–	2V–5.5V	4 MHz	4 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.33	PDIP (P), 2 × 3 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	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.33	PDIP (P), 2 × 3 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	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.36	PDIP (P), 2 × 3 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	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.36	PDIP (P), 2 × 3 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	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.39	PDIP (P), 2 × 3 DFN (MC), SOT-23 (OT)	Smallest form-factor
	PIC10F320	R	6	4	MR	0.4375 KB 0.25 Kw	RW	32	–	1.8V–5.5V	16 MHz	16 MHz	–	3	3	–	–	–	–	–	–	2	–	–	–	1/0	1	1	2	1	–	–	–	–	–	–	BOR	SW◊	–	–	$0.39	PDIP (P), 2 × 3 DFN (MC), SOT-23 (OT)	Temp*
	PIC10F322	R	6	4	MR	0.875 KB 0.50 Kw	RW	64	–	1.8V–5.5V	16 MHz	16 MHz	–	3	3	–	–	–	–	–	–	2	–	–	–	1/0	1	1	2	1	–	–	–	–	–	–	BOR	SW◊	–	–	$0.42	PDIP (P), 2 × 3 DFN (MC), SOT-23 (OT)	Temp*
8-Pin	PIC12F1612 XLP	NR	8	6	EMR	3.5 KB 2 Kw	RW	256	–	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	4	–	4	–	–	–	–	–	–	–	–	–	1/0	–	4	1	–	–	–	–	–	–	–	PBOR	–	–	✓	call for pricing	PDIP (P), SOIC (SN), DFN (MC)	CRC, WWDT, SMT, ZCD
	PIC12F1571 XLP	NR	8	6	EMR	1.7 KB 1 Kw	RW	128	-	1.8V–5.5V	32 MHz	16 MHz	–	4	–	4	–	1	–	–	1/0/0	3	–	–	–	1/0	–	–	2	4	–	0	–	–	–	–	BOR	–	–	✓	call for pricing	PDIP (P), MSOP (MS), SOIC (SN), 3 × 3 DFN (MF)	3× 16-bit PWMs
	PIC12F1572 XLP	NR	8	6	EMR	3.5 KB 2 Kw	RW	256	-	1.8V–5.5V	32 MHz	16 MHz	–	4	–	4	–	1	–	–	1/0/0	3	–	–	–	1/0	–	–	2	4	–	1	–	–	–	–	BOR	–	–	✓	call for pricing	PDIP (P), MSOP (MS), SOIC (SN), 3 × 3 DFN (MF)	3× 16-bit PWMs
	PIC12F508	R	8	6	BL	0.75 KB 0.50 Kw	–	25	–	2V–5.5V	4 MHz	4 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.41	PDIP (P), SOIC (SN), MSOP (MS), 2 × 3 DFN (MC)	
	PIC12F509	R	8	6	BL	1.5 KB 1 Kw	–	41	–	2V–5.5V	4 MHz	4 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.45	PDIP (P), SOIC (SN), MSOP (MS), 2 × 3 DFN (MC)	
	PIC12F510	R	8	6	BL	1.5 KB 1 Kw	–	38	–	2V–5.5V	8 MHz	4 MHz, 8 MHz	–	3	3	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.49	PDIP (P), SOIC (SN), MSOP (MS), 2 × 3 DFN (MC)	
	PIC12F519	R	8	6	BL	1.5 KB 1 Kw	–	41	64	2V–5.5V	8 MHz	4 MHz, 8 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.49	PDIP (P), SOIC (SN), MSOP (MS), 2 × 3 DFN (MC)	Lowest cost Data EE
	PIC12F1501	R	8	6	EMR	1.75 KB 1 Kw	RW	64	–	1.8V–5.5V	20 MHz	16 MHz	–	4	–	4	–	1	–	–	–	4	–	–	–	1/0	1	1	2	1	–	–	–	–	–	–	PBOR	SW◊	–	✓	$0.49	PDIP (P), SOIC (SO), MSOP (MS), 2 × 3 DFN (MC)	Temp*
	PIC12F609	R	8	6	MR	1.75 KB 1 Kw	–	64	–	2V–15V	20 MHz	4 MHz, 8 MHz	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$0.52	PDIP (P), SOIC (SN), MSOP (MS), 4 × 4 DFN (MD), 3 × 3 DFN (MF)	
	PIC12F615	R	8	6	MR	1.75 KB 1 Kw	–	64	–	2V–15V	20 MHz	4 MHz, 8 MHz	–	4	–	4	–	1	–	–	–	–	–	1	–	–	–	–	2	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$0.55	PDIP (P), SOIC (SN), MSOP (MS), 4 × 4 DFN (MD), 3 × 3 DFN (MF)	
	PIC12F752	R	8	6	MR	1.75 KB 1 Kw	RW	64	–	2V–5.5V	20 MHz	4 MHz, 8 MHz	–	4	–	4	–	2	–	–	1/0/0	–	1	–	–	0/1	–	–	3	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$0.59	PDIP (P), SOIC (SN), 3 × 3 DFN (MF)	HV Option
	PIC12F617	R	8	6	MR	3.5 KB 2 Kw	RW	128	–	2V–5.5V	20 MHz	4 MHz, 8 MHz	–	4	–	4	–	1	–	–	–	–	–	1	–	–	–	–	2	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$0.59	PDIP (P), SOIC (SN), MSOP (MS), 3 × 3 DFN (MF)	
	PIC12LF1552 XLP	R	8	6	EMR	3.5 KB 2 Kw	RW	256	–	1.8V–3.6V	32 MHz	16 MHz	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	BOR	–	–	–	$0.66	PDIP (P), MSOP (MS), SOIC (SN), 2 × 3 DFN (MC)	Hardware CVD
	PIC12F629	R	8	6	MR	1.75 KB 1 Kw	–	64	128	2V–5.5V	20 MHz	4 MHz	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$0.70	PDIP (P), SOIC (SN), 4 × 4 DFN (MD), 6 × 5 DFN (MF)	
	PIC12F1822 XLP	R	8	6	EMR	3.5 KB 2 Kw	RW	128	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	–	4	–	4	–	1	–	–	–	–	–	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	–	✓	$0.73	PDIP (P), SOIC (SN), 3 × 3 DFN (MF)	Temp*
	PIC12F675	R	8	6	MR	1.75 KB 1 Kw	–	64	128	2V–5.5V	20 MHz	4 MHz	–	3	–	3	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$0.77	PDIP (P), SOIC (SN), 4 × 4 DFN (MD), 6 × 5 DFN (MF)	
	PIC12F1840 XLP	R	8	6	EMR	7 KB 4 Kw	RW	256	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	–	–	–	4	–	1	–	–	–	–	–	1	–	–	–	–	2	1	–	1	1	–	–	–	PBOR	SW	✓	✓	$0.78	PDIP (P), SOIC (SN), 6 × 5 DFN (MF)	DSM, Temp*
	PIC12F635	R	8	6	MR	1.75 KB 1 Kw	–	64	128	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	✓	–	✓	$0.84	PDIP (P), SOIC (SN), 4 × 4 DFN (MD)	KEELOQ®
	PIC12F683	R	8	6	MR	3.5 KB 2 Kw	–	128	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	3	–	3	–	1	–	–	–	–	1	–	–	–	–	–	2	1	–	–	–	–	–	–	PBOR	SW◊	–	✓	$0.91	PDIP (P), SOIC (SN), 4 × 4 DFN (MD)	
14-Pin	PIC16F1613 XLP	NR	14	13	EMR	3.5 KB 2 Kw	RW	256	–	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	8	–	8	–	–	–	–	–	–	–	–	–	1/0	–	4	1	–	–	–	–	–	–	–	PBOR	–	–	✓	call for pricing	PDIP (P), TSSOP (ST), SOIC (SN), 4 × 4 QFN (MC)	CRC, WWDT, SMT, ZCD
	PIC16F505	R	14	12	BL	1.5 KB 1 Kw	–	72	–	2V–5.5V	20 MHz	4 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.48	PDIP (P), SOIC (SL), TSSOP (ST), 3 × 3 QFN (MG)	
	PIC16F506	R	14	12	BL	1.5 KB 1 Kw	–	67	–	2V–5.5V	20 MHz	4/8 MHz	–	4	4	–	–	2	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.52	PDIP (P), SOIC (SL), TSSOP (ST), 3 × 3 QFN (MG)	
	PIC16F526	R	14	12	BL	1.5 KB 1 Kw	–	67	64	2V–5.5V	20 MHz	4/8 MHz	–	4	4	–	–	2	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.55	PDIP (P), SOIC (SL), TSSOP (ST), 3 × 3 QFN (MG)	Lowest cost Data EE

Products sorted by pin count followed by pricing.
† Pricing subject to change; please contact your Microchip representative for most current pricing.
◊ Software PLVD implemented via ADC.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

8-BIT PIC® MICROCONTROLLERS

	Product	Released (R) Not Released (NR)	Pins		Core	Memory				Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement						Digital										Communication						Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read/Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator			8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b/9b)	PWM	CCP	ECCP	PSMC (16-bit PWM)	CWG/COG	NCO	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD					
14-Pin (Cont.)	PIC16F1503	R	14	12	EMR	3.5 KB 2 Kw	RW	128	–	1.8V–5.5V	20 MHz	16 MHz	–	8	–	8	–	2	–	–	–	4	–	–	–	1/0	1	1	2	1	–	–	1	–	–	–	PBOR	SW◊	–	✓	$0.55	PDIP (P), SOIC (SL), SSOP (SS), 3 × 3 QFN (MG)	Temp*
	PIC16F610	R	14	12	MR	1.75 KB 1 Kw	–	64	–	2V–15V	20 MHz	4/8 MHz	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	–	✓	✓	$0.59	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	
	PIC16F1703 XLP	NR	14	12	EMR	3.5 KB 2 Kw	RW	256	–	1.8V–5.5V	32 MHz	16 MHz	–	8	–	8	–	0	–	2	0/0/0	–	2	–	–	0/0	–	–	2	1	–	–	1	–	–	–	POR/ LPBOR	–	–	✓	$0.62	PDIP (P), TSSOP (ST), 4 × 4 × QFN (ML), SOIC (SL)	Zero Cross Detect, Peripheral Pin Select
	PIC16F753	R	14	12	MR	3.5 KB 2 Kw	RW	128	–	2V–5.5V	20 MHz	4/8 MHz	–	8	–	8	–	2	–	1	0/0/1	–	1	1	–	0/1	–	–	3	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$0.63	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	HV Option, Slope compensation
	PIC16F1704 XLP	NR	14	12	EMR	7 KB 4 Kw	RW	512	–	1.8V–5.5V	32 MHz	16 MHz	–	8	–	8	–	2	–	2	0/1/0	2	2	–	–	0/1	–	3	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$0.67	PDIP (P), TSSOP (ST), 4 × 4 QFN (ML), SOIC (SL)	Zero Cross Detect, Peripheral Pin Select
	PIC16F616	R	14	12	MR	3.5 KB 2 Kw	–	128	–	2V–15V	20 MHz	4/8 MHz	–	8	–	8	–	2	–	–	–	–	–	1	–	–	–	–	2	1	–	–	–	–	–	–	BOR	SW◊	✓	✓	$0.69	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	
	PIC16F1705 XLP	NR	14	12	EMR	14 KB 8 Kw	RW	1K	–	1.8V–5.5V	32 MHz	16 MHz	–	8	–	8	–	2	–	2	0/1/0	2	2	–	–	0/1	–	3	4	1	–	1	1	–	-	-	POR/ LPBOR	–	–	✓	$0.73	PDIP (P), TSSOP (ST), 4 × 4 QFN (ML), SOIC (SL)	Zero Cross Detect, Peripheral Pin Select
	PIC16F1823 XLP	R	14	12	EMR	3.5 KB 2 Kw	RW	128	256	1.8V-5.5V	32 MHz	32 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	–	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$0.78	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	Temp*
	PIC16F1824 XLP	R	14	12	EMR	7 KB 4 Kw	RW	256	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	2	2	–	–	–	–	4	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$0.84	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	DSM, Temp*
	PIC16F1454 XLP	R	14	12	EMR	7 KB 4 Kw	RW	512	–	1.8V–5.5V	48 MHz	48 MHz, 31 kHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	✓	–	PBOR	SW	–	✓	$0.91	PDIP (P), TSSOP (ST), SOIC (SL), 4 × 4 QFN (ML)	Crystal Free USB
	PIC16F630	R	14	12	MR	1.75 KB 1 Kw	–	64	128	2V–5.5V	20 MHz	4 MHz	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	–	–	✓	$0.91	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	
	PIC16F1825 XLP	R	14	12	EMR	14 KB 8 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	2	2	–	–	–	–	4	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$0.92	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	DSM, Temp*
	PIC16F636	R	14	12	MR	3.5 KB 2 Kw	–	128	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	–	–	✓	$0.92	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	KEELOQ®
	PIC16F676	R	14	12	MR	1.75 KB 1 Kw	–	64	128	2V–5.5V	20 MHz	4 MHz	–	8	–	8	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	–	–	✓	$0.98	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	
	PIC16F684	R	14	12	MR	3.5 KB 2 Kw	–	128	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	–	1	–	–	–	–	2	1	–	–	–	–	–	–	BOR	–	–	✓	$0.98	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	
	PIC16F1455 XLP	R	14	12	EMR	14 KB 8 Kw	RW	1024	–	1.8V–5.5V	48 MHz	48 MHz, 31 kHz	–	5	–	5	–	2	–	–	–	2	–	–	–	–	–	–	2	1	–	1	1	–	✓	–	PBOR	SW	–	✓	$1.04	PDIP (P), TSSOP (ST), SOIC (SL), 4 × 4 QFN (ML)	Crystal Free USB
	PIC16F688	R	14	12	MR	7 KB 4 Kw	R	256	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	1	–	–	–	–	BOR	–	–	✓	$1.04	PDIP (P), SOIC (SL), TSSOP (ST), 4 × 4 QFN (ML)	
18-Pin	PIC16F54	R	18	12	BL	0.75 KB 0.50 Kw	–	25	–	2V–5.5V	20 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.39	PDIP (P), SOIC (SO), SSOP (SS)	
	PIC16F1826 XLP	R	18	16	EMR	3.5 KB 2 Kw	RW	256	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$0.97	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	DSM, Temp*
	PIC16F1827 XLP	R	18	16	EMR	7 KB 4 Kw	RW	384	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	2	–	–	–	–	4	1	–	1	2	–	–	–	BOR	SW◊	✓	✓	$1.04	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	DSM, Temp*
	PIC16F1847 XLP	R	18	16	EMR	14 KB 8 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	2	–	–	–	–	4	1	–	1	2	–	–	–	PBOR	SW	✓	✓	$1.09	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML), UQFN (MV)	DSM, Temp*
20-Pin	PIC16F527	R	20	18	EBL	1.5 KB 1 Kw	RW	68	64	2V–5.5V	20 Mhz	8 MHz	–	8	8	–	–	2	–	2	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	BOR	–	–	–	$0.49	PDIP (P), 4 × 4 QFN (ML), SSOP (SS), SOIC (SO)	
	PIC16F1507	R	20	18	EMR	3.5 KB 2 Kw	RW	128	–	1.8V–5.5V	20 MHz	16 MHz	–	12	–	12	–	–	–	–	–	4	–	–	–	1/0	1	1	2	1	–	–	–	–	–	–	PBOR	SW	–	✓	$0.69	PDIP (P), SOIC (SO), SSOP, 4 × 4 QFN (ML)	Temp*
	PIC16F720	R	20	18	MR	3.5 KB 2 Kw	RW	128	–	1.8V–5.5V	16 MHz	16 MHz, 500 kHz	–	12	12	–	–	–	–	–	–	–	1	–	–	–	–	–	2	1	1	–	1	–	–	–	BOR	SW◊	–	✓	$0.77	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	Temp*
	PIC16F1508 XLP	R	20	18	EMR	7 KB 4 Kw	RW	256	–	1.8V–5.5V	20 MHz	16 MHz	–	2	–	12	–	2	–	–	–	4	–	–	–	1/0	1	1	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$0.77	PDIP (P), SOIC (SO), SSOP, 4 × 4 QFN (ML)	Temp*
	PIC16F1707 XLP	NR	20	18	EMR	3.5 KB 2 Kw	RW	256	–	1.8V–5.5V	32 MHz	16 MHz	–	8	–	8	–	0	–	2	0/0/0	–	2	–	–	0/0	–	–	2	1	–	–	1	–	–	–	POR/ LPBOR	–	–	✓	$0.77	PDIP (P), 4 × 4 QFN (ML), SOIC (SO), SSOP (SS)	Zero Cross Detect, Peripheral Pin Select
	PIC16F1509 XLP	R	20	18	EMR	14 KB 8 Kw	RW	512	–	1.8V–5.5V	20 MHz	16 MHz	–	2	–	12	–	2	–	–	–	4	–	–	–	1/0	1	1	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$0.81	PDIP (P), SOIC (SO), SSOP, 4 × 4 QFN (ML)	Temp*
	PIC16F1708 XLP	NR	20	18	EMR	7 KB 4 Kw	RW	512	–	1.8V–5.5V	32 MHz	16 MHz	–	12	–	12	–	2	–	2	0/1/0	2	2	–	–	0/1	–	3	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$0.83	PDIP (P), 4 × 4 QFN (ML), SOIC (SO), SSOP (SS)	Zero Cross Detect, Peripheral Pin Select
	PIC16F721	R	20	18	MR	7 KB 4 Kw	RW	256	–	1.8V–5.5V	16 MHz	16 MHz, 500 kHz	–	12	12	–	–	–	–	–	–	–	1	–	–	–	–	–	2	1	1	–	1	–	–	–	BOR	SW◊	–	✓	$0.84	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	Temp*
	PIC16F1709 XLP	NR	20	18	EMR	14 KB 8 Kw	RW	1K	–	1.8V–5.5V	32 MHz	16 MHz	–	12	–	12	–	2	–	2	0/1/0	2	2	–	–	0/1	–	3	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$0.88	PDIP (P), 4 × 4 QFN (ML), SOIC (SO), SSOP (SS)	Zero Cross Detect, Peripheral Pin Select
	PIC16F631	R	20	18	MR	1.75 KB 1 Kw	R	64	128	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	BOR	SW◊	✓	✓	$0.91	PDIP (P), SOIC (SO), SSOP (SS), 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.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

8-BIT PIC® MICROCONTROLLERS

	Product	Released (R) Not Released (NR)	Pins		Core	Memory				Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement						Digital										Communication						Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read/Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator			8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b/9b)	PWM	CCP	ECCP	PSMC (16-bit PWM)	CWG/COG	NCO	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD				
20-Pin (Cont.)	PIC16F1828 XLP	R	20	18	EMR	7 KB 4 Kw	RW	256	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	2	–	–	–	–	4	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$0.99	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	DSM, Temp*
	PIC16F677	R	20	18	MR	3.5 KB 2 Kw	R	128	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	–	1	–	–	–	BOR	SW◊	✓	✓	$0.99	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	
	PIC16F1829 XLP	R	20	18	EMR	14 KB 8 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	2	–	–	–	–	4	1	–	1	2	–	–	–	BOR	SW◊	✓	✓	$1.06	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	DSM, Temp*
	PIC16F687	R	20	18	MR	3.5 KB 2 Kw	R	128	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.07	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	
	PIC16F785	R	20	18	MR	3.5 KB 2 Kw	–	128	256	2V–15V	20 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	2	–	2	1	–	–	–	–	–	2	1	–	–	–	–	–	–	BOR	SW◊	–	✓	$1.12	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	
	PIC16F685	R	20	18	MR	7 KB 4 Kw	R	256	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	1	–	–	–	–	2	1	–	–	–	–	–	–	BOR	SW◊	✓	✓	$1.13	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	
	PIC16F689	R	20	18	MR	7 KB 4 Kw	R	256	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.13	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	
	PIC16F1459 XLP	R	20	18	EMR	14 KB 8 Kw	RW	1024	–	1.8V–5.5V	48 MHz	48 MHz, 31 kHz	–	9	–	9	–	2	–	–	–	2	–	–	–	–	–	–	2	1	–	1	1	–	✓	–	PBOR	SW◊	–	✓	$1.18	PDIP (P), SOIC (SO), SSOP (SS), 4 × 4 QFN (ML)	Crystal Free USB
	PIC16F690	R	20	18	MR	7 KB 4 Kw	R	256	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.20	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	
	PIC18F13K22 XLP	R	20	18	PIC18	8 KB 4 Kw	RW	256	256	1.8V–5.5V	64 MHz	64 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	1	–	–	–	–	1	3	–	1	1	–	–	–	PBOR	SW◊	✓	–	$1.33	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	Temp*
	PIC18F13K50 XLP	R	20	15	PIC18	8 KB 4 Kw	RW	512	256	1.8V–5.5V	48 MHz	32 MHz, 31 kHz	–	9	–	9	–	2	–	–	–	–	–	1	–	–	–	–	1	3	–	1	1	–	✓	–	PBOR	SW◊	✓	–	$1.39	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	Temp*
	PIC18F14K22 XLP	R	20	18	PIC18	16 KB 8 Kw	RW	512	256	1.8V–5.5V	64 MHz	64 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	–	1	–	–	–	–	1	3	–	1	1	–	–	–	PBOR	SW◊	✓	–	$1.47	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	Temp*
	PIC18F14K50 XLP	R	20	15	PIC18	16 KB 8 Kw	RW	768	256	1.8V–5.5V	48 MHz	32 MHz, 31 kHz	–	9	–	9	–	2	–	–	–	–	–	1	–	–	–	–	1	3	–	1	1	–	✓	–	PBOR	SW◊	✓	–	$1.53	PDIP (P), SOIC (SO), SSOP (SS), QFN (ML)	Temp*
28-Pin	PIC16F57	R	28	20	BL	3 KB 2 Kw	–	72	–	2V–5.5V	20 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.52	SPDIP (SP), SOIC (SO), SSOP (SS)	
	PIC16F570	R	28	25	BL	3 KB 2 Kw	RW	132	64	2V–5.5V	20 MHz	8 MHz	–	8	8	–	–	2	–	2	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	BOR	–	–	–	$0.60	SPDIP (P), 6 × 6 QFN (ML), SSOP (SS), SOIC (SO)	
	PIC16F722A XLP	R	28	25	MR	3.5 KB 2 Kw	R	128	–	1.8V–5.5V	20 MHz	16 MHz	–	11	11	–	–	–	–	–	–	–	2	–	–	–	–	–	2	1	1	–	1	–	–	–	BOR	SW◊	–	✓	$0.78	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	Temp*
	PIC16LF1902 XLP	R	28	25	EMR	3.5 KB 2 Kw	RW	128	–	1.8V–3.6V	20 MHz	16 MHz	72	11	–	11	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	SW◊	–	–	$0.78	SPDIP (SP), SOIC (SO), SSOP (SS), 4 × 4 UQFN (MV)	Temp*
	PIC16F1512 XLP	R	28	25	EMR	3.5 KB 2 Kw	RW	128	–	1.8V–5.5V	20 MHz	16 MHz, 31 kHz	–	17	–	17	–	–	–	–	–	–	2	–	–	–	–	–	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$0.81	SPDIP (SP), SOIC (SO), SSOP (SS), 4 × 4 UQFN (MV)	Temp*
	PIC16F723A XLP	R	28	25	MR	7 KB 4 Kw	R	192	–	1.8V–5.5V	20 MHz	16 MHz	–	11	11	–	–	–	–	–	–	–	2	–	–	–	–	–	2	1	1	–	1	–	–	–	BOR	SW◊	–	✓	$0.85	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	Temp*
	PIC16LF1903 XLP	R	28	25	EMR	7 KB 4 Kw	RW	256	–	1.8V–3.6V	20 MHz	16 MHz	72	11	–	11	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	SW◊	–	–	$0.85	SPDIP (SP), SOIC (SO), SSOP (SS), 4 × 4 UQFN (MV)	Temp*
	PIC16F1513 XLP	R	28	25	EMR	7 KB 4 Kw	RW	256	–	1.8V–5.5V	20 MHz	16 MHz, 31 kHz	–	17	–	17	–	–	–	–	–	–	2	–	–	–	–	–	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$0.88	SPDIP (SP), SOIC (SO), SSOP (SS), 4 × 4 UQFN (MV)	Temp*
	PIC16LF1906 XLP	R	28	25	EMR	14 KB 8 Kw	RW	512	–	1.8V–3.6V	20 MHz	16 MHz	72	11	–	11	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	1	–	–	–	–	–	SW◊	–	–	$0.91	SPDIP (SP), SOIC (SO), SSOP (SS), 4 × 4 UQFN (MV)	Temp*
	PIC16F1713 XLP	NR	28	25	EMR	7 KB 4 Kw	RW	512	–	1.8V–5.5V	32 MHz	16 MHz	–	17	–	17	–	2	–	2	1/1/0	2	2	–	–	0/1	1	4	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$0.92	SOIC (SO), SSOP (SS), SPDIP (SP), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	Zero Cross Detect, Peripheral Pin Select
	PIC16F1516 XLP	R	28	25	EMR	14 KB 8 Kw	RW	512	–	1.8V–5.5V	20 MHz	16 MHz	–	17	–	17	–	–	–	–	–	–	2	–	–	–	–	–	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$0.95	SPDIP (SP), SOIC (SO), SSOP (SS), 4 × 4 UQFN (MV)	Temp*
	PIC16F1716 XLP	NR	28	25	EMR	14 KB 8 Kw	RW	1K	–	1.8V–5.5V	32 MHz	16 MHz	–	17	–	17	–	2	–	2	1/1/0	2	2	–	–	0/1	1	4	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$0.98	SOIC (SO), SSOP (SS), SPDIP (SP), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	
	PIC16F1518 XLP	R	28	25	EMR	28 KB 16 Kw	RW	1K	–	1.8V–5.5V	20 MHz	16 MHz	–	17	–	17	–	–	–	–	–	–	2	–	–	–	–	–	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$1.01	SPDIP (SP), SOIC (SO), SSOP (SS), 4 × 4 UQFN (MV)	Temp*
	PIC16F1718 XLP	NR	28	25	EMR	28 KB 16 Kw	RW	2K	–	1.8V–5.5V	32 MHz	16 MHz	–	17	–	17	–	2	–	2	1/1/0	2	2	–	–	0/1	1	4	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$1.05	SOIC (SO), SSOP (SS), SPDIP (SP), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	
	PIC16F882	R	28	25	MR	3.5 KB 2 Kw	RW	128	128	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	1	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.16	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC16F726 XLP	R	28	25	MR	14 KB 8 Kw	R	368	–	1.8V–5.5V	20 MHz	16 MHz	–	11	11	–	–	–	–	–	–	–	2	–	–	–	–	–	2	1	1	–	1	–	–	–	BOR	SW◊	–	✓	$1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	Temp*
	PIC16F1782 XLP	R	28	25	EMR	3.5 KB 2 Kw	RW	256	256	1.8V–5.5V	32 MHz	32 MHz	–	11	–	–	11	3	–	2	0/1/0	–	2	–	2	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	–	✓	$1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	
	PIC16F1933 XLP	R	28	25	EMR	7 KB 4 Kw	RW	256	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	60	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	4	1	–	1	1	–	–	–	PBOR	SW◊	✓	✓	$1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	Temp*
	PIC18F23K20 XLP	R	28	25	PIC18	8 KB 4 Kw	RW	512	256	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	1	1	–	–	–	–	1	3	–	1	1	–	–	–	BOR	✓	–	–	$1.23	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	
	PIC16F1783 XLP	R	28	25	EMR	7 KB 4 Kw	RW	512	256	1.8V–5.5V	32 MHz	32 MHz	–	11	–	–	11	3	–	2	0/1/0	–	2	–	2	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	–	✓	$1.30	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	

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◊ Software PLVD implemented via ADC.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

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	Product	Released (R) Not Released (NR)	Pins		Core	Memory				Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital										Communication						Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read/Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator			8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b/9b)	PWM	CCP	ECCP	PSMC (16-bit PWM)	CWG/COG	NCO	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD				
28-Pin (Cont.)	PIC16F1936 XLP	R	28	25	EMR	14 KB 8 Kw	RW	512	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	60	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	4	1	–	1	1	–	–	–	PBOR	SW◊	✓	✓	$1.30	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	Temp*
	PIC18F24K20 XLP	R	28	25	PIC18	16 KB 8 Kw	RW	768	256	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	1	1	–	–	–	–	1	3	–	1	1	–	–	–	PBOR	✓	–	–	$1.30	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC16F883	R	28	25	MR	7 KB 4 Kw	RW	256	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	1	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC16F1786 XLP	R	28	25	EMR	14 KB 8 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz	–	11	–	–	11	4	–	2	0/1/0	–	3	–	3	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	–	✓	$1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC16F1938 XLP	R	28	25	EMR	28 KB 16 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	60	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	4	1	–	1	1	–	–	–	PBOR	SW◊	✓	✓	$1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	Temp*
	PIC18F25K20 XLP	R	28	25	PIC18	32 KB 16 Kw	RW	1536	256	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	1	1	–	–	–	–	1	3	–	1	1	–	–	–	PBOR	✓	–	–	$1.37	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC18F23K22 XLP	R	28	25	PIC18	8 KB 4 Kw	RW	512	256	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	17	–	17	–	2	✓	–	–	–	1	1	–	–	–	–	–	3	–	2	2	–	–	–	PBOR	✓	✓	✓	$1.41	SPDIP (SP), SOIC (SO), SSOP (SS), 6×6 QFN (ML), 4×4 UQFN (MV)	Temp*
	PIC18F24J10	R	28	21	PIC18	16 KB 8 Kw	RW	1024	–	2V–3.6V	40 MHz	32 kHz	–	10	–	10	–	2	–	–	–	–	2	–	–	–	–	–	–	2	–	1	1	–	–	–	BOR	–	–	–	$1.44	SPDIP (SP), SOIC (SO), QFN (ML)	
	PIC16F1788 XLP	R	28	25	EMR	28 KB 16 Kw	RW	2K	256	1.8V–5.5V	32 MHz	32 MHz	–	11	–	–	11	4	–	2	3/1/0	–	3	–	4	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	–	✓	$1.44	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC18F24K22 XLP	R	28	25	PIC18	16 KB 8 Kw	RW	768	256	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	17	–	17	–	2	✓	–	–	–	1	1	–	–	–	–	–	3	–	2	2	–	–	–	PBOR	✓	✓	✓	$1.48	SPDIP (SP), SOIC (SO), SSOP (SS), 6×6 QFN (ML), 4×4 UQFN(MV)	Temp*
	PIC16F886	R	28	25	MR	14 KB 8 Kw	RW	368	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	1	1	–	–	–	–	–	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.49	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC18F25J10	R	28	21	PIC18	32 KB 16 Kw	RW	1024	–	2V–3.6V	40 MHz	32 kHz	–	10	–	10	–	2	–	–	–	–	2	–	–	–	–	–	–	2	–	1	1	–	–	–	BOR	–	–	–	$1.58	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	
	PIC18F25K22 XLP	R	28	25	PIC18	32 KB 16 Kw	RW	1536	256	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	17	–	17	–	2	✓	–	–	–	2	3	–	–	–	–	–	4	–	2	2	–	–	–	PBOR	✓	✓	✓	$1.62	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	Temp*
	PIC18F24J11 XLP	R	28	21	PIC18	16 KB 8 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	10	–	2	✓	–	–	–	–	2	–	–	–	–	–	3	–	2	2	–	–	–	BOR	SW◊	–	–	$1.65	SPDIP (SP), SOIC (SO), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F24K50 XLP	R	28	25	PIC18	16 KB 8 Kw	RW	2K	256	1.8V–5.5V	48 MHz	48 MHz	–	14	–	14	–	2	✓	–	–	–	1	1	–	–	–	–	2	2	–	1	1	–	✓	–	BOR	–	–	–	$1.65	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	
	PIC18F26K20 XLP	R	28	25	PIC18	64 KB 32 Kw	RW	3936	1024	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	1	1	–	–	–	–	–	3	–	1	1	–	–	–	PBOR	✓	–	–	$1.65	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	Temp*
	PIC18F25K50 XLP	R	28	25	PIC18	16 KB 16 Kw	RW	2K	256	1.8V–5.5V	48 MHz	48 MHz	–	14	–	14	–	2	✓	–	–	–	1	1	–	–	–	–	2	2	–	1	1	–	✓	–	BOR	–	–	–	$1.76	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	Crystal Free USB
	PIC18F25J11 XLP	R	28	21	PIC18	32 KB 16 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	10	–	2	✓	–	–	–	–	2	–	–	–	–	–	3	–	2	2	–	–	–	BOR	SW◊	–	–	$1.79	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F24J50 XLP	R	28	22	PIC18	16 KB 8 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	10	–	2	✓	–	–	–	–	2	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	SW◊	–	–	$1.86	SPDIP (SP), SOIC (SO), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F26K22 XLP	R	28	25	PIC18	64 KB 32 Kw	RW	3896	1024	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	17	–	17	–	2	✓	–	–	–	2	3	–	–	–	–	3	4	–	2	2	–	–	–	PBOR	✓	✓	✓	$1.92	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML)	Temp*
	PIC18F25K80 XLP	R	28	24	PIC18	32 KB 16 Kw	RW	3648	1024	1.8V–5.5V	64 MHz	8 MHz, 31 kHz	–	8	–	–	8	2	✓	–	–	–	4	1	–	–	–	–	2	3	–	2	1	–	–	✓	PBOR	✓	–	–	$1.93	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	Deep Sleep Mode
	PIC18F25J50 XLP	R	28	22	PIC18	32 KB 16 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	10	–	2	✓	–	–	–	–	–	2	–	–	–	2	3	–	2	2	–	✓	–	BOR	SW◊	–	–	$2.00	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F26J11 XLP	R	28	21	PIC18	64 KB 32 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	10	–	2	✓	–	–	–	–	–	2	–	–	–	2	3	–	2	2	–	–	–	BOR	SW◊	–	–	$2.07	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F26K80 XLP	R	28	24	PIC18	64 KB 32 Kw	RW	3648	1024	1.8V–5.5V	64 MHz	8 MHz, 31 kHz	–	8	–	–	8	2	✓	–	–	–	4	1	–	–	–	–	2	3	–	2	1	–	–	✓	PBOR	✓	–	–	$2.21	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	Deep Sleep Mode
	PIC18F26J13 XLP	R	28	23	PIC18	64 KB 32 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	–	10	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.24	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	SPI w/DMA
	PIC18F26J50 XLP	R	28	22	PIC18	64 KB 32 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	10	–	2	✓	–	–	–	–	–	2	–	–	–	2	3	–	2	2	–	✓	–	BOR	SW◊	–	–	$2.28	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F26J53 XLP	R	28	22	PIC18	64 KB 32 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	–	10	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	✓	–	BOR	✓	–	–	$2.45	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	SPI w/DMA
	PIC18F27J13 XLP	R	28	23	PIC18	128 KB 64 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	–	10	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.48	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	SPI w/DMA
	PIC18F27J53 XLP	R	28	22	PIC18	128 KB 64 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	10	–	–	10	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	✓	–	BOR	✓	–	–	$2.69	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)	SPI w/DMA

Products sorted by pin count followed by pricing.
† Pricing subject to change; please contact your Microchip representative for most current pricing.
◊ Software PLVD implemented via ADC.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

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	Product	Released (R) Not Released (NR)	Pins		Core	Memory				Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital										Communication						Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read/Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator			8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b/9b)	PWM	CCP	ECCP	PSMC (16-bit PWM)	CWG/COG	NCO	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD					
40/44-Pin	PIC16F59	R	40	32	BL	3 KB 2 Kw	–	134	–	2V–5.5V	20 MHz	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	$0.85	PDIP (P), TQFP (PT)	
	PIC16LF1904 XLP	R	40	36	EMR	7 KB 4 Kw	RW	256	–	1.8V–3.6V	20 MHz	16 MHz	116	14	–	14	–	–	–	–	–	–	–	–	–	–	–	1	1	–	1	–	–	–	–	–	–	$1.19	PDIP (P), TQFP (PT), 5 × 5 UQFN (MV)	Integrated LCD Driver, Temp*
	PIC16LF1907 XLP	R	40	36	EMR	14 KB 8 Kw	RW	512	–	1.8V–3.6V	20 MHz	16 MHz	116	14	–	14	–	–	–	–	–	–	–	–	–	–	–	1	1	–	1	–	–	–	–	–	–	$1.25	PDIP (P), TQFP (PT), 5 × 5 UQFN (MV)	Integrated LCD Driver, Temp*
	PIC16F1517 XLP	R	40	36	EMR	14 KB 8 Kw	RW	512	–	1.8V–5.5V	20 MHz	16 MHz	–	28	–	28	–	–	–	–	–	–	2	–	–	–	–	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$1.32	PDIP (P), TQFP (PT), 5 × 5 UQFN (MV)	Temp*
	PIC16F1717 XLP	NR	40	36	EMR	14 KB 8 Kw	RW	1K	–	1.8V–5.5V	32 MHz	16 MHz	–	28	–	28	–	2	–	2	1/1/0	2	2	–	–	0/1	1	4	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$1.36	PDIP (P), TQFP (PT), 5 × 5 UQFN (MV)	
	PIC16F1519 XLP	R	40	36	EMR	28 KB 16 Kw	RW	1024	–	1.8V–5.5V	20 MHz	16 MHz	–	28	–	28	–	–	–	–	–	–	2	–	–	–	–	2	1	–	1	1	–	–	–	PBOR	SW	–	✓	$1.37	PDIP (P), TQFP (PT), 5 × 5 UQFN (MV)	Temp*
	PIC16F724 XLP	R	40	36	MR	7 KB 4 Kw	RW	192	–	1.8V–5.5V	20 MHz	16 MHz	–	16	14	–	–	–	–	–	–	–	2	–	–	–	–	2	1	1	–	1	–	–	–	BOR	SW◊	–	✓	$1.40	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	Temp*
	PIC16F1719 XLP	NR	40	36	EMR	28 KB 16 Kw	RW	2K	–	1.8V–5.5V	32 MHz	16 MHz	–	28	–	28	–	2	–	2	1/1/0	2	2	–	–	0/1	1	4	4	1	–	1	1	–	–	–	POR/ LPBOR	–	–	✓	$1.41	PDIP (P), TQFP (PT), 5 × 5 UQFN (MV)	
	PIC16F1934 XLP	R	40	36	EMR	7 KB 4 Kw	RW	256	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	96	16	–	14	–	2	–	–	–	–	2	3	–	–	–	–	4	1	–	1	1	–	–	–	PBOR	SW◊	✓	✓	$1.47	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	Temp*
	PIC18F43K20 XLP	R	40	36	PIC18	8 KB 4 Kw	RW	512	256	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	14	–	14	–	2	–	–	–	–	1	1	–	–	–	–	1	3	–	1	1	–	–	–	BOR	✓	–	–	$1.47	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	
	PIC16F727 XLP	R	40	36	MR	14 KB 8 Kw	RW	368	–	1.8V–5.5V	20 MHz	16 MHz	–	16	14	–	–	–	–	–	–	–	2	–	–	–	–	2	1	1	–	1	–	–	–	BOR	SW◊	–	✓	$1.54	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	Temp*
	PIC16F1784 XLP	R	40	36	EMR	7 KB 4 Kw	RW	512	256	1.8V–5.5V	32 MHz	32 MHz	–	14	–	–	14	4	–	3	0/1/0	–	3	–	3	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	–	✓	$1.54	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	
	PIC16F1937 XLP	R	40	36	EMR	14 KB 8 Kw	RW	512	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	96	16	–	14	–	2	–	–	–	–	2	3	–	–	–	–	4	1	–	1	1	–	–	–	PBOR	SW◊	✓	✓	$1.54	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	Temp*
	PIC18F44K20 XLP	R	40	36	PIC18	16 KB 8 Kw	RW	768	256	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	14	–	14	–	2	–	–	–	–	1	1	–	–	–	–	1	3	–	1	1	–	–	–	PBOR	✓	–	–	$1.54	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	
	PIC16F1787 XLP	R	40	36	EMR	14 KB 8 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz	–	14	–	–	14	4	–	3	0/1/0	–	3	–	3	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	–	✓	$1.61	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	
	PIC16F1939 XLP	R	40	36	EMR	28 KB 16 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	96	16	–	14	–	2	–	–	–	–	2	3	–	–	–	–	4	1	–	1	1	–	–	–	PBOR	SW◊	✓	✓	$1.61	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	Temp*
	PIC18F45K20 XLP	R	40	36	PIC18	32 KB 16 Kw	RW	1536	256	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	14	–	14	–	2	–	–	–	–	1	1	–	–	–	–	1	3	–	1	1	–	–	–	PBOR	✓	–	–	$1.61	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	
	PIC16F884	R	40	36	MR	7 KB 4 Kw	RW	256	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	14	–	14	–	2	–	–	–	–	1	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.63	PDIP (P), TQFP (PT), 8 × 8 QFN (ML)	
	PIC18F44J10	R	40	32	PIC18	16 KB 8 Kw	RW	1024	–	2V–3.6V	40 MHz	31 kHz	–	13	–	13	–	2	–	–	–	–	1	1	–	–	–	–	1	2	–	1	2	–	–	–	BOR	–	–	–	$1.67	PDIP (P), TQFP (PT), QFN (ML)	
	PIC18F43K22 XLP	R	40	36	PIC18	8 KB 4 Kw	RW	512	256	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	28	–	28	–	2	✓	–	–	–	1	1	–	–	–	–	1	3	–	2	2	–	–	–	PBOR	P	P	P	$1.68	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	Temp*
	PIC18F1789 XLP	R	40	36	EMR	28 KB 16 kW	RW	2K	256	1.8V–5.5V	32 MHz	32 MHz	–	14	–	–	14	4	–	3	3/1/0	–	3	–	4	–	–	–	2	1	–	1	1	–	–	–	BOR	–	–	✓	$1.68	SPDIP (SP), SOIC (SO), SSOP (SS), 6 × 6 QFN (ML), 4 × 4 UQFN (MV)	
	PIC18F44K22 XLP	R	40	36	PIC18	16 KB 8 Kw	RW	768	256	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	28	–	28	–	2	✓	–	–	–	1	1	–	–	–	–	1	3	–	2	2	–	–	–	PBOR	P	P	P	$1.75	PDIP (P), TQFP (PT), 8 × 8 QFN (ML), 5 × 5 UQFN (MV)	Temp*
	PIC16F887	R	40	36	MR	14 KB 8 Kw	RW	368	256	2V–5.5V	20 MHz	8 MHz, 31 kHz	–	14	–	14	–	2	–	–	–	–	1	1	–	–	–	–	2	1	–	1	1	–	–	–	BOR	SW◊	✓	✓	$1.78	PDIP (P), TQFP (PT), 8 × 8 QFN (ML)	
	PIC18F45J10	R	40	32	PIC18	32 KB 16 Kw	RW	1024	–	2V–3.6V	40 MHz	31 kHz	–	13	–	13	–	2	–	–	–	–	1	1	–	–	–	–	1	2	–	1	2	–	–	–	BOR	–	–	–	$1.81	PDIP (P), TQFP (PT), QFN (ML)	

Products sorted by pin count followed by pricing.
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◊ Software PLVD implemented via ADC.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

8-BIT PIC® MICROCONTROLLERS

	Product	Released (R) Not Released (NR)	Pins		Core	Memory				Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital										Communication						Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read/Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator			8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b/9b)	PWM	CCP	ECCP	PSMC (16-bit PWM)	CWG/COG	NCO	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD				
40/44-Pin (Cont.)	PIC18F45J10	R	40	32	PIC18	32 KB 16 Kw	RW	1024	–	2V–3.6V	40 MHz	31 kHz	–	13	–	13	–	2	–	–	–	–	1	1	–	–	–	–	1	2	–	1	2	–	–	–	BOR	–	–	–	$1.81	PDIP (P), TQFP (PT), QFN (ML)	
	PIC18F46K20 XLP	R	40	36	PIC18	64 KB 32 Kw	RW	3936	1024	1.8V–3.6V	64 MHz	16 MHz, 31 kHz	–	14	–	14	–	2	–	–	–	–	1	1	–	–	–	–	1	3	–	1	1	–	–	–	PBOR	✓	–	–	$1.82	PDIP (P), TQFP (PT), 8×8 QFN (ML)	
	PIC18F45K22 XLP	R	40	36	PIC18	32 KB 16 Kw	RW	1536	256	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	28	–	28	–	2	✓	–	–	–	2	2	–	–	–	–	3	4	–	2	2	–	–	–	PBOR	✓	✓	✓	$1.89	PDIP (P), TQFP (PT), 8×8 QFN (ML), 5×5 UQFN (MV)	Temp*
	PIC18F44J11 XLP	R	40	34	PIC18	16 KB 8 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	13	–	2	✓	–	–	–	–	2	–	–	–	–	2	3	–	2	2	–	–	–	BOR	SW◊	–	–	$1.95	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F45K50 XLP	R	40	36	PIC18	32KB 16 kW	RW	2K	256	1.8V–5.5V	48 MHz	48 MHz	–	25	–	25	–	2	✓	–	–	–	1	1	–	–	–	–	2	2	–	1	1	–	✓	–	BOR	–	–	–	$1.99	PDIP (P), TQFP (PT), 5×5 UQFN (MV)	Crystal Free USB
	PIC18F45J11 XLP	R	40	34	PIC18	32 KB 16 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	13	–	2	✓	–	–	–	–	2	–	–	–	–	2	3	–	2	2	–	–	–	BOR	SW◊	–	–	$2.09	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F44J50 XLP	R	40	34	PIC18	16 KB 8 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	13	–	2	✓	–	–	–	–	2	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	SW◊	–	–	$2.16	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F45K80 XLP	R	40	35	PIC18	32 KB 16 Kw	RW	3648	1024	1.8V–5.5V	64 MHz	8 MHz, 31 kHz	–	11	–	–	11	2	✓	–	–	–	4	1	–	–	–	–	2	3	–	2	1	–	–	✓	PBOR	✓	✓	✓	$2.17	PDIP (P), TQFP (PT), QFN (ML)	Deep Sleep Mode
	PIC18F46K22 XLP	R	40	36	PIC18	64 KB 32 Kw	RW	3896	1024	1.8V–5.5V	64 MHz	16 MHz, 31 kHz	–	28	–	28	–	2	✓	–	–	–	2	2	–	–	–	–	3	4	–	2	2	–	–	–	PBOR	✓	✓	✓	$2.17	PDIP (P), TQFP (PT), 8×8 QFN (ML), 5×5 UQFN (MV)	Temp*
	PIC18F45J50 XLP	R	40	34	PIC18	32 KB 16 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	13	–	2	✓	–	–	–	–	2	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	SW◊	–	–	$2.30	TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F46J11 XLP	R	40	34	PIC18	64 KB 32 Kw	RW	3800	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	13	–	2	✓	–	–	–	–	2	–	–	–	–	2	3	–	2	2	–	–	–	BOR	SW◊	–	–	$2.37	PDIP (P), TQFP (PT), QFN (ML)	Peripheral Pin Select, Deep Sleep Mode
	PIC18F46K80 XLP	R	44	35	PIC18	64 KB 32 Kw	RW	3648	1024	1.8V–5.5V	64 MHz	8 MHz, 31 kHz	–	11	–	–	11	2	✓	–	–	–	4	1	–	–	–	–	2	3	–	2	1	–	–	✓	PBOR	✓	–	–	$2.45	PDIP (P), TQFP (PT), QFN (ML)	Deep Sleep Mode
	PIC18F46J13 XLP	R	44	34	PIC18	64 KB 32 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	–	13	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.52	TQFP (PT), QFN (ML)	SPI w/DMA
	PIC18F46J53 XLP	R	44	33	PIC18	64 KB 32 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	–	13	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	✓	–	BOR	✓	–	–	$2.73	TQFP (PT), QFN (ML)	Integrated LCD Driver, SPI w/DMA
	PIC18F47J13 XLP	R	44	34	PIC18	128 KB 64 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	–	13	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.76	TQFP (PT), QFN (ML)	SPI w/DMA
	PIC18F47J53 XLP	R	44	33	PIC18	128 KB 64 Kw	RW	3808	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	13	–	–	13	3	✓	–	–	–	7	3	–	–	–	–	4	4	–	2	2	–	✓	–	BOR	✓	–	–	$2.97	TQFP (PT), QFN (ML)	Integrated LCD Driver, SPI w/DMA
64-Pin	PIC16F1526 XLP	R	64	54	EMR	14 KB 8 Kw	RW	768	–	1.8V–5.5V	20 MHz	16 MHz	–	30	–	30	–	–	–	–	–	–	10	–	–	–	–	–	6	3	–	2	2	–	–	–	PBOR	SW◊	–	✓	$1.47	TQFP (PT), QFN (MR)	Temp*
	PIC16F1527 XLP	R	64	54	EMR	28 KB 16 Kw	RW	1536	–	1.8V–5.5V	20 MHz	16 MHz	–	30	–	30	–	–	–	–	–	–	10	–	–	–	–	–	6	3	–	2	2	–	–	–	PBOR	SW◊	–	✓	$1.54	TQFP (PT), QFN (MR)	Temp*
	PIC16F1946 XLP	R	64	53	EMR	14 KB 8 Kw	RW	512	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	184	17	–	17	–	3	–	–	–	–	2	3	–	–	–	–	4	1	–	2	2	–	–	–	BOR	SW◊	✓	✓	$1.75	TQFP (PT), QFN (MR)	Temp*
	PIC16F1947 XLP	R	64	53	EMR	28 KB 16 Kw	RW	1024	256	1.8V–5.5V	32 MHz	32 MHz, 31 kHz	184	17	–	17	–	3	–	–	–	–	2	3	–	–	–	–	4	1	–	2	2	–	–	–	BOR	SW◊	✓	✓	$1.82	TQFP (PT), QFN (MR)	Temp*
	PIC18F63J11	R	64	54	PIC18	8 KB 4 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	PBOR	SW◊	–	–	$2.20	TQFP (PT)	
	PIC18F65J10	R	64	50	PIC18	32 KB 16 Kw	RW	2048	–	2V–3.6V	40 MHz	31 kHz	–	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.25	TQFP (PT)	
	PIC18F64J11	R	64	54	PIC18	16 KB 8 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	BOR	SW◊	–	–	$2.27	TQFP (PT)	
	PIC18F63J90	R	64	51	PIC18	8 KB 4 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	132	12	–	12	–	2	–	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.35	TQFP (PT)	Integrated LCD Driver

Products sorted by pin count followed by pricing.
† Pricing subject to change; please contact your Microchip representative for most current pricing.
◊ Software PLVD implemented via ADC.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

8-BIT PIC® MICROCONTROLLERS

	Product	Released (R) Not Released (NR)	Pins		Core	Memory				Voltage Range	Operating Speed		LCD Segments	mTouch™ Channels	Analog Sensing & Measurement							Digital									Communication						Monitors		SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
			Total	I/O		Program	Self-Read/Write	Data RAM (B)	Data EE (B)		Maximum Speed	Internal Oscillator			8-bit ADC	10-bit ADC	12-bit ADC	Comparators	Charge Time Measurement Unit	Op Amp	DAC (5b/8b/9b)	PWM	CCP	ECCP	PSMC (16-bit PWM)	CWG/COG	NCO	CLC	8-bit Timer	16-bit Timer	AUSART	EUSART	I²C™/SPI	Ethernet (MAC/PHY)	USB 2.0 Device	CAN	BOR/PBOR	PLVD					
64-Pin (Cont.)	PIC18F65J11	R	64	54	PIC18	32 KB 16 Kw	RW	2048	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	BOR	SW◊	–	–	$2.37	TQFP (PT)	
	PIC18F65J94 XLP	R	64	51	PIC18	32 KB 16 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	224	24	–	16	16	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$2.38	QFN (MR), TQFP (PT)	USB & LCD
	PIC18F65K22 XLP	R	64	53	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	–	16	–	–	16	3	✓	–	–	–	5	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.39	TQFP (PT), QFN (MR)	
	PIC18F64J90	R	64	51	PIC18	16 KB 8 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	132	12	–	12	–	2	–	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.41	TQFP (PT)	Integrated LCD Driver
	PIC18F66J10	R	64	50	PIC18	64 KB 32 Kw	RW	2048	–	2V–3.6V	40 MHz	31 kHz	–	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.49	TQFP (PT)	
	PIC18F65J90	R	64	50	PIC18	32 KB 16 Kw	RW	2048	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	132	12	–	12	–	2	–	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.52	TQFP (PT)	Integrated LCD Driver
	PIC18F65K90 XLP	R	64	53	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	16	–	–	16	3	✓	–	–	–	5	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.53	TQFP (PT), QFN (MR)	Integrated LCD Driver
	PIC18F65J50	R	64	49	PIC18	32 KB 16 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	✓	–	–	$2.63	TQFP (PT)	
	PIC18F66J11	R	64	50	PIC18	64 KB 32 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.63	TQFP (PT)	
	PIC18F66J94 XLP	R	64	51	PIC18	64 KB 32 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	224	24	–	16	16	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$2.69	QFN (MR), TQFP (PT)	USB & LCD
	PIC18F66J93	R	64	51	PIC18	64 KB 32 Kw	RW	3900	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	132	12	–	–	12	2	✓	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.70	TQFP (PT)	Integrated LCD Driver, RTCC
	PIC18F65K80 XLP	R	64	54	PIC18	32 KB 16 Kw	RW	3648	1024	1.8V–5.5V	64 MHz	8 MHz, 31 kHz	–	11	–	–	11	2	✓	–	–	–	4	1	–	–	–	–	2	3	–	2	1	–	–	✓	PBOR	✓	–	–	$2.70	TQFP (PT), QFN (MR)	Deep Sleep Mode
	PIC18F66K22 XLP	R	64	53	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	–	16	–	–	16	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$2.70	TQFP (PT), QFN (MR)	
	PIC18F67J10	R	64	50	PIC18	128 KB 64 Kw	RW	3936	–	2V–3.6V	40 MHz	31 kHz	–	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.77	TQFP (PT)	
	PIC18F66K90 XLP	R	64	53	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	16	–	–	16	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$2.84	TQFP (PT), QFN (MR)	Integrated LCD Driver
	PIC18F66J50	R	64	49	PIC18	64 KB 32 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	✓	–	–	$2.90	TQFP (PT)	
	PIC18F67J11	R	64	50	PIC18	128 KB 64 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	11	–	11	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.93	TQFP (PT)	
	PIC18F67J94 XLP	R	64	51	PIC18	128 KB 64 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	224	24	–	16	16	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$2.93	QFN (MR), TQFP (PT)	USB & LCD
	PIC18F67K22 XLP	R	64	53	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	–	16	–	–	16	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$2.94	TQFP (PT), QFN (MR)	
	PIC18F66K80 XLP	R	64	54	PIC18	64 KB 32 Kw	RW	3648	1024	1.8V–5.5V	64 MHz	8 MHz, 31 kHz	–	11	–	–	11	2	✓	–	–	–	4	1	–	–	–	–	2	3	–	2	1	–	–	✓	PBOR	✓	–	–	$2.98	TQFP (PT), QFN (MR)	Deep Sleep Mode
	PIC18F67J93	R	64	51	PIC18	128 KB 64 Kw	RW	3900	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	132	12	–	–	12	2	✓	–	–	–	2	–	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$3.00	TQFP (PT)	Integrated LCD Driver, RTCC
	PIC18F67K90 XLP	R	64	53	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	132	16	–	–	16	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$3.08	TQFP (PT), QFN (MR)	Integrated LCD Driver
	PIC18F67J50	R	64	49	PIC18	128 KB 64 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	8	–	8	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	✓	–	–	$3.19	TQFP (PT)	

Products sorted by pin count followed by pricing.
† Pricing subject to change; please contact your Microchip representative for most current pricing.
◊ Software PLVD implemented via ADC.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

8-BIT PIC® MICROCONTROLLERS

	Product	Released (R) Not Released (NR)	Pins: Total	Pins: I/O	Core	Memory: Program	Memory: Self-Read/Write	Memory: Data RAM (B)	Memory: Data EE (B)	Voltage Range	Operating Speed: Maximum Speed	Operating Speed: Internal Oscillator	LCD Segments	mTouch™ Channels	Analog Sensing & Measurement: 8-bit ADC	Analog Sensing & Measurement: 10-bit ADC	Analog Sensing & Measurement: 12-bit ADC	Analog Sensing & Measurement: Comparators	Analog Sensing & Measurement: Charge Time Measurement Unit	Analog Sensing & Measurement: Op Amp	Analog Sensing & Measurement: DAC (5b/8b)	Digital: PWM	Digital: CCP	Digital: ECCP	Digital: PSMC (16-bit PWM)	Digital: CWG/COG	Digital: NCO	Digital: CLC	Digital: 8-bit Timer	Digital: 16-bit Timer	Communication: AUSART	Communication: EUSART	Communication: I²C™/SPI	Communication: Ethernet (MAC/PHY)	Communication: USB 2.0 Device	Communication: CAN	Monitors: BOR/PBOR	Monitors: PLVD	SR-Latch	Timer 1 Gate	5 ku Pricing†	Packages (Designator)	Special Features
80-Pin	PIC18F83J11	R	80	70	PIC18	8 KB 4 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	SW◊	–	–	$2.46	TQFP (PT)	
	PIC18F85J10	R	80	66	PIC18	32 KB 16 Kw	RW	2048	–	2V–3.6V	40 MHz	31 kHz	–	15	–	15	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.49	TQFP (PT)	
	PIC18F84J11	R	80	70	PIC18	16 KB 8 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	SW◊	–	–	$2.52	TQFP (PT)	
	PIC18F83J90	R	80	66	PIC18	8 KB 4 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	192	12	–	12	–	2	–	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.60	TQFP (PT)	Integrated LCD Driver
	PIC18F85J11	R	80	70	PIC18	32 KB 16 Kw	RW	2048	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	SW◊	–	–	$2.63	TQFP (PT)	
	PIC18F85J94 XLP	R	80	67	PIC18	32 KB 16 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	352	24	–	24	24	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$2.65	TQFP (PT)	USB & LCD
	PIC18F85K22 XLP	R	80	69	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz		24	–	–	24	3	✓	–	–	–	5	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.66	TQFP (PT)	
	PIC18F84J90	R	80	66	PIC18	16 KB 8 Kw	RW	1024	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	192	12	–	12	–	2	–	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.67	TQFP (PT)	Integrated LCD Driver
	PIC18F86J10	R	80	66	PIC18	64 KB 32 Kw	RW	2048	–	2V–3.6V	40 MHz	31 kHz	–	15	–	15	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.74	TQFP (PT)	
	PIC18F85J90	R	80	66	PIC18	32 KB 16 Kw	RW	2048	–	2V–3.6V	40 MHz	8 MHz, 31 kHz	192	12	–	12	–	2	–	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.77	TQFP (PT), LQFP (PL)	Integrated LCD Driver
	PIC18F85K90 XLP	R	80	69	PIC18	32 KB 16 Kw	RW	2048	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	24	–	–	24	3	✓	–	–	–	5	3	–	–	–	–	4	4	–	2	2	–	–	–	BOR	✓	–	–	$2.80	TQFP (PT)	Integrated LCD Driver
	PIC18F85J50	R	80	65	PIC18	32 KB 16 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	✓	–	–	$2.90	TQFP (PT)	
	PIC18F86J11	R	80	66	PIC18	64 KB 32 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	15	–	15	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$2.90	TQFP (PT)	
	PIC18F86J94 XLP	R	80	67	PIC18	64 KB 32 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	352	24	–	24	24	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$2.95	TQFP (PT)	USB & LCD
	PIC18F86J93	R	80	67	PIC18	64 KB 32 Kw	RW	3900	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	192	12	–	–	12	2	✓	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$2.97	TQFP (PT)	Integrated LCD Driver, RTCC
	PIC18F86K22 XLP	R	80	69	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz		24	–	–	24	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$2.97	TQFP (PT)	
	PIC18F87J10	R	80	66	PIC18	128 KB 64 Kw	RW	3936	–	2V–3.6V	40 MHz	31 kHz	–	15	–	15	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$3.02	TQFP (PT), LQFP (PL)	
	PIC18F86K90 XLP	R	80	69	PIC18	64 KB 32 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	24	–	–	24	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$3.11	TQFP (PT)	Integrated LCD Driver
	PIC18F86J50	R	80	65	PIC18	64 KB 32 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	✓	–	–	$3.15	TQFP (PT)	
	PIC18F87J11	R	80	66	PIC18	128 KB 64 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	15	–	15	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	–	–	BOR	✓	–	–	$3.19	TQFP (PT)	
	PIC18F87J94 XLP	R	80	67	PIC18	128 KB 64 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	352	24	–	24	24	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$3.19	TQFP (PT)	USB & LCD
	PIC18F87K22 XLP	R	80	69	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz		24	–	–	24	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$3.21	TQFP (PT)	
	PIC18F87J93	R	80	67	PIC18	128 KB 64 Kw	RW	3900	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	192	12	–	–	12	2	✓	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$3.26	TQFP (PT)	Integrated LCD Driver, RTCC
	PIC18F87K90 XLP	R	80	69	PIC18	128 KB 64 Kw	RW	4096	1024	1.8V–5.5V	64 MHz	31 kHz, 500 kHz, 16 MHz	192	24	–	–	24	3	✓	–	–	–	7	3	–	–	–	–	6	5	–	2	2	–	–	–	BOR	✓	–	–	$3.35	TQFP (PT)	Integrated LCD Driver
	PIC18F87J50	R	80	65	PIC18	128 KB 64 Kw	RW	3904	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	–	12	–	12	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	–	✓	–	BOR	✓	–	–	$3.44	TQFP (PT)	
	PIC18F86J60	R	80	55	PIC18	64 KB 32 Kw	RW	3808	–	2V–3.6V	42 MHz	31 kHz	–	15	–	15	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	1	1	–	–	BOR	✓	–	–	$3.63	TQFP (PT)	Integrated MAC, 10Base-T PHY
	PIC18F87J60	R	80	55	PIC18	128 KB 64 Kw	RW	3808	–	2V–3.6V	42 MHz	32 kHz, 31 kHz	–	15	–	15	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	1	1	–	–	BOR	✓	–	–	$3.92	TQFP (PT)	Integrated MAC, 10Base-T PHY
	PIC18F86J72	R	80	51	PIC18	64 KB 32 Kw	RW	3923	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	132	12	–	–	12	2	✓	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$4.12	TQFP (PT)	2 × 24-bit ADC, RTCC
	PIC18F87J72	R	80	51	PIC18	128 KB 64 Kw	RW	3923	–	2V–3.6V	48 MHz	8 MHz, 31 kHz	132	12	–	–	12	2	✓	–	–	–	2	–	–	–	–	1	3	1	1	1	–	–	–	BOR	✓	–	–	$4.35	TQFP (PT)	2 × 24-bit ADC, RTCC
100-Pin	PIC18F95J94 XLP	R	100	85	PIC18	32 KB 16 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	480	24	–	24	24	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$2.83	TQFP (PT/PF)	USB & LCD
	PIC18F96J94 XLP	R	100	85	PIC18	64 KB 32 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	480	24	–	24	24	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$3.14	TQFP (PT/PF)	USB & LCD
	PIC18F97J94 XLP	R	100	85	PIC18	128 KB 64 Kw	RW	4096	–	2V–3.6V	64 MHz	64 MHz	480	24	–	24	24	3	✓	–	–	✓	7	3	–	–	–	–	4	4	–	4	2	–	✓	–	BOR	–	–	✓	$3.37	TQFP (PT/PF)	USB & LCD
	PIC18F96J60	R	100	70	PIC18	64 KB 32 Kw	RW	3808	–	2V–3.6V	42 MHz	31 kHz	–	16	–	16	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	1	–	–	BOR	✓	–	–	$3.84	TQFP (PT)	Integrated MAC, 10Base-T PHY
	PIC18F97J60	R	100	70	PIC18	128 KB 64 Kw	RW	3808	–	2V–3.6V	42 MHz	31 kHz	–	16	–	16	–	2	–	–	–	–	2	3	–	–	–	–	2	3	–	2	2	1	–	–	BOR	✓	–	–	$4.13	TQFP (PT), LQFP (PL)	Integrated MAC, 10Base-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.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

16-BIT PIC® MICROCONTROLLERS (PIC24F)

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement				LCD Segments	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer[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	16-bit ADC (diff ch)	Comparators						Digital Communication	USB 2.0 (Peripheral, Host, OTC)					System Mgmt. Features	
14-Pin	PIC24F04KL100 XLP	R	12	PIC24	4	512	AN1095[1]	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	–	–	–	1	–	–	2	2	2	1 UART, 1 SPI/I²C™ (MSSP)	–	–	–	–	$1.06	BOR, HLVD, POR, PWRT, WDT, XLP	PDIP (P), TSSOP (ST)
	PIC24F04KA200 XLP	R	12	PIC24	4	512	AN1095[1]	–	1.8V3.6V	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)
	PIC24F08KL200 XLP	R	12	PIC24	8	512	AN1095[1]	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	7	–	–	1	–	–	2	2	2	1 UART, 1 SPI/I²C (MSSP)	–	–	–	–	$1.25	BOR, HLVD, POR, PWRT, WDT, XLP	PDIP (P), TSSOP (ST)
20-Pin	PIC24F08KM101 XLP	R	18	PIC24	8	1024	512	–	1.8V–5.5V	16	8 MHz, 32kHz	✓	–	16	–	1	–	–	5	5	11	1 UART, 1 SPI/I²C (MSSP)	–	–	✓	–	$1.08	BOR, HLVD, POR,WDT, OST, XLP	PDIP (P), SOIC (SO)
	PIC24F04KL101 XLP	R	17	PIC24	4	512	AN1095[1]	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	–	–	–	1	–	–	2	2	2	1 UART, 1 SPI/I²C (MSSP)	–	–	–	–	$1.15	BOR, HLVD, POR, PWRT, WDT, XLP	PDIP (P), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ)
	PIC24F04KA201 XLP	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	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24F08KL201 XLP	R	17	PIC24	8	512	AN1095[1]	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	12	–	–	1	–	–	2	2	2	1 UART, 1 SPI/I²C (MSSP)	–	–	–	–	$1.30	BOR, HLVD, POR, PWRT, WDT, XLP	PDIP (P), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ)
	PIC24F08KL301 XLP	R	18	PIC24	8	1024	256	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	–	–	–	2	–	–	6	3	2	2 UART, 2 SPI/I²C (MSSP)	–	–	–	–	$1.27	BOR, HLVD, POR, PWRT, WDT, XLP	PDIP (P), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ)
	PIC24F08KL401 XLP	R	18	PIC24	8	1024	512	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	12	–	–	2	–	–	6	3	2	2 UART, 2 SPI/I²C (MSSP)	–	–	–	–	$1.36	BOR, HLVD, POR, PWRT, WDT, XLP	PDIP (P), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ)
	PIC24F16KL401 XLP	R	18	PIC24	16	1024	512	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	12	–	–	2	–	–	6	3	2	2 UART, 2 SPI/I²C (MSSP)	–	–	–	–	$1.43	BOR, HLVD, POR, PWRT, WDT, XLP	PDIP (P), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ)
	PIC24F08KA101 XLP	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	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24F16KA101 XLP	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	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24FJ32MC101	R	15	PIC24	32	2048	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	6	–	–	3	–	–	8	3	5	1 UART, 1 SPI, 1 I²C	–	–	✓	✓	$1.68	BOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24FJ16MC101	R	15	PIC24	16	1024	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	4	–	–	3	–	–	8	3	3	1 UART, 1 SPI, 1 I²C	–	–	✓	✓	$1.73	BOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24F16KA301 XLP	R	18	PIC24	16	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	9	–	3	–	–	3	3	5	2 UART, 2 SPI, 2 I²C	–	–	✓	–	$1.86	PWRT, HLVD, POR, OST, WDT	SPDIP (SP), SSOP (SS), SOIC (SO)
	PIC24F32KA301 XLP	R	18	PIC24	32	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	9	–	3	–	–	3	3	5	2 UART, 2 SPI, 2 I²C	–	–	✓	–	$2.00	PWRT, HLVD, POR, OST, WDT	SPDIP (SP), SSOP (SS), SOIC (SO)
28-Pin	PIC24F08KL302 XLP	R	24	PIC24	8	1024	256	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	–	–	–	2	–	–	6	3	2	2 UART, 2 SPI/I²C (MSSP)	–	–	–	–	$1.32	BOR, HLVD, POR, PWRT, WDT, XLP	SPDIP (SP), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ), 6 × 6 QFN (ML)
	PIC24F08KL402 XLP	R	24	PIC24	8	1024	512	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	12	–	–	2	–	–	6	3	2	2 UART, 2 SPI/I²C (MSSP)	–	–	–	–	$1.40	BOR, HLVD, POR, PWRT, WDT, XLP	SPDIP (SP), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ), 6 × 6 QFN (ML)
	PIC24F16KL402 XLP	R	24	PIC24	16	1024	512	–	1.8V–3.6V	16	8 MHz, 32 kHz	–	12	–	–	2	–	–	6	3	2	2 UART, 2 SPI/I²C (MSSP)	–	–	–	–	$1.47	BOR, HLVD, POR, PWRT, WDT, XLP	SPDIP (SP), SOIC (SO), SSOP (SS), 5 × 5 QFN (MQ), 6 × 6 QFN (ML)
	PIC24F08KA102 XLP	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), SOIC (SO), SSOP (SS), QFN (ML)
	PIC24F16KA102 XLP	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), SOIC (SO), SSOP (SS), QFN (ML)
	PIC24FJ16MC102	R	21	PIC24	16	1024	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	6	–	–	3	–	–	8	3	3	1 UART, 1 SPI, 1 I²C	–	–	✓	✓	$1.68	BOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML) TLA (TL)
	PIC24FJ16MC101	R	15	PIC24	16	1024	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	4	–	–	3	–	–	8	3	3	1 UART, 1 SPI, 1 I²C	–	–	✓	✓	$1.73	BOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC32FJ32MC102	R	21	PIC24	32	2048	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	8	–	–	3	–	–	8	3	5	1 UART, 1 SPI, 1 I²C	–	–	✓	✓	$1.73	BOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL), VTLA (TL)

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

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

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

Products sorted by pin count followed by pricing.
† Pricing subject to change; please contact your Microchip representative for most current pricing.
◊ Software PLVD implemented via ADC.
* Integrated Temperature Indicator: Reference Application Note AN1333 for implementation.
XLP eXtreme Low Power variants available.

16-BIT PIC® MICROCONTROLLERS (PIC24F)

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					LCD Segments	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer[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	16-bit ADC (diff ch)	Comparators						Digital Communication	USB 2.0 (Peripheral, Host, OTC)					System Mgmt. Features	
28-Pin (Cont.)	PIC32FJ32MC102	R	21	PIC24	32	2048	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	8	–	–	3	–	–	8	3	5	1 UART, 1 SPI, 1 I²C	–	–	✓	✓	$1.73	BOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS), QFN (MQL), VTLA (TL)
	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), SOIC (SO), SSOP (SS), QFN (ML)
	PIC24F08KM102 XLP	R	24	PIC24	8	1024	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	19	–	1	–	–	5	5	11	1 UART, 1 SPI/I²C (MSSP)	–	–	✓	–	$1.75	BOR, HLVD, POR,WDT, OST, XLP	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24F16KM102 XLP	R	24	PIC24	16	1024	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	19	–	1	–	–	5	5	11	1 UART, 1 SPI/I²C (MSSP)	–	–	✓	–	$1.82	BOR, HLVD, POR,WDT, OST, XLP	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24F08KM202 XLP	R	24	PIC24	8	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	19	–	3	–	–	5	5	11	2 UART, 2 SPI/I²C (MSSP)	–	–	✓	–	$1.82	BOR, HLVD, POR,WDT, OST, XLP	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MQL)
	PIC24F16KM202 XLP	R	24	PIC24	16	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	19	–	3	–	–	5	5	11	2 UART, 2 SPI/I²C (MSSP)	–	–	✓	–	$1.89	BOR, HLVD, POR,WDT, OST, XLP	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MQL)
	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), SOIC (SO), SSOP (SS), QFN (ML)
	PIC24F16KA302 XLP	R	24	PIC24	16	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	10	–	3	–	–	3	3	5	2 UART, 2 SPI, 2 I²C	–	–	✓	–	$2.06	PWRT, HLVD, POR, OST, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)
	PIC24F32KA302 XLP	R	24	PIC24	32	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	10	–	3	–	–	3	3	5	2 UART, 2 SPI, 2 I²C	–	–	✓	–	$2.20	PWRT, HLVD, POR, OST, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (ML)
	PIC24FJ32GA102 XLP	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)
	PIC24FJ32GB002 XLP	R	19	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), SOIC (SO), SSOP (SS), QFN (ML)
	PIC24FJ64GA102 XLP	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 XLP	R	19	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)
	PIC24FJ32MC104	R	35	PIC24	32	2048	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	14	–	–	3	–	–	8	3	5	1 UART, 1 SPI, 1 I²C	–	–	✓	✓	$2.02	BOR POR, WDT	TQFP (PT), TLA, QFN (ML)
	PIC24F16KM104 XLP	R	38	PIC24	16	1024	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	22	–	1	–	–	5	5	11	1 UART, 1 SPI/I²C (MSSP)	–	–	✓	–	$2.06	BOR, HLVD, POR,WDT, OST, XLP	TQFP, QFN, UQFN
	PIC24F08KM204 XLP	R	38	PIC24	8	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	22	–	3	–	–	5	5	11	2 UART, 2 SPI/I²C (MSSP)	–	–	✓	–	$2.06	BOR, HLVD, POR,WDT, OST, XLP	TQFP, QFN, UQFN
	PIC24F16KM204 XLP	R	38	PIC24	16	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	22	–	3	–	–	5	5	11	2 UART, 2 SPI/I²C (MSSP)	–	–	✓	–	$2.13	BOR, HLVD, POR,WDT, OST, XLP	TQFP, QFN, UQFN
	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)
	PIC24F16KA304 XLP	R	38	PIC24	16	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	16	–	3	–	–	3	3	5	2 UART, 2 SPI, 2 I²C	–	–	✓	–	$2.30	PWRT, HLVD, POR, OST, WDT	TQFP (PT), QFN (ML), UQFN (MV)
	PIC24FJ32GA104 XLP	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)
	PIC24F32KA304 XLP	R	38	PIC24	32	2048	512	–	1.8V–5.5V	16	8 MHz, 32 kHz	✓	–	16	–	3	–	–	3	3	5	2 UART, 2 SPI, 2 I²C	–	–	✓	–	$2.44	PWRT, HLVD, POR, OST, WDT	TQFP (PT), QFN (ML), UQFN (MV)
	PIC24FJ32GB004 XLP	R	33	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 XLP	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 XLP	R	33	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)

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

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

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

Products sorted by pin count followed by pricing.

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

16-BIT PIC® MICROCONTROLLERS (PIC24F)

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					LCD Segments	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer[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	16-bit ADC (diff ch)	Comparators						Digital Communication	USB 2.0 (Peripheral, Host, OTC)					System Mgmt. Features	
64-Pin	PIC24FJ64GA306 XLP	R	53	PIC24	64	8192	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	16	–	3	240	–	7	7	5	4 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.77	BOR, LVD, POR, WDT, XLP, Deep Sleep	TQFP (PT), QFN (MR)
	PIC24FJ128GA306 XLP	R	53	PIC24	128	8192	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	16	–	3	240	–	7	7	5	4 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$3.00	BOR, LVD, POR, WDT, XLP, Deep Sleep	TQFP (PT), QFN (MR)
	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)
	PIC24FJ64GA106	R	53	PIC24	64	16384	AN1095[1]	–	2V–3.6V	16	8 MHz, 32 kHz	✓	16	–	–	3	–	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$3.32	BOR, LVD, POR, WDT	TQFP (PT), QFN (MR)
	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), QFN (MR)
	PIC24FJ64GC006 XLP	R	48	PIC24	64	8	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	30	2	3	248	–	9	9	5	4 UART, 2 SPI, 2 I²C,	✓	✓	✓	✓	$3.63	BOR, HLVD, POR,WDT, OST, XLP, V_{BAT}	QFN (MR), 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), QFN (MR)
	PIC24FJ128GC006 XLP	R	48	PIC24	128	8192	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	30	2	3	248	–	9	9	5	4 UART, 2 SPI, 2 I²C	✓	✓	✓	✓	$3.85	BOR, HLVD, POR, WDT, OST, XLP, V_{BAT}	QFN (MR), 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), QFN (MR)
	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), QFN (MR)
	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)
	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), QFN (MR)
	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	PIC24FJ64GA308 XLP	R	69	PIC24	64	8192	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	16	–	3	368	–	7	7	5	4 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$2.98	BOR, LVD, POR, WDT, XLP, Deep Sleep	TQFP (PT)
	PIC24FJ128GA308 XLP	R	69	PIC24	128	8192	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	16	–	3	368	–	7	7	5	4 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$3.23	BOR, LVD, POR, WDT, XLP, Deep Sleep	TQFP (PT)
	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)
	PIC24FJ64GA108	R	69	PIC24	64	16384	AN1095[1]	–	2V–3.6V	16	8 MHz, 32 kHz	✓	16	–	–	3	–	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$3.58	BOR, LVD, 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)
	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)
	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)

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

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

16-BIT PIC® MICROCONTROLLERS (PIC24F)

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					LCD Segments	Graphics Controller	Output Compare/PWM	Input Capture	16-bit Timer[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	16-bit ADC (diff ch)	Comparators						Digital Communication	USB 2.0 (Peripheral, Host, OTG)					System Mgmt. Features	
100-Pin	PIC24FJ64GA310 XLP	R	85	PIC24	64	8192	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	24	–	3	480	–	7	7	5	4 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$3.16	BOR, LVD, POR, WDT, Deep Sleep	TQFP (PT), BGA121 (BG)
	PIC24FJ128GA310 XLP	R	85	PIC24	128	8192	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	24	–	3	480	–	7	7	5	4 UART, 2 SPI, 2 I²C	–	✓	✓	✓	$3.42	BOR, LVD, POR, WDT, Deep Sleep	TQFP (PT), BGA121 (BG)
	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)
	PIC24FJ64GA110	R	85	PIC24	64	16384	AN1095[1]	–	2V–3.6V	16	8 MHz, 32 kHz	✓	16	–	–	3	–	–	9	9	5	4 UART, 3 SPI, 3 I²C	–	✓	✓	✓	$3.79	BOR, LVD, POR, WDT	TQFP (PT), BGA121 (BG)
	PIC24FJ64GC010 XLP	R	80	PIC24	64	8	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	50	2	3	472	–	9	9	5	4 UART, 2 SPI, 2 I²C,	✓	✓	✓	✓	$3.79	BOR, HLVD, POR,WDT, OST, XLP, VBAT	TQFP (PT), BGA (BG)
	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)
	PIC24FJ128GC010 XLP	R	80	PIC24	128	8	AN1095[1]	6	2V–3.6V	16	8 MHz, 32 kHz	✓	–	50	2	3	472	–	9	9	5	4 UART, 2 SPI, 2 I²C,	✓	✓	✓	✓	$4.02	BOR, HLVD, POR,WDT, OST, XLP, VBAT	TQFP (PT), BGA (BG)
	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), BGA121 (BG)
	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), BGA121 (BG)
	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), BGA121 (BG)
	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), BGA121 (BG)
	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), BGA121 (BG)
	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 (150°C).
Note 1: See Application Note "AN1095: Emulating Data EEPROM".
2: Two 16-bit timers can be concatenated to form a 32-bit timer.

16-BIT PIC® MICROCONTROLLERS (PIC24H/E)

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Output Compare/PWM	Motor Control PWM Ch.	QEI	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	Op Amps						Digital Communication	CAN	FS USB OTG					System Mgmt. Features	
18-Pin	PIC24HJ12GP201	R	13	PIC24	12	1	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)
28-Pin	PIC24EP32MC202	R	21	PIC24	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$1.89	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP32GP202	R	21	PIC24	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$1.89	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP64MC202	R	21	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.45	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP64GP202	R	21	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.45	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP128MC202	R	21	PIC24	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.66	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP128GP202	R	21	PIC24	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.66	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)

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

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

16-BIT PIC® MICROCONTROLLERS (PIC24H/E)

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement					Output Compare/PWM	Motor Control PWM Ch.	QEI	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	Op Amps						Digital Communication	CAN	FS USB OTG					System Mgmt. Features	
28-Pin (Cont.)	PIC24EP256MC202	R	21	PIC24	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	10	6	1	4	5	2 UART, 2 SPI, 1 I²C™	–	–	–	✓	✓	$3.14	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP256GP202	R	21	PIC24	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.14	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP512MC202	R	21	PIC24	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.50	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	PIC24EP512GP202	R	21	PIC24	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	6 ch	1 +2*	2	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.50	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
36-Pin	PIC24EP64MC203	R	25	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	8 ch	1 +2*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.52	PBOR, POR, WDT	VTLA (TL)
	PIC24EP64GP203	R	25	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	8 ch	1 +2*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.52	PBOR, POR, WDT	VTLA (TL)
	PIC24EP32MC203	R	25	PIC24	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	8 ch	1 +2*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$1.96	PBOR, POR, WDT	VTLA (TL)
	PIC24EP32GP203	R	25	PIC24	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	8 ch	1 +2*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$1.96	PBOR, POR, WDT	VTLA (TL)
44-Pin	PIC24EP32MC204	R	35	PIC24	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.03	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP32GP204	R	35	PIC24	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.03	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP64MC204	R	35	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.59	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP64GP204	R	35	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.59	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP128MC204	R	35	PIC24	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.80	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP128GP204	R	35	PIC24	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.80	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP256MC204	R	35	PIC24	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.28	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP256GP204	R	35	PIC24	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.28	PBOR, POR, WDT	VTLA(TL), QFN(ML), TQFP(PT)
	PIC24EP512MC204	R	35	PIC24	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.64	PBOR, POR, WDT	QFN(ML), TQFP(PT)
	PIC24EP512GP204	R	35	PIC24	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	9 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.64	PBOR, POR, WDT	QFN(ML), TQFP(PT)
64-Pin	PIC24EP64MC206	R	53	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.73	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP64GP206	R	53	PIC24	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.73	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP128MC206	R	53	PIC24	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.94	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP128GP206	R	53	PIC24	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$2.94	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP256MC206	R	53	PIC24	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.42	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP256GP206	R	53	PIC24	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.42	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP512MC206	R	53	PIC24	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	10	6	1	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.78	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP512GP206	R	53	PIC24	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	16 ch	1 +3*	3	4	–	–	4	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.78	PBOR, POR, WDT	QFN(MR), TQFP(PT)
	PIC24EP512GP806	R	53	PIC24	536	52	AN1095[1]	15	3V–3.6V	70	7.37 MHz, 32 kHz	✓	–	24 ch, 2 A/D	3	–	16	–	–	16	9	4 UART, 2 SPI, 2 I²C	2	–	✓	✓	✓	$5.60	PBOR, POR, WDT	QFN(MR), TQFP(PT)
100-Pin	PIC24HJ64GP210A	R	85	PIC24	64	8	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)
	PIC24HJ64GP510A	R	85	PIC24	64	8	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)
	PIC24HJ128GP210A	R	85	PIC24	128	8	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)
	PIC24HJ128GP310A	R	85	PIC24	128	16	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)
	PIC24HJ128GP510A	R	85	PIC24	128	8	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)
	PIC24HJ256GP210A	R	85	PIC24	256	16	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)
	PIC24HJ256GP610A	R	85	PIC24	256	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	–	–	32 ch, 2 ADC	–	–	8	–	–	8	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	–	$3.88	PBOR, POR, WDT	TQFP (PT, PF)
	PIC24EP256GU810	R	85	PIC24	280	28	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	–	–	32 ch, 2 ADC	3	–	16	–	–	16	9	4 UART, 4 SPI, 2 I²C	2	✓	✓	✓	✓	$5.70	PBOR, POR, WDT	TQFP (PT, PF)
	PIC24EP512GU810	R	85	PIC24	536	52	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	–	–	32 ch, 2 ADC	3	–	16	–	–	16	9	4 UART, 4 SPI, 2 I²C	2	✓	✓	✓	✓	$5.37	PBOR, POR, WDT	TQFP (PT, PF)
144-Pin	PIC24EP256GP814	R	122	PIC24	280	28	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	–	–	32 ch, 2 ADC	3	–	16	–	–	16	9	4 UART, 4 SPI, 2 I²C	2	✓	✓	✓	✓	$6.31	PBOR, POR, WDT	TQFP (PT, PF)
	PIC24EP512GU814	R	122	PIC24	536	28	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	–	–	32 ch, 2 ADC	3	–	16	–	–	16	9	4 UART, 4 SPI, 2 I²C	2	✓	✓	✓	✓	$6.99	PBOR, POR, WDT	TQFP (PT, PF)

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

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

dsPIC33 DSC GENERAL PURPOSE AND MOTOR CONTROL FAMILY

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement				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	Charge Time Measurement Unit	ADC 10/12-bit 1100/500 ksps	DAC	Comparators	Op Amps						Digital Communication	CAN	FS USB OTG					System Mgmt. Features	
20-Pin	dsPIC33FJ16GP101*	R	13	dsPIC®	16	1	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	4 ch (10-bit)	–	3	–	2	3	–	–	3	1 UART, 1 SPI, 1 I²C™	–	–	–	✓	✓	$1.57	BOR, POR, WDT	PDIP(P), SOIC(SO), QFN (MQL), SSOP (SS)
	dsPIC33FJ16MC101*	R	15	dsPIC	16	1	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	4 ch (10-bit)	–	3	–	2	3	6	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	✓	$1.57	BOR, POR, WDT	PDIP(P), SOIC(SO), QFN (MQL), SSOP (SS)
	dsPIC33FJ32GP101*	R	13	dsPIC	32	2	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	6 ch	–	3	–	2	3	–	–	5	1 UART, 1 SPI, 1 I²C	–	–	–	✓	✓	$1.68	BOR, POR, WDT	PDIP(P), SOIC(SO), QFN (MQL), SSOP (SS)
	dsPIC33FJ32MC101*	R	15	dsPIC	32	2	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	6 ch	–	3	–	2	3	6	–	5	1 UART,1 SPI, 1 I²C	–	–	–	✓	✓	$1.68	BOR, POR, WDT	PDIP(P), SOIC (SO), SSOP (SS)
28-Pin	dsPIC33FJ16GP102*	R	21	dsPIC	16	1	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	6 ch (10-bit)	–	3	–	2	3	-	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	✓	$1.68	BOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MQL), VTLA (TL)
	dsPIC33FJ16MC102*	R	21	dsPIC	16	1	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	6 ch (10-bit)	–	3	–	2	3	6	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	✓	$1.68	BOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MQL), VTLA (TL)
	dsPIC33FJ32GP102*	R	21	dsPIC	32	2	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	8 ch	–	3	–	2	3	–	–	5	1 UART, 1 SPI, 1 I²C	–	–	–	✓	✓	$1.73	BOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MQL), VTLA (TL)
	dsPIC33FJ32MC102*	R	21	dsPIC	32	2	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	8 ch	–	3	–	2	3	6	-	5	1 UART,1 SPI, 1 I²C	–	–	–	✓	✓	$1.73	BOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP32GP502*	R	21	dsPIC	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.10	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP32MC502*	R	21	dsPIC	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.10	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP64MC202*	R	21	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.45	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP64GP502*	R	21	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.66	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP64MC502*	R	21	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.66	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP128MC202*	R	21	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.66	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP128GP502*	R	21	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.87	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP128MC502*	R	21	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.87	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP256MC202*	R	21	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$3.14	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP256GP502*	R	21	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.35	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP256MC502*	R	21	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.35	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33FJ64GP802	R	21	dsPIC	64	16	AN1095[1]	8	3V-3.6V	40	7.37 MHz, 32 kHz	✓	13 ch (12-bit)	4x 16-bit	1	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.42	BOR, POR, WDT	SPDIP (SP), SOIC (SO), QFN-S (MM)
	dsPIC33EP512MC202*	R	21	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$3.50	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP512GP502*	R	21	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.71	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33EP512MC502*	R	21	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	6 ch	–	1 + 2†	2	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.71	PBOR, POR, WDT	SPDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33FJ128GP802	R	21	dsPIC	64	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 Kkz	✓	13 ch (12-bit)	4x 16-bit	1	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.72	BOR, POR, WDT	SPDIP (SP), SOIC (SO), QFN-S (MM)
36-Pin	dsPIC33EP32MC203*	R	25	dsPIC	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	–	1 + 2†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$1.96	PBOR, POR, WDT	VTLA (TL)
	dsPIC33EP32GP503*	R	25	dsPIC	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	–	1 + 2†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.17	PBOR, POR, WDT	VTLA (TL)
	dsPIC33EP32MC503*	R	25	dsPIC	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	–	1 + 2†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.17	PBOR, POR, WDT	VTLA (TL)
	dsPIC33EP64MC203*	R	25	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	–	1 + 2†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.52	PBOR, POR, WDT	VTLA (TL)
	dsPIC33EP64GP503*	R	25	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	–	1 + 2†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.73	PBOR, POR, WDT	VTLA (TL)
	dsPIC33EP64MC503*	R	25	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	–	1 + 2†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.73	PBOR, POR, WDT	VTLA (TL)
	dsPIC33EP256MC203*	R	25	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	8 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	–	–	–	✓	✓	$3.21	PBOR, POR, WDT	VTLA (TL)
44-Pin	dsPIC33FJ32GP104*	R	35	dsPIC	32	2	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	14 ch	–	3	–	2	3	–	–	5	1 UART, 1 SPI, 1 I²C	–	–	–	✓	✓	$2.02	BOR, POR, WDT	TQFP (PT), TLA, QFN (ML)
	dsPIC33FJ32MC104*	R	35	dsPIC	32	2	AN1095[1]	–	3V–3.6V	16	7.37 MHz, 32 kHz	✓	14 ch	–	3	–	2	3	6	–	5	1 UART,1 SPI, 1 I²C	–	–	–	✓	✓	$2.02	BOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP32MC204*	R	35	dsPIC	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.03	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP32GP504*	R	35	dsPIC	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.24	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP32MC504*	R	35	dsPIC®	32	4	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.24	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP64MC204*	R	35	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.59	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP64GP504*	R	35	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.80	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP64MC504*	R	35	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.80	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP128MC204*	R	35	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.80	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)

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

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

dsPIC33 DSC GENERAL PURPOSE AND MOTOR CONTROL FAMILY

	Product	Released (R) Not Released (NR)	I/O Pins	Core	Memory				Voltage Range	Operating Speed		Analog Sensing & Measurement				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	Charge Time Measurement Unit	ADC 10/12-bit 1100/500 ksps	DAC	Comparators	Op Amps						Digital Communication	CAN	FS USB OTG					System Mgmt. Features	
44-Pin (Cont.)	dsPIC33EP128GP504*	R	35	dsPIC®	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C™	1	–	–	✓	✓	$3.01	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP128MC504*	R	35	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.01	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP256MC204*	R	35	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$3.28	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP256GP504*	R	35	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.49	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP256MC504*	R	35	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.49	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33EP512MC204*	R	35	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$3.64	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33FJ64GP804	R	35	dsPIC	128	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	✓	13 ch (12-bit)	6x 16-bit	2	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.65	BOR, POR, WDT	QFN (ML), TQFP (PT)
	dsPIC33EP512GP504*	R	35	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.85	PBOR, POR, WDT	TQFP (PT), QFN (ML)
	dsPIC33EP512MC504*	R	35	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	9 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.85	PBOR, POR, WDT	TQFP (PT), VTLA (TL), QFN (ML)
	dsPIC33FJ128GP804	R	35	dsPIC	128	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	✓	13 ch (12-bit)	6x 16-bit	2	2	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.96	BOR, POR, WDT	QFN (ML), TQFP (PT)
64-Pin	dsPIC33EP64MC206*	R	53	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.73	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP64GP506*	R	53	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.94	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP64MC506*	R	53	dsPIC	64	8	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$2.94	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP128MC206*	R	53	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$2.94	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP128GP506*	R	53	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.15	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP128MC506*	R	53	dsPIC	128	16	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.15	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP256MC206*	R	53	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$3.42	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP256GP506*	R	53	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.63	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP256MC506*	R	53	dsPIC	256	32	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.63	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP512MC206*	R	53	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	0	–	–	✓	✓	$3.78	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP512GP506*	R	53	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	–	–	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.99	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP512MC506*	R	53	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	✓	16 ch	–	1 + 3†	3	4	4	6	1	5	2 UART, 2 SPI, 1 I²C	1	–	–	✓	✓	$3.99	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP512MC806*	R	53	dsPIC	536	52	AN1095[1]	15	3V–3.6V	70	7.37 MHz, 32 kHz	–	24 ch, 2 ADC	–	3	–	16	16	8	2	9	4 UART, 2 SPI, 2 I²C	2	Y	Y	✓	✓	$5.22	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP512GP806*	R	53	dsPIC	536	52	AN1095[1]	15	3V–3.6V	70	7.37 MHz, 32 kHz	–	24 ch, 2 ADC	–	3	–	16	16	–	–	9	4 UART, 2 SPI, 2 I²C	2	–	Y	✓	✓	$5.60	PBOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33EP256MU806*	R	53	dsPIC	512	48	AN1095[1]	4	3V–3.6V	70	7.37 MHz, 32 kHz	–	24 ch, 2 ADC	–	3	–	16	16	8	2	9	4 UART, 2 SPI, 2 I²C	2	–	Y	✓	✓	$5.60	PBOR, POR, WDT	TQFP (PT), QFN (MR)
100-Pin	dsPIC33FJ64GP310A*	R	85	dsPIC	64	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	–	32 ch	–	–	–	8	8	–	–	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$3.99	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33FJ64MC510A*	R	85	dsPIC	64	8	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)
	dsPIC33FJ128GP310A*	R	85	dsPIC	128	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	–	32 ch	–	–	–	8	8	–	–	9	2 UART, 2 SPI, 2 I²C	–	–	–	–	–	$4.25	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33FJ128MC510A*	R	85	dsPIC	128	8	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)
	dsPIC33FJ64GP710A*	R	85	dsPIC	64	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	–	32 ch, 2 ADC	–	–	–	8	8	–	–	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	–	$4.61	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33FJ64MC710A*	R	85	dsPIC	64	16	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)
	dsPIC33FJ256GP510A*	R	85	dsPIC	256	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	-	32 ch	–	–	–	8	8	–	–	9	2 UART, 2 SPI, 2 I²C	1	–	–	–	–	$4.66	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33FJ128GP710A*	R	85	dsPIC	128	16	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	-	32 ch, 2 ADC	–	–	–	8	8	–	–	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	–	$4.86	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33FJ256MC510A*	R	85	dsPIC	256	16	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	16	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)
	dsPIC33FJ256GP710A*	R	85	dsPIC	256	30	AN1095[1]	8	3V–3.6V	40	7.37 MHz, 32 kHz	-	32 ch, 2 ADC	–	–	–	8	8	–	–	9	2 UART, 2 SPI, 2 I²C	2	–	–	–	–	$5.32	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33FJ256MC710A*	R	85	dsPIC	256	30	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)
	dsPIC33EP256MU810*	R	83	dsPIC	280	28	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 ADC	–	3	–	16	16	12	2	9	2 UART, 2 SPI, 2 I²C	2	✓	✓	✓	✓	$5.70	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33EP512MU810*	R	83	dsPIC	536	52	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 ADC	–	3	–	16	16	12	2	9	2 UART, 2 SPI, 2 I²C	2	✓	✓	✓	✓	$6.37	PBOR, POR, WDT	TQFP (PT, PF)
144-Pin	dsPIC33EP256MU814*	R	122	dsPIC	280	28	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 ADC	–	3	–	16	16	12	2	9	2 UART, 2 SPI, 2 I²C	2	✓	✓	✓	✓	$6.31	PBOR, POR, WDT	TQFP (PT, PF)
	dsPIC33EP512MU814*	R	122	dsPIC	536	52	AN1095[1]	15	3V–3.6V	60	7.37 MHz, 32 kHz	-	32 ch, 2 ADC	–	3	–	16	16	12	2	9	2 UART, 2 SPI, 2 I²C	2	✓	✓	✓	✓	$6.99	PBOR, POR, WDT	TQFP (PT, PF)

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

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

dsPIC33 DSC 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 ksps (‡ 4000 ksps)	DAC	Comparators						Digital Communication	CAN					System Mgmt. Features	
18-Pin	dsPIC33FJ06GS001	R	13	dsPIC®	6	256	AN1095[1]	–	3V–3.6V	40	7.37 MHz, 32 kHz	6 ch	2 × 10-bit	2	–	–	4	–	2	1 UART, 1 SPI, 1 I²C™	–	–	–	✓	$1.61	BOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS)
	dsPIC33FJ06GS101A	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	–	–	–	✓	$1.75	BOR, POR, WDT	PDIP (P), SOIC (SO), SSOP (SS)
28-Pin	dsPIC33FJ06GS102A	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	–	–	–	✓	$1.95	BOR, POR, WDT	SDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33FJ06GS202A	R	21	dsPIC	6	1024	AN1095[1]	–	3V–3.6V	40	7.37 MHz, 32 kHz	6 ch	2 × 10-bit	2	1	1	4	–	2	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.06	BOR, POR, WDT	SDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33FJ09GS302	R	21	dsPIC	9	1024	AN1095[1]	–	3V–3.6V	40	7.37 MHz, 32 kHz	8 ch	2 × 10-bit	2	1	1	6	–	2	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.17	BOR, POR, WDT	SDIP (SP), SOIC (SO), SSOP (SS), QFN (MM)
	dsPIC33FJ16GS402*	R	21	dsPIC	16	2048	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	8 ch	–	–	2	2	6	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.52	BOR, POR, WDT	SPDIP (SP), SOIC (SO), QFN (MM)
	dsPIC33FJ16GS502*	R	21	dsPIC	16	2048	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	8 ch, 2 ADC†	4 × 10-bit	4	2	2	8	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$3.04	BOR, POR, WDT	SPDIP (SP), SOIC (SO), QFN (MM)
44-Pin	dsPIC33FJ16GS404*	R	35	dsPIC	16	2048	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	8 ch	–	–	2	2	6	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$2.77	BOR, POR, WDT	TQFP (PT), QFN (ML)
	dsPIC33FJ16GS504*	R	35	dsPIC	16	2048	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	12 ch, 2 ADC†	4 × 10-bit	4	2	2	8	–	3	1 UART, 1 SPI, 1 I²C	–	–	–	✓	$3.42	BOR, POR, WDT	TQFP (PT), QFN (ML)
64-Pin	dsPIC33FJ32GS406	R	58	dsPIC	32	4096	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	16 ch	–	–	4	4	12	1	5	2 UART, 2 SPI, 2 I²C	–	–	–	–	$3.07	BOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33FJ64GS406	R	58	dsPIC	64	8192	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	16 ch	–	–	4	4	12	1	5	2 UART, 2 SPI, 2 I²C	–	–	–	–	$3.35	BOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33FJ32GS606	R	58	dsPIC	32	4096	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	16 ch, 2 ADC†	4 × 10-bit	4	4	4	12	2	5	2 UART, 2 SPI, 2 I²C	–	–	–	–	$3.36	BOR, POR, WDT	TQFP (PT), QFN (MR)
	dsPIC33FJ64GS606	R	58	dsPIC	64	9216	AN1095[1]	4	3V–3.6V	50	7.37 MHz, 32 kHz	16 ch, 2 ADC†	4 × 10-bit	4	4	4	12	2	5	2 UART, 2 SPI, 2 I²C	1	–	–	–	$3.81	BOR, POR, WDT	TQFP (PT), QFN (MR)
80-Pin	dsPIC33FJ32GS608	R	74	dsPIC	32	4096	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	18 ch, 2 ADC†	4 × 10-bit	4	4	4	16	2	5	2 UART, 2 SPI, 2 I²C	–	–	–	–	$3.85	BOR, POR, WDT	TQFP (PT)
	dsPIC33FJ64GS608	R	74	dsPIC	64	9216	AN1095[1]	4	3V–3.6V	50	7.37 MHz, 32 kHz	18 ch, 2 ADC†	4 × 10-bit	4	4	4	16	2	5	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.34	BOR, POR, WDT	TQFP (PT)
100-Pin	dsPIC33FJ32GS610	R	85	dsPIC	32	4096	AN1095[1]	–	3V–3.6V	50	7.37 MHz, 32 kHz	24 ch, 2 ADC†	4 × 10-bit	4	4	4	18	2	5	2 UART, 2 SPI, 2 I²C	–	–	–	–	$4.41	BOR, POR, WDT	TQFP (PF, PT)
	dsPIC33FJ64GS610	R	85	dsPIC	64	9216	AN1095[1]	4	3V–3.6V	50	7.37 MHz, 32 kHz	24 ch, 2 ADC†	4 × 10-bit	4	4	4	18	2	5	2 UART, 2 SPI, 2 I²C	1	–	–	–	$4.89	BOR, POR, WDT	TQFP (PF, PT)

* Parts available with High Temperature Options (150°C).
† 4 Msps devices with 2 ADCs
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)	I/O Pins	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	Charge Time Measurement Unit	Analog: ADC 10-bit 1,000 ksps	Analog: Comparators	IC/OC/PWM	Timers 16/32-bit	Communication: SPI/I²S	Communication: I²C™	Communication: UARTs	Communication: FS USB	Communication: Ethernet	Communication: CAN	PMP	RTCC	Peripheral Pin Select (PPS)	5 ku Pricing†	Monitors: System Mgmt. Features	Packages (Designator)
28-Pin	PIC32MX110F016B	R	21	PIC32	16 + 3	4	AN1095	4/0	2.3V–3.6V	40	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$1.51	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
	PIC32MX210F016B	R	21	PIC32	16 + 3	4	AN1095	4/2	2.3V–3.6V	40	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	Device	–	–	✓	✓	✓	$1.62	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
	PIC32MX120F032B	R	21	PIC32	32 + 3	8	AN1095	4/0	2.3V–3.6V	50	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$1.71	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
	PIC32MX220F032B	R	21	PIC32	32 + 3	8	AN1095	4/2	2.3V–3.6V	50	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	Device	–	–	✓	✓	✓	$1.82	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
	PIC32MX130F064B	R	21	PIC32	64 + 3	16	AN1095	4/0	2.3V–3.6V	40	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$2.03	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
	PIC32MX150F128B	R	21	PIC32	128 + 3	32	AN1095	4/0	2.3V–3.6V	50	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$2.31	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
	PIC32MX230F064B	R	21	PIC32	64 + 3	16	AN1095	4/2	2.3V–3.6V	40	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	OTG	–	–	✓	✓	✓	$2.31	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
	PIC32MX250F128B	R	21	PIC32	128 + 3	32	AN1095	4/2	2.3V–3.6V	50	8 MHz, 32 kHz	✓	10 ch	3	5/5/5	5/2	2/2	2	2	OTG	–	–	✓	✓	✓	$2.59	POR, BOR, LVD, WDT	SPDIP (SP), SOIC (SO), SSOC (SS), QFN (ML)
36-Pin	PIC32MX110F016C	R	25	PIC32	16 + 3	4	AN1095	4/0	2.3V–3.6V	40	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$1.65	POR, BOR, LVD, WDT	VTLA (TL)
	PIC32MX210F016C	R	25	PIC32	16 + 3	4	AN1095	4/2	2.3V–3.6V	40	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	Device	–	–	✓	✓	✓	$1.76	POR, BOR, LVD, WDT	VTLA (TL)
	PIC32MX120F032C	R	25	PIC32	32 + 3	8	AN1095	4/0	2.3V–3.6V	50	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$1.85	POR, BOR, LVD, WDT	VTLA (TL)
	PIC32MX220F032C	R	25	PIC32	32 + 3	8	AN1095	4/2	2.3V–3.6V	50	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	Device	–	–	✓	✓	✓	$1.96	POR, BOR, LVD, WDT	VTLA (TL)
	PIC32MX130F064C	R	25	PIC32	64 + 3	16	AN1095	4/0	2.3V–3.6V	40	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$2.17	POR, BOR, LVD, WDT	VTLA (TL)
	PIC32MX150F128C	R	25	PIC32	128 + 3	32	AN1095	4/0	2.3V–3.6V	50	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$2.45	POR, BOR, LVD, WDT	VTLA (TL)
	PIC32MX230F064C	R	25	PIC32	64 + 3	16	AN1095	4/2	2.3V–3.6V	40	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	OTG	–	–	✓	✓	✓	$2.45	POR, BOR, LVD, WDT	VTLA (TL)
	PIC32MX250F128C	R	25	PIC32	128 + 3	32	AN1095	4/2	2.3V–3.6V	50	8 MHz, 32 kHz	✓	12 ch	3	5/5/5	5/2	2/2	2	2	OTG	–	–	✓	✓	✓	$2.73	POR, BOR, LVD, WDT	VTLA (TL)
44-Pin	PIC32MX110F016D	R	34	PIC32	16 + 3	4	AN1095	4/0	2.3V–3.6V	40	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$1.75	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
	PIC32MX210F016D	R	34	PIC32	16 + 3	4	AN1095	4/2	2.3V–3.6V	40	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	Device	–	–	✓	✓	✓	$1.85	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
	PIC32MX120F032D	R	34	PIC32	32 + 3	8	AN1095	4/0	2.3V–3.6V	50	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$1.95	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
	PIC32MX220F032D	R	34	PIC32	32 + 3	8	AN1095	4/2	2.3V–3.6V	50	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	Device	–	–	✓	✓	✓	$2.04	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
	PIC32MX130F064D	R	34	PIC32	64 + 3	16	AN1095	4/0	2.3V–3.6V	40	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$2.24	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
	PIC32MX150F128D	R	34	PIC32	128 + 3	32	AN1095	4/0	2.3V–3.6V	50	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	–	–	–	✓	✓	✓	$2.52	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
	PIC32MX230F064D	R	34	PIC32	64 + 3	16	AN1095	4/2	2.3V–3.6V	40	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	OTG	–	–	✓	✓	✓	$2.52	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
	PIC32MX250F128D	R	34	PIC32	128 + 3	32	AN1095	4/2	2.3V–3.6V	50	8 MHz, 32 kHz	✓	13 ch	3	5/5/5	5/2	2/2	2	2	OTG	–	–	✓	✓	✓	$2.80	POR, BOR, LVD, WDT	TQFP (PT), QFN (ML), VTLA (TL)
64-Pin	PIC32MX370F512H	NR	51	PIC32	512 + 12	128	AN1095(1)	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	–	–	–	✓	✓	✓	call for pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX470F512H	NR	51	PIC32	512 + 12	128	AN1095(1)	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	OTG	–	–	✓	✓	✓	call for pricing	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX330F064H	R	53	PIC32	64 + 12	16	AN1095(1)	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	–	–	–	✓	✓	✓	$2.62	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX430F064H	R	51	PIC32	64 + 12	16	AN1095(1)	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	OTG	–	–	✓	✓	✓	$3.04	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX320F032H	R	51	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	2/0	2	2	–	–	–	✓	✓	–	$3.09	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX350F128H	R	53	PIC32	128 + 12	32	AN1095(1)	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	–	–	–	✓	✓	✓	$3.30	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX320F064H	R	51	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	2/0	2	2	–	–	–	✓	✓	–	$3.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX420F032H	R	51	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	2/0	2	2	OTG	–	–	✓	✓	–	$3.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX450F128H	R	51	PIC32	128 + 12	32	AN1095(1)	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	OTG	–	–	✓	✓	✓	$3.44	POR, BOR, LVD, WDT	QFN (MR), TQFP (PT,PF)
	PIC32MX350F256H	R	53	PIC32	256 + 12	64	AN1095(1)	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	–	–	–	✓	✓	✓	$3.51	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX450F256H	R	51	PIC32	256 + 12	64	AN1095(1)	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	4	OTG	–	–	✓	✓	✓	$3.65	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX320F128H	R	51	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	2/0	2	2	–	–	–	✓	✓	–	$3.75	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX534F064H	R	51	PIC32	64 + 12	16	AN1095(1)	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	–	1	✓	✓	–	$3.89	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX340F128H	R	51	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	2/0	2	2	–	–	–	✓	✓	–	$3.96	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX564F064H	R	51	PIC32	64 + 12	32	AN1095(1)	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	–	1	✓	✓	–	$4.10	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX440F128H	R	51	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	2/0	2	2	OTG	–	–	✓	✓	–	$4.23	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX340F256H	R	51	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	2/0	2	2	–	–	–	✓	✓	–	$4.31	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX564F128H	R	51	PIC32	128 + 12	32	AN1095(1)	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	–	1	✓	✓	–	$4.34	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)

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

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

32-BIT PIC32 MICROCONTROLLERS

	Product	Released (R) Not Released (NR)	I/O Pins	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	Charge Time Measurement Unit	Analog: ADC 10-bit 1,000 ksps	Analog: Comparators	IC/OC/PWM	Timers 16/32-bit	Communication: SPI/I²S	Communication: I²C™	Communication: UARTs	Communication: FS USB	Communication: Ethernet	Communication: CAN	PMP	RTCC	Peripheral Pin Select (PPS)	5 ku Pricing[1]	Monitors: System Mgmt. Features	Packages (Designator)
64-Pin (Cont.)	PIC32MX664F064H	R	51	PIC32	64 + 12	32	AN1095[1]	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	–	✓	✓	–	$4.34	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX440F256H	R	51	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	2/0	2	2	OTG	–	–	✓	✓	–	$4.58	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX664F128H	R	51	PIC32	128 + 12	32	AN1095[1]	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	–	✓	✓	–	$4.58	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX764F128H	R	51	PIC32	128 + 12	32	AN1095[1]	4/6	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	3/0	4	6	OTG	10/100	1	✓	✓	–	$4.69	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX340F512H	R	51	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	2/0	2	2	–	–	–	✓	✓	–	$4.77	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX575F256H	R	51	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	3/0	4	6	OTG	–	1	✓	✓	–	$4.96	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX440F512H	R	51	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	2/0	2	2	OTG	–	–	✓	✓	–	$5.04	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX675F256H	R	51	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	3/0	4	6	OTG	10/100	–	✓	✓	–	$5.19	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX575F512H	R	51	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	3/0	4	6	OTG	–	1	✓	✓	–	$5.42	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX775F256H	R	51	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	3/0	4	6	OTG	10/100	2	✓	✓	–	$5.42	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX675F512H	R	51	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	3/0	4	6	OTG	10/100	–	✓	✓	–	$5.66	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX775F512H	R	51	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	3/0	4	6	OTG	10/100	2	✓	✓	–	$5.88	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX695F512H	R	51	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	3/0	4	6	OTG	10/100	–	✓	✓	–	$6.13	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
	PIC32MX795F512H	R	51	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	3/0	4	6	OTG	10/100	2	✓	✓	–	$6.36	POR, BOR, LVD, WDT	TQFP (PT), QFN (MR)
100-Pin	PIC32MX370F512L	NR	83	PIC32	512 + 12	128	AN1095[1]	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	5	–	–	–	✓	✓	✓	call for pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX470F512L	NR	83	PIC32	512 + 12	128	AN1095[1]	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	5	OTG	–	–	✓	✓	✓	call for pricing	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX330F064L	R	85	PIC32	64 + 12	16	AN1095[1]	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28	2	5/5/5	5/2	2/2	2	5	–	–	–	✓	✓	–	$3.04	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX430F064L	R	83	PIC32	64 + 12	16	AN1095[1]	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28	2	5/5/5	5/2	2/2	2	5	OTG	–	–	✓	✓	–	$3.18	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX350F128L	R	85	PIC32	128 + 12	32	AN1095[1]	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	5	–	–	–	✓	✓	✓	$3.72	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX450F128L	R	83	PIC32	128 + 12	32	AN1095[1]	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	5	OTG	–	–	✓	✓	✓	$3.86	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX350F256L	R	85	PIC32	256 + 12	64	AN1095[1]	4/0	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	5	–	–	–	✓	✓	✓	$3.93	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX450F256L	R	83	PIC32	256 + 12	64	AN1095[1]	4/2	2.3V–3.6V	80	8 MHz, 32 kHz	✓	28 ch	2	5/5/5	5/2	2/2	2	5	OTG	–	–	✓	✓	✓	$4.07	POR, BOR, LVD, WDT	TQFP (PT, PF), VTLA (TL)
	PIC32MX534F064L	R	85	PIC32	64 + 12	16	AN1095[1]	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	–	1	✓	✓	–	$4.37	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX320F128L	R	85	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	2/0	2	2	–	–	–	✓	✓	–	$4.44	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
	PIC32MX340F128L	R	85	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	2/0	2	2	–	–	–	✓	✓	–	$4.44	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
	PIC32MX564F064L	R	85	PIC32	64 + 12	32	AN1095[1]	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	–	1	✓	✓	–	$4.58	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX440F128L	R	85	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	2/0	2	2	OTG	–	–	✓	✓	–	$4.70	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
	PIC32MX360F256L	R	85	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	2/0	2	2	–	–	–	✓	✓	–	$4.79	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
	PIC32MX564F128L	R	85	PIC32	128 + 12	32	AN1095[1]	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	–	1	✓	✓	–	$4.82	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX664F064L	R	85	PIC32	64 + 12	32	AN1095[1]	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	–	✓	✓	–	$4.82	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX460F256L	R	85	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	2/0	2	2	OTG	–	–	✓	✓	–	$5.05	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
	PIC32MX664F128L	R	85	PIC32	128 + 12	32	AN1095[1]	4/4	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	–	✓	✓	–	$5.05	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX764F128L	R	85	PIC32	128 + 12	32	AN1095[1]	4/6	2.3V–3.6V	80	8 MHz, 32 kHz	–	16 ch	2	5/5/5	5/1	4/0	5	6	OTG	10/100	1	✓	✓	–	$5.17	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX360F512L	R	85	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	2/0	2	2	–	–	–	✓	✓	–	$5.25	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
	PIC32MX575F256L	R	85	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	4/0	5	6	OTG	–	1	✓	✓	–	$5.43	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX460F512L	R	85	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	2/0	2	2	OTG	–	–	✓	✓	–	$5.52	POR, BOR, LVD, WDT	TQFP (PT), XBGA (BG)
	PIC32MX675F256L	R	85	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	4/0	5	6	OTG	10/100	–	✓	✓	–	$5.67	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX575F512L	R	85	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	4/0	5	6	OTG	–	1	✓	✓	–	$5.89	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX775F256L	R	85	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	4/0	5	6	OTG	10/100	2	✓	✓	–	$5.89	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX675F512L	R	85	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	4/0	5	6	OTG	10/100	–	✓	✓	–	$6.13	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX775F512L	R	85	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	4/0	5	6	OTG	10/100	2	✓	✓	–	$6.36	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX695F512L	R	85	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	4/0	5	6	OTG	10/100	–	✓	✓	–	$6.61	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG)
	PIC32MX795F512L	R	85	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	4/0	5	6	OTG	10/100	2	✓	✓	–	$6.83	POR, BOR, LVD, WDT	TQFP (PT, PF), XBGA (BG), VTLA (TL)

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

THERMAL MANAGEMENT: Temperature Sensors

Product	Description	# Temps. Monitored	Typical/Max Accuracy (°C)	Temp. Range (°C)	Vcc Range (V)	Typical Supply Current (µA)	Alerts	Resistance Error Correction	Beta Compensation	Packages
MCP9501/2/3/4	Temperature Switch replacing MAX6501/2/3/4	1	1.0/3.0	–40 to +125	+2.7 to +5.5	25	–	–	–	5-pin SOT-23
MCP9509/10	Resistor-Programmable Temperature Switch	1	0.5/3.5	–40 to +125	+2.7 to +5.5	30	–	–	–	5-pin SOT-23
MCP9800/1/2/3	SMBus/I²C™ Temperature Sensor	1	0.5/1.0	–55 to +125	+2.7 to +5.5	200	1	–	–	5-pin SOT-23
MCP9804	SMBus/I²C Temperature Sensor	1	0.25/1.0	–40 to +125	+2.7 to +5.5	200	1	–	–	8-pin DFN, 8-pin MSOP
MCP9808	SMBus/I²C Temperature Sensor	1	0.25/0.5	–40 to +125	+2.7 to +5.5	200	1	–	–	8-pin DFN, 8-pin MSOP
MCP98243	SMBus/I²C Temperature Sensor with EEPROM	1	0.5/3.0	–40 to +125	+3.0 to +3.6	200	1	–	–	8-pin DFN, 8-pin TDFN, 8-pin TSSOP, 8-pin UDFN
MCP9843	SMBus/I²C JEDEC Temperature Sensor	1	0.5/3.0	–40 to +125	+3.0 to +3.6	200	1	–	–	8-pin DFN, 8-pin TDFN, 8-pin TSSOP
TCN75A	SMBus/I²C Temperature Sensor	1	0.5/3.0	–40 to +125	+2.7 to +5.5	200	1	–	–	8-pin MSOP, 8-pin SOIC 150mil
MCP9700/01	Linear Active Thermistor IC	1	1.0/4.0	–40 to +150	+2.3 to +5.5	6	–	–	–	3-pin SOT-23, 3-pin TO-92, 5-pin SC-70
MCP9700/01A	Linear Active Thermistor IC	1	1.0/2.0	–40 to +150	+2.3 to +5.5	6	–	–	–	3-pin SOT-23, 3-pin TO-92, 5-pin SC-70
EMC1033	SMBus/I²C Multi Temperature Sensor	3	1.0/3.0	–40 to +125	+3.0 to +3.6	50	2	✓	–	8-pin MSOP
EMC1043	SMBus/I²C Multi Temperature Sensor	3	0.5/1.0	–40 to +125	+3.0 to +3.6	105	–	✓	Configurable	8-pin MSOP
EMC1046	SMBus/I²C Multi Temp Sensor with Hottest of Zones	6	0.25/1.0	–40 to +125	+3.0 to +3.6	395	–	✓	Automatic	10-pin MSOP
EMC1047	SMBus/I²C Multi Temp Sensor with Hottest of Zones	7	0.25/1.0	–40 to +125	+3.0 to +3.6	395	–	✓	Automatic	10-pin MSOP
EMC1182/3/4	1.8V SMBus/I²C Multi Temp Sensor	2/3/4	0.25/1.0	–40 to +125	+3.0 to +3.6	–	2	✓	Automatic	8-pin TDFN, 8-pin DFN, 10-pin DFN
EMC1186/7/8	1.8V SMBus/I²C Multi Temp Sensor with Shutdown	2/3/4	0.25/1.0	–40 to +125	+3.0 to +3.6	–	1	✓	Automatic	8-pin TDFN, 10-pin DFN
EMC1412/3/4	SMBus/I²C Multi Temperature Sensor	2/3/4	0.25/1.0	–40 to +125	+3.0 to +3.6	430	2	✓	Automatic	8-pin TDFN, 8-pin MSOP, 10-pin DFN, 10-pin MSOP
EMC1422/3/4	SMBus/I²C Multi Temp Sensor with Shutdown	2/3/4	0.25/1.0	–40 to +125	+3.0 to +3.6	430	1	✓	Automatic	8-pin MSOP, 10-pin MSOP
EMC1428	SMBus/I²C Multi Temp Sensor with Hottest of Zones	8	0.25/1.0	–40 to +125	+3.0 to +3.6	450	1	✓	Automatic	16-pin QFN

THERMAL MANAGEMENT: Fan Controllers

Product	Description	# Fan Drivers	PWM/Linear Control	# External Temp. Inputs	Typical Accuracy	Max. Accuracy	Vcc Range (V)	Interface	Alerts	Fan Speed Lookup Table	Packages
EMC2101	Programmable Fan Controller with Thermal Mgt	1	PWM	2	0.5	1.0	+3.0 to +3.6	SMBus/I²C™	✓	✓	8-pin MSOP, 8-pin SOIC
EMC2300	Programmable Multi-Fan Controller with Thermal Mgt	3	PWM	3	0.25	3.0	+3.0 to +3.6	SMBus/I²C	✓	✓	16-pin SSOP
EMC2112	Programmable Fan Controller with Thermal Mgt	1	Linear	3	0.25	1.0	+3.3 and +5	SMBus/I²C	✓	✓	20-pin QFN
EMC2103-1	Programmable Fan Controller with Thermal Mgt	1	PWM	1	0.5	1.0	+3.0 to +3.6	SMBus/I²C	✓	✓	12-pin QFN
EMC2103-4	Programmable Fan Controller with EEPROM Load	1	PWM	3	0.5	1.0	+3.0 to +3.6	SMBus/I²C	✓	✓	16-pin QFN
EMC2104	Programmable Multi-Fan Controller with Thermal Mgt	2	PWM	4	0.25	1.0	+3.0 to +3.6	SMBus/I²C	✓	✓	20-pin QFN
EMC2105	Programmable Fan Controller with Thermal Mgt	1	Linear	4	0.25	1.0	+3.3 and +5	SMBus/I²C	✓	✓	20-pin QFN
EMC2113	Programmable Fan Controller with Thermal Mgt	1	PWM	3	0.5	1.0	+3.0 to +3.6	SMBus/I²C	✓	✓	16-pin QFN
EMC2301/2/3/5	Programmable Fan Controller	1 /2/3/5	PWM	–	–	–	+3.0 to +3.6	SMBus/I²C	✓	–	8-pin MSOP, 10-pin MSOP, 12-pin QFN, 16-pin QFN

POWER MANAGEMENT: Switching Regulators/PWM Controllers

Product	Input Voltage Range (V)	Output Voltage (V)	Operating Temp. Range (°C)	Control Scheme	Switching Frequency (kHz)	Typical Active Current (µA)	Output Current (mA)	Features	Packages
TC1303/04/13	2.7 to 5.5	DC/DC: 0.8 to 4.5 LDO: 1.5 to 3.3	–40 to +85	PFM/PWM	2000	65/600	DC/DC: 500 mA LDO: 300 mA	Synchronous Buck Regulator, LDO w/Power Good with PFM/PWM auto-switching, Power Good output or Power Sequencing	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
MCP19035	4.5 to 30	90% of VIN	–40 to +125	PWM	300/600	6000	Ext	Voltage mode PWM synchronous buck controller. Integrates LDO, error amplifer, current and voltage sense, UVLO/OVLO/MOSFET Dead Time adj, and MOSFET Drivers	DFN
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, –0.65V start-up voltage, Soft-start, True load disconnect or input-to-output bypass option	SOT-23, DFN
MCP16251/2	0.82 to 5.5	1.8 to 5.5	–40 to +85	PWM/PFM	500	4	250	True load disconnect, Shutdown, Input to output bybass	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
MCP16301	4.0 to 30	2.0 to 15	–40 to +85	PWM	500	2000	600	Integrated N-channel, UVLO, Soft-start, Over-temperature protection	SOT-23
MCP16321	6 to 24	0.9 to 5	–40 to +125	PWM/PFM	1000	2300	1000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power Good pin	QFN
MCP16322	6 to 24	0.9 to 5	–40 to +125	PWM/PFM	1000	2300	2000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power Good pin	QFN
MCP16323	6 to 18	0.9 to 5	–40 to +125	PWM/PFM	1000	2300	3000	Integrated switches, Internal compensation, Peak current mode control, Soft-start, UVLO, Power Good pin	QFN

POWER MANAGEMENT: Hybrid PWM Controllers

Product	Input Voltage Range (V)	Output Voltage (V)	Operating Temp. Range (°C)	Topologies Supported	Integrated MCU	Program Memory Size (kWords)	RAM (bytes)	Features	Packages
MCP19110	4.5 to 32	90% of VIN	–40 to +125	Buck	✓	4	256	Synchronous buck controller, Integrated MCU, LDO, and synchronous MOSFET driver. User configurable/programmable including MOSFET dead time, Switching frequency, Analog loop compensation, and protection thresholds	4 x 4 QFN
MCP19111	4.5 to 32	90% of VIN	–40 to +125	Buck	✓	4	256	Synchronous buck controller, Integrated MCU, LDO, and synchronous MOSFET driver, User configurable/programmable including MOSFET dead time, Switching frequency, Analog loop compensation, and protection thresholds	5 x 5 QFN

POWER MANAGEMENT: Power MOSFETs

Product	V_{DS} (V)	Configuration	Polarity	R_{DS} (on) @ 4.5V (mΩ, Max.)	R_{DS} (on) @ 10V (mΩ, Max.)	Q_G @ 4.5V (nC, Max.)	I_D (A, Max. @ 25°C, Tcase)	V_{GS} (th) (V, Min.)	Q_{GD} (nC, Typ.)	R_G (Ω Typ.)	Package
MCP87018	25	Single	N-Channel	2.2	1.9	37	100	1	13	1.5	5 x 6 PDFN
MCP87022	25	Single	N-Channel	2.6	2.3	29	100	1	9	1.3	5 x 6 PDFN
MCP87030	25	Single	N-Channel	4	3.5	22	100	1	6.7	1.2	5 x 6 PDFN
MCP87050	25	Single	N-Channel	6	5	15	100	1	4.7	1.1	5 x 6 PDFN
MCP87055	25	Single	N-Channel	7	6	14	60	1	4.5	2.1	3.3 x 3.3 PDFN
MCP87090	25	Single	N-Channel	12	10.5	10	64	1.1	2.8	1.8	5 x 6 PDFN, 3.3 x 3.3 PDFN
MCP87130	25	Single	N-Channel	16.5	13.5	8	54	1.1	2.6	1.7	5 x 6 PDFN, 3.3 x 3.3 PDFN

POWER MANAGEMENT: Linear Regulators

Product	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
TC1301A/B	6	1.5 to 3.3	LD01: 300 LD02: 150	103/114	LD01: 104 LD02: 150	±0.5	Dual LDO plus Reset output, Shutdown, Reference bypass, Voltage detect	MSOP, DFN
TC1302AB	6	1.5 to 3.3	LD01: 300 LD02: 150	103/114	LD01: 104 LD02: 150	±0.5	Dual LDO, Shutdown, Reference bypass, Voltage detect	MSOP, DFN
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
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 /3A	13.2/16/16	1.2 to 5.0	250	2	330/625/625	±0.4	Very low I_Q	DFN, TO-92, SOT-23A, SOT-89, SOT-223
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
MCP1754/S	16	1.8 to 5.5	150	56	300	±0.4	Power Good, Shutdown	DFN, SOT-23A, SOT-89, SOT-223
MCP1755/S	16	1.8 to 5.5	300	68	300	±2.0	Shutdown, High PSRR	DFN, SOT-23, SOT-223
MCP1790/1	30	3.0, 3.3, 5.0	70	70	500	±0.2	Load dump, Shutdown, Power Good	SOT-223, DDPAK
MCP1804	28	1.8 to 18	150	50	300	±0.5	Shutdown, High PSRR	SOT-23, 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	SOT-223, TO-220, DDPAK

POWER MANAGEMENT: Charge Pump DC-to-DC Converters

Product	Input Voltage Range (V)	Output Voltage (V)	Operating Temp. Range (°C)	Max. Input Current (µA)	Typical Output Current (mA)	Features	Packages
TC1044S	1.5 to 12	$-V_{IN}$ 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

Product	Description	Operating Temp. Range (°C)	Features	Packages
MCP11(1/2) TC (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	5-pin SOT-23, 3-pin TO-92, 3-pin SOT-23A, 3-pin SOT-89, 3-pin SC70
MCP809, MCP100, MCP130, MCP120 MCP13XX, TC1270A and more	System Voltage Supervisors (Available Reset Delays)	–40 to +125 –40 to +85	Wide detection range (custom options available), Low current, Push-Pull/Open Drain, Active high/low, Watchdog, Manual reset, Dual output options, Multiple reset delay options	8-pin SOIC (150 mil), 5-pin SOT-23, 4-pin SOT-143, 3-pin TO-92, 3-pin SOT-23, 5-pin SC70

POWER MANAGEMENT: Power MOSFET Drivers

Product	Configuration	Operating Temp. Range (°C)	Peak Output Current (A)	Output Resistance (Max. @ 25°C)	Max Supply Voltage (V)	Input/Output Delay (ns)	Packages
MCP1401/02 Single	Inverting/Non-inverting	–40 to +125	0.5	18/16	18	40/40	SOT-23
MCP1415/16 Single	Inverting/Non-inverting	–40 to +125	1.5	7.5/5.5	18	50/55	SOT-23
TC4467/8/9 Quad	Inverting/ Non-inverting	–40 to +85	1.2	15/15	18	40/40	PDIP, SOIC
TC4426A/27A/28A Dual	Inverting/Non-inverting	–40 to +125	1.5	9/9	18	30/30	PDIP, SOIC, DFN
TC4423A/24A/25A Dual	Inverting/Non-inverting	–40 to +125	3	3 (typ.)/4 (typ.)	18	40 (typ.)/40 (typ.)	PDIP, SOIC, DFN
MCP14E3/E4/E5 Dual	Inverting/Non-inverting	–40 to +125	4	3.5/3.0	18	55/55	PDIP, SOIC, DFN
MCP14E6/E7/E8 Dual	Inverting/Non-inverting/Inverting and Non-inverting	–40 to +125	2	2.2/2.8	18	45/45	PDIP, SOIC, DFN
MCP14E9/E10/E11 Dual	Inverting/Non-inverting/Inverting and Non-inverting	–40 to +125	3	2.2/2.8	18	75/75	PDIP, SOIC, DFN
MCP1406/07 Single	Inverting/Non-inverting	–40 to +125	6	1.8/2.0 (typ.)	18	30/30	TO-220, PDIP, SOIC, DFN
TC4420/29	Inverting/Non-inverting	–40 to +125	6	2.8/2.5	18	55/55	TO-220, PDIP, SOIC, DFN
TC4421A/22A Single	Inverting /Non-inverting	–40 to +125	9	1.25 (typ.)/1.5	18	38/42	TO-220, PDIP, SOIC, DFN
TC4451/52 Single	Inverting /Non-inverting	–40 to +125	12	0.6 (typ.)/1.5	18	15/15	TO-220, PDIP, SOIC, DFN, 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

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

POWER MANAGEMENT: Battery Chargers

Product	Mode	Cell Type	# of Cells	V_{CC} 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 3 × 3 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 3 × 3 DFN
MCP73830/L	Linear	Li-ion/Li-Polymer	1	3.75 to 6	4.2	1000/200	±0.75	Int	Soft-start, Charge enable pin	6-pin 2 × 2 TDFN
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 2 × 3 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 3 × 3 DFN
MCP73871	Linear	Li-Ion/Li-Polymer	1	3.75 to 6.0	4.1, 4.2, 4.35, 4.4	1500 (A/C Adapter) 500 (USB)	±0.5	Int	Simultaneous charging of load and battery, Load-dependent charging, Multiple programmable charge currents	20-pin 4 × 4 QFN

LINEAR: Op Amps

Product	# per Package	GBWP (MHz)	I_Q Typical (µA)	V_{OS} Max (mV)	Operating Voltage (V)	Packages
MCP661/2/3/4/5/9	1/2/1/4/2/4	60	6000	8	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT
MCP651/1S/2/3/4/5/9	1/1/2/1/4/2/4	50	6000	0.2	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT
MCP631/2/3/4/5/9	1/2/1/4/2/4	24	2500	8	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT
MCP621/1S/2/3/4/5/9	1/1/2/1/4/2/4	20	2500	0.2	2.5 to 5.5	SOIC, MSOP, DFN, TSSOP, QFN, SOT
MCP6H91/2/4	1/2/4	10	2000	4	3.5 to 12.0	DFN, SOIC, TSSOP
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
MCP6491/2/4	1/2/4	7.5	530	1.5	2.4 to 5.5	SOT, SC70, MSOP, TDFN, SOIC, TSSOP
MCP6H81/2/4	1/2/4	5.5	700	4	3.5 to 12.0	DFN, SOIC, TSSOP
MCP6281/2/3/4/5	1/2/1/4/2	5	445	3	2.2 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6481/2/4	1/2/4	4	240	1.5	2.2 to 5.5	SOT, SC70, MSOP, TDFN, SOIC, TSSOP
MCP6286	1	3.5	540	1.5	2.2 to 5.5	SOT
MCP601/2/3/4	1/2/1/4	2.8	230	2	2.7 to 6.0	PDIP, SOIC, TSSOP, SOT
MCP6H71/2/4	1/2/4	2.7	480	4	3.5 to 12.0	DFN, SOIC, TSSOP
MCP6271/2/3/4/5	1/2/1/4/2	2	170	3	2.0 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6471/2/4	1/2/4	2	100	1.5	2 to 5.5	SOT, SC70, MSOP, TDFN, SOIC, TSSOP
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

Product	# per Package	GBWP (MHz)	I_Q Typical (µA)	V_{OS} Max (mV)	Operating Voltage (V)	Packages
MCP6V26/7/8	1/2/1	2	620	0.002	2.3 to 5.5	SOIC, MSOP, DFN
MCP6071/2/4	1/2/4	1.2	110	0.15	1.8 to 6.0	SOIC, TSSOP, DFN, SOT
MCP6H01/2/4	1/2/4	1.2	135	4.5	3.5 to 16	SOIC, TSSOP, TDFN, SOT, SC70
MCP6001/2/4	1/2/4	1	100	4.5	1.8 to 6.0	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP6401/2/4	1/2/4	1	45	4.5	1.8 to 6.0	SOIC, TSSOP, TDFN, SOT, SC70
MCP6061/2/4	1/2/4	0.73	60	0.15	1.8 to 6.0	SOIC, TSSOP, DFN, SOT
MCP6241/2/4	1/2/4	0.55	50	5	1.8 to 5.5	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, SOT
MCP6V31	1	0.3	23	0.008	1.8 to 5.5	SOT, SC70
MCP6231/2/4	1/2/4	0.3	20	5	1.8 to 6.0	PDIP, SOIC, MSOP, TSSOP, TDFN, SOT, SC70
MCP616/7/8/9	1/2/1/4	0.19	19	0.15	2.3 to 5.5	PDIP, SOIC, MSOP, TSSOP
MCP606/7/8/9	1/2/1/4	0.155	19	0.25	2.5 to 6.0	PDIP, SOIC, 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
MCP6421	1	0.09	4.4	1	1.8 to 5.5	SOT, SC70
MCP6V11	1	0.08	7.5	0.008	1.6 to 5.5	SOT, SC70
MCP6041/2/3/4	1/2/1/4	0.014	0.6	3	1.4 to 6.0	PDIP, SOIC, MSOP, TSSOP, SOT
MCP6031/2/3/4	1/2/1/4	0.01	0.9	0.15	1.8 to 5.5	SOIC, MSOP, TSSOP, DFN, SOT
MCP6441/2/4	1/2/4	0.009	0.45	4.5	1.4 to 6.0	SOIC, MSOP, TSSOP, SOT, SC70

LINEAR: Comparators

Product	# Per Package	Typical Propagation Delay (µs)	I_Q Typical (µA)	V_{OS} 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
MCP65R41/6	1	4	2.5	10	1.8 to 5.5	–40 to +125	Integrated V_{REF} (1.21V or 2.4V)	SOT-23
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

Product	Resolution (bits)	Maximum Sampling Rate (ksamples/sec)	# of Input Channels	Input Type	Interface	Max. Supply Current (µA)	Temperature Range (°C)	Packages
MCP3021/3221	10/12	22	1	Single-ended	I²C™	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-to-Analog Converters

Product	Resolution (Bits)	DAC Channels	Interface	Voltage Reference	Output Settling Time (µs)	DNL (±LSB)	Typical Operating Current (µA)	Temperature Range (°C)	Packages
MCP47DA1	6	1	I²C™	V_{DD}	6	0.25	130	–40 to +125	SOT-23
MCP4706/16/26	8/10/12	1	I²C	Ext	6	0.05/0.188/0.75	210	–40 to +125	SOT-23
MCP4725	12	1	I²C	V_{DD}	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	PDIP, SOIC, MSOP, 2x3 DFN
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	PDIP, SOIC, MSOP, 2x3 DFN
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

MIXED SIGNAL: Energy Measurement ICs

Product	Dynamic Range	Typical Accuracy	ADC Channels	ADC Resolution	SINAD	Gain Selection	Output Type	Typical Supply Current (mA)	Analog V_{DD} (V)	Digital V_{DD} (V)	Temperature Range (°C)	Packages
MCP3911	–	–	2	24-bit	94.5 dB	Up to 32	SPI	1.7	2.7 to 3.6	2.7 to 3.6	–40 to +125	SSOP, QFN
MCP3913/14	10000:1	0.1%	6/8	24-bit	94.5 dB	Up to 32	SPI	5.2/6.8	2.5 to 3.6	2.5 to 3.6	–40 to +125	SSOP, QFN
MCP3905A/06A	500:1/1000:1	0.1%	2	16-bit	–	Up to 32	Active power pulse	3.9	4.5 to 5.5	4.5 to 5.5	–40 to +125	SSOP
MCP3909	1000:1	0.1%	2	16-bit	81 dB	Up to 16	Active power pulse/ SPI	3.1	4.5 to 5.5	4.5 to 5.5	–40 to +125	SSOP

MIXED SIGNAL: Current/DC Power Measurement ICs

Product	# Current Sensors	Description	Full Scale Range (mV)	Current Measurement Max. Accr. (%)	Effective Sampling Interval Min. to Max. (msec)	Bus Voltage Range (V)	# Temp. Monitors (ambient, remote)	Temp. Accuracy Typ./Max. (°C)	Alert/ Therm.	Peak Detection	Interface	Packages
PAC1710	1	Current/DC Power Sensor	10, 20, 40, 80	±1	2.5 to 2600	0 to +40	N/A	N/A	1	–	SMBus/I²C™	10-pin DFN
PAC1720	2	Dual Current/ DC Power Sensor	10, 20, 40, 80	±1	2.5 to 2600	0 to +40	N/A	N/A	1	–	SMBus/I²C	10-pin DFN
EMC1701/2/4	1	Current/DC Power Sensor with Temperature Monitoring	10, 20, 40, 80	±1	2.5 to 2600	+3 to +24	1, 0/1/3	±0.25/±1.0	2	✓	SMBus/I²C	12-pin QFN, 10-pin MSOP, 16-pin QFN, 14-pin SOIC

MIXED SIGNAL: Digital Potentiometers

Product	# of Taps	Memory	Channels	Interface	Resistance (kΩ)	Temperature Range (°C)	Packages
MCP4011/12/13/14	64	Volatile	1	Up/Down	2.1, 5, 10, 50	–40 to +125	DFN, SOT-23
MCP4017/18/19	128	Volatile	1	I²C™	5, 10, 50, 100	–40 to +125	SC70
MCP40D17/D18/D19	128	Volatile	1	I²C	5, 10, 50, 100	–40 to +125	SC70
MCP4021/22/23/24	64	Nonvolatile	1	Up/Down	2.1, 5, 10, 50	–40 to +125	DFN, SOT-23
MCP4141/42	128	Nonvolatile	1	SPI	5, 10, 50, 100	–40 to +125	MSOP, QFN, DFN
MCP4241/42	128	Nonvolatile	2	SPI	5, 10, 50, 100	–40 to +125	MSOP, QFN, DFN
MCP4131/32	128	Volatile	1	SPI	5, 10, 50, 100	–40 to +125	QFN, DFN
MCP4231/32	128	Volatile	2	SPI	5, 10, 50, 100	–40 to +125	MSOP, QFN, DFN
MCP4151/52	256	Volatile	1	SPI	5, 10, 50, 100	–40 to +125	MSOP, QFN, DFN
MCP4161/62	256	Nonvolatile	1	SPI	5, 10, 50, 100	–40 to +125	MSOP, QFN, DFN
MCP4251/52	256	Volatile	2	SPI	5, 10, 50, 100	–40 to +125	MSOP, QFN, DFN
MCP4261/62	256	Nonvolatile	2	SPI	5, 10, 50, 100	–40 to +125	MSOP, QFN, DFN
MCP4341/42	129	Nonvolatile	4	SPI	5, 10, 50, 100	–40 to +125	TSSOP, QFN
MCP4361/62	257	Nonvolatile	4	SPI	5, 10, 50, 100	–40 to +125	TSSOP, QFN

Product	# of Taps	Memory	Channels	Interface	Resistance (kΩ)	Temperature Range (°C)	Packages
MCP4331/32	129	Volatile	4	SPI	5,10,50,100	–40 to +125	TSSOP, QFN
MCP4351/52	257	Volatile	4	SPI	5,10,50,100	–40 to +125	TSSOP, QFN
MCP4431/32	129	Volatile	4	I²C	5, 10, 50, 100	–40 to +125	TSSOP, QFN
MCP4441/42	129	Nonvolatile	4	I²C	5, 10, 50, 100	–40 to +125	TSSOP, QFN
MCP4451/52	257	Volatile	4	I²C	5, 10, 50, 100	–40 to +125	TSSOP, QFN
MCP4461/62	257	Nonvolatile	4	I²C	5, 10, 50, 102	–40 to +125	TSSOP, QFN
MCP4531/32	128	Volatile	1	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN
MCP4631/32	128	Volatile	2	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN
MCP4541/42	128	Nonvolatile	1	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN
MCP4641/42	128	Nonvolatile	2	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN
MCP4551/52	256	Volatile	1	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN
MCP4651/52	256	Volatile	2	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN
MCP4561/62	256	Nonvolatile	1	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN
MCP4661/62	256	Nonvolatile	2	I²C	5, 10, 50, 100	–40 to +125	MSOP, DFN

MIXED SIGNAL: Delta Sigma Analog-to-Digital Converters

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

INTERFACE: Controller Area Network (CAN), Infrared, LIN Transceivers, Ethernet, Serial Peripherals, USB Bridges

Product	Description	Operating Temperature Range (°C)	Other Features	Packages
MCP2515	Stand-alone CAN controller with SPI Interface	–40 to +125	3 Tx Buffers, 2 Rx Buffers, 6 Filters, 2 Masks, Interrupt output, MCP2510 upgrade	PDIP, SOIC, TSSOP, QFN
MCP256(1/2)	High-Speed CAN Transceiver	–40 to +150	V_{DD} = 4.5V to 5.5V, 1 Mbps, ISO11898-5, meets automotive EMC and CAN conformance requirements, MCP2561 = SPLIT Option for common mode stabalization, MCP2562 = V_{IO} Option for digital I/O level shifting from 1.8V to 5.5V	PDIP, SOIC, DFN
MCP200(3/4)A, MCP202(1/2)A, MCP2025, MCP2050	LIN (Local Interconnect Network) transceivers	–40 to +125	Product options: Stand-alone transceiver, intergrated V_{REG} = 3.3V or 5V @ 70 mA, integrated WWDT, integrated ratio-metric battery monitor. V_{CC} Range = 6 to 18 V, Max Baud Rate = 20 Kbaud, Compliant with LIN 1.3, 2.0 2.1, SAE J2602, Automotive grade	PDIP, SOIC, TSSOP, DFN, QFN
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, MCP2210	USB Bridge Products: USB-to-UART, USB-to-SPI	–40 to +85	Supports full speed, USB 2.0 compliant, integrated PHY, Tx/Rx buffer size 64–128 bytes each, 8–9 GPIO, V_{DD} Range = 3.0 to 5.5V	SOIC, SSOP, QFN
ENC28J60	Stand-alone 10 Base-T Ethernet controller with SPI interface	–40 to +85	Ethernet controller, 8 KB RAM Buffer, Integrated 10Base-T PHY	SPDIP, SOIC, SSOP, QFN
ENC424J600	Stand-alone 10/100 Base-T Ethernet controller with SPI and parallel interface	–40 to +85	Ethernet controller, 24 KB RAM Buffer, Cryptographic Security Engine, 10/100Base-T PHY	TQFP, QFN
ENC624J600	Stand-alone 10/100 Base-T Ethernet controller with SPI and parallel interface	–40 to +85	Ethernet controller, 24 KB RAM Buffer, Cryptographic Security Engine, 10/100Base-T PHY	TQFP

INTERFACE: USB Port Power Controllers with Charger Emulation

Product	Description	USB Port Power Switch (55 mW)	Hi-Speed USB 2.0 Switch	Battery Charger Emulation Profiles	Output Current	Indicator Output	Current Measurement	Interface	Packages
UCS1001-3/4	USB Port Power Controller with Charger Emulation	1	1	9	Up to 2.5A	Charging/Attach Detect	–	Discrete I/O	20-pin 4 x 4 QFN
UCS1002-2	Programmable USB Port Power Controller with Charger Emulation	1	1	9 plus 1 programmable	Up to 2.5A	Charging	✓	I²C™ /SMBus	20-pin 4 x 4 QFN

INTERFACE: mTouch™ AR1000 Resistive Touch Screen Controllers

Product	Type	Communication	Touch Screens Supported	A/D	Resolution	Power	Points Per Second	Operating Temp. Range (°C)	Static Protection	5 ku Pricing†	Special Features	Packages
AR1021	Analog Resistive	SPI, I²C™	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 × 1024	2.5V DC ±5% 5.5V DC ±5%	140 pps	–40 to +85	Per schematic	$1.32	Controller driven calibration & Universal for all touch screens	20-pin SSOP (SS), SOIC (SO), QFN (ML)
AR1011	Analog Resistive	UART	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 × 1024	2.5V DC ±5% 5.5V DC ±5%	140 pps	–40 to +85	Per schematic	$1.39	Controller driven calibration & Universal for all touch screens	20-pin SSOP (SS), SOIC (SO), QFN (ML)
AR1100	Analog Resistive	USB, UART	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 × 1024	3.3V DC ±5% 5.5V DC ±5%	150 pps	–40 to +85	Per schematic	$1.61	Controller driven calibration & Universal for all touch screens	20-pin SSOP (SS), SOIC (SO), QFN (ML)
AR1100BRD	Analog Resistie	USB, RS-232	All Manufacturers 4, 5 and 8 wire	Internal 10-bit Ratiometric	1024 × 1024	3.3V DC ±5% 5.5V DC ±5%	150 pps	–40 to +85	Per schematic	$12.78	Controller driven calibration & Universal for all touch screens	Board Module

SAFETY & SECURITY: Smoke Detector and Horn Driver ICs

Product	Horn Driver	Detection Method	Low Battery Detection	Alarm Memory	Alarm Interconnect	Hush/Sensitivity Timer	Operating Temperature Range (°C)	Packages
RE46C140/1/3/4/5	Yes	Photo	Yes	No	Yes	140/4/5	–25 to +75	PDIP, SOIC
RE46C12X & 152	Yes	Ion	Yes	No	Not 120	122/7,152	–10 to +60	PDIP
RE46C10X & 11X	Yes	Just Driver	5/7/9/19	NA	9/19	None	See Datasheet	See Datasheet
RE46C162/3, 5/6/7/8	Yes	Ion/Photo	Yes	Yes	Yes	Yes	–25 to +75	PDIP, SOIC
RE46C180	Yes	Ion	Yes	Yes	Yes	Yes	–10 to +60	PDIP, SOIC
RE46C190	Yes	Photo	Yes	Yes	Yes	Yes	–10 to +60	SOIC
RE46C317/8	Yes	Just Driver	No	No	No	No	–10 to +60	PDIP, SOIC

MOTOR DRIVERS: Stepper Motors, DC Motors and 3 Phase BLDC Fan Controllers

Product	Motor Type	Input Voltage Range (V)	Internal/External FETs	Output Current (mA)	Control Scheme	Motor Speed Output	Protections	Temp. Operating Range (°C)	Features	Packages
MTS62C19A	One Bipolar Stepper Motor or Two DC Motors	10.0 to 40.0	Internal	750	Direct PWM Input, Current Limit Control, Microstepping	No	Overcurrent, Overtemperature, Under Voltage	–40 to +105	Dual Full Bridge Motor Driver for Stepper Motors, Pin Compatible with Allegro 6219	24-pin SOP
MTS2916A	One Bipolar Stepper Motor or Two DC Motors	10.0 to 40.0	Internal	750	Direct PWM Input, Current Limit Control, Microstepping	No	Overcurrent, Overtemperature, Under Voltage	–40 to +105	Dual Full Bridge Motor Driver for Stepper Motors, Pin Compatible with Allegro 2916	24-pin SOP
MTD6505	3-Phase Brushless DC Motor	2.0 to 5.5	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Overvoltage, Short Circuit, Overtemperature, Motor Lock-up	–40 to +125	180° Sinusoidal Sensorless Drive, Direction Control, Programmable BEMF Coefficient Range, Fsw = 30 kHz	10-pin UDFN (3 × 3)
MTD6501C/D/G	3-Phase Brushless DC Motor	2.0 to 14.0	Internal	800/500/800	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Short Circuit Overtemperature, Motor Lock-up	–30 to +95	180° Sinusoidal Sensorless Drive, Direction Control, Boost Mode (D), Fsw = 20 kHz (C/D), 23 kHz (G)	8-pin SOP (C, G), 10-pin MSOP (D)
MTD6502B	3-Phase Brushless DC Motor	2.0 to 5.5	Internal	750	Sensorless Sinusoidal	Frequency Generator	Overcurrent, Short Circuit Overtemperature, Motor Lock-up	–40 to+125	180° Sinusoidal Sensorless Drive, Direction Control, Fsw = 30 kHz	10-pin TDFN (3 × 3)

REAL-TIME CLOCK/CALENDAR (RTCC)

Bus	Product	Pins	Timing Features				Memory(1)			Power		Unique Features(2)	5 ku Pricing†	Packages
			Digital Trimming (Adj./Range)	Alarm Settings	WDT	Outputs	SRAM (Bytes)	EERPOM (Kbits)	ID/MAC (Bits)	Min V_{CC}	Min I_{BAT}			
I²C™	MCP7940M	8	±127 ppm	1 sec.	–	$\overline{IRQ}$/CLK	64	0	0	1.8	–	–	$0.46	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY), PDIP (P)
I²C™	MCP7940N	8	±127 ppm	1 sec.	–	$\overline{IRQ}$/CLK	64	0	0	1.8	1.3	Power Fail Timestamp	$0.59	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY), PDIP (P)
I²C™	MCP7940X	8	±127 ppm	1 sec.	–	$\overline{IRQ}$/CLK	64	0	64	1.8	1.3	Power Fail Timestamp	$0.66	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)
I²C™	MCP7941X	8	±127 ppm	1 sec.	–	$\overline{IRQ}$/CLK	64	1	64	1.8	1.3	Power Fail Timestamp	$0.72	SOIC (SN), TSSOP (ST), MSOP (MS), TDFN (MNY)
SPI	MCP7951X	10	±255 ppm	0.01 sec.	–	$\overline{IRQ}$/CLK	64	1	128	1.8	1.3	Power Fail Timestamp	$0.90	SOIC (SL), TSSOP (ST)
SPI	MCP7952X	10	±255 ppm	0.01 sec.	–	$\overline{IRQ}$/CLK	64	2	128	1.8	1.3	Power Fail Timestamp	$0.96	MSOP (MS), TDFN (MN)
SPI	MCP795W1X	14	±255 ppm	0.01 sec.	✓	1. CLK 2. IRQ 3. WDT RST	64	1	128	1.8	1.3	Power Fail Timestamp, Event Detects (× 2)	$1.22	SOIC (SL), TSSOP (ST)
SPI	MCP795W2X	14	±255 ppm	0.01 sec.	✓	1. CLK 2. IRQ 3. WDT RST	64	2	128	1.8	1.3	Power Fail Timestamp, Event Detects (× 2)	$1.28	SOIC (SL), TSSOP (ST)

Note 1: All part numbers with an "X" have three ID programming options: [0 = Blank ID], [1 = EU-48™ MAC Address], [2 =EUI-64™ MAC Address]
2: The Power Fail Timestamp in all RTCCs occur at Battery Switchover.

Products sorted by pin count followed by pricing.
† 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
												Hardware	Software				
Serial SRAM																	
SPI	23X640	R	64 Kb	× 8	20 MHz	1.5V–1.95V 2.7V–3.6V	−40°C to +125°C	∞	Volatile	0 ms	4 µA	–	–	–	$0.51	Zero write cycle time, Infinite endurance, Volatile RAM, Byte/page/ sequential read-write modes	PDIP (P), SOIC (SN), TSSOP (ST)
	23X256	R	256 Kb	× 8	20 MHz	1.5V–1.95V 2.7V–3.6V	−40°C to +125°C	∞	Volatile	0 ms	4 µA	–	–	–	$0.87	Zero write cycle time, Infinite endurance, Volatile RAM, Byte/page/ sequential read-write modes	PDIP (P), SOIC (SN), TSSOP (ST)
	23XX512	R	512 Kb	× 8	20 × 4 MHz	1.7V–2.2V 2.5V–5.5V	−40°C to +125°C	∞	Volatile	0 ms	4 µA	–	–	–	$1.24	Fast Speed: Quad SPI available (80 MHz); Infinite endurance; Zero write times, 5V capable	SOIC (SN), PDIP (P), TSSOP (ST)
	23XX1024	R	1024 Kb	× 8	20 × 4 MHz	1.7V–2.2V 2.5V–5.5V	−40°C to +125°C	∞	Volatile	0 ms	4 µA	–	–	–	$1.73	Fast Speed: Quad SPI available (80 MHz); Infinite endurance; Zero write times, 5V capable	SOIC (SN), PDIP (P), TSSOP (ST)
Serial NVSRAM																	
SPI	23LCV512	R	512 Kb	× 8	20 MHz	–	−40°C to +125°C	∞	20 Years via battery	0 ms	4 µA	–	–	–	$1.40	Battery backed non-volatile SRAM; Infinite endurance; Zero write times	SOIC (SN), PDIP (P), TSSOP (ST)
	23LCV1024	R	1024 Kb	× 8	20 MHz	–	−40°C to +125°C	∞	20 Years via battery	0 ms	4 µA	–	–	–	$1.98	Battery backed non-volatile SRAM; Infinite endurance; Zero write times	SOIC (SN), PDIP (P), TSSOP (ST)
Serial EEPROM																	
UNI/O® Bus	11XX010	R	1 Kb	× 8	100 kHz	1.8V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	–	✓	W, ½, ¼	$0.23	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS), DFN (MNY), TO-92 (TO), 3-SOT-23 (TT), WLCSP (CS)
	11XX020/E48/ E64/UID	R	2 Kb	× 8	100 kHz	1.8V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	–	✓	W, ½, ¼	$0.25	Single I/O for all clock, data, control and write protection, Unique EUI-48™/EUI-64™ MAC address and unique ID options available	PDIP (P), SOIC (SN), MSOP (MS), DFN (MNY), TO-92 (TO), 3-SOT-23 (TT), WLCSP (CS)
	11XX040	R	4 Kb	× 8	100 kHz	1.8V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	–	✓	W, ½, ¼	$0.26	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS), DFN (MNY), TO-92 (TO), 3-SOT-23 (TT), WLCSP (CS)
	11XX080	R	8 Kb	× 8	100 kHz	1.8V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	–	✓	W, ½, ¼	$0.30	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS), DFN (MNY), TO-92 (TO), 3-SOT-23 (TT), WLCSP (CS)
	11XX160	R	16 Kb	× 8	100 kHz	1.8V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	–	✓	W, ½, ¼	$0.33	Single I/O for all clock, data, control and write protection	PDIP (P), SOIC (SN), MSOP (MS), DFN (MNY), TO-92 (TO), 3-SOT-23 (TT), WLCSP (CS)
I²C™	24XX00	R	128 b	× 8	400 kHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	4 ms	1 µA	–	–	–	$0.17	100 kHz operation from 1.7V to 4.5V	PDIP (P), SOIC (SN), TSSOP (ST), DFN (MNY), 5-SOT-23 (OT)
	24XX01/014	R	1 Kb	× 8	400 kHz	1.7V–5.5V 1.5V–3.6V	−40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	–	W, ½	$0.18	Address pin option: connect up to 8 devices on bus, Very low voltage option	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 5-SOT-23 (OT), SC70 (LT)
	24XX02/024/ E48/E64/UID	R	2 Kb	× 8	400 kHz	1.7V–5.5V 1.5V–3.6V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	–	W, ½	$0.20	Address pin option: connect up to 8 devices on bus, Very low voltage option, Unique EUI-48/EUI-64 MAC address and unique ID options available	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 5-SOT-23 (OT), SC70 (LT)
	34XX02	R	2 Kb	× 8	1 MHz	1.7V–5.5V 1.5V–3.6V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½	$0.18	1 MHz @ 2.5V, Permanent and restable software WP – DIMM-DDR2/3	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	24XX04	R	4 Kb	× 8	400 kHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	–	W, ½	$0.21	400 kHz @ 2.5V, 16 byte page write buffer, No address pins	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 5-SOT-23 (OT), WLCSP (CS)
	24XX08	R	8 Kb	× 8	400 kHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	–	W, ½	$0.23	400 kHz @ 2.5V, 16 byte page write buffer, No address pins	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 5-SOT-23 (OT),
	24XX16	R	16 Kb	× 8	400 kHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	–	W, ½	$0.25	400 kHz @ 2.5V, 16 byte page write buffer, No address pins	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 5-SOT-23 (OT), WLCSP (CS)
	24XX32A	R	32 Kb	× 8	400 kHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	–	W, ¼	$0.31	400 kHz @ 2.5V, 32 byte page write buffer, connect up to 8 devices on bus	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 5-SOT-23 (OT), WLCSP (CS)
	24XX64/65	R	64 Kb	× 8	1 MHz	1.7V–5.5V	−40°C to +125°C	1M, 10M	200 Years	5 ms	1 µA	✓	–	W, ¼	$0.38	1 MHz @ 2.5V, 32/64 byte page, Relocatable 4 Kb block with 10M cycles endurance	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 5-SOT-23 (OT), WLCSP (CS)
	24XX128	R	128 Kb	× 8	1 MHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	–	W	$0.54	1 MHz @ 2.5V, 64 byte page, Connect up to 8 devices on bus	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), WLCSP (CS)
	24XX256/UID	R	256 Kb	× 8	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, EUI-48, EUI-64 & unique ID options available	PDIP (P), SOIC (SN), TSSOP (ST), SOIJ (SM), MSOP (MS), DFN (MF), WLCSP (CS), TDFN (MNY)
	24XX512	R	512 Kb	× 8	1 MHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	1 µA	✓	–	W	$1.50	1 MHz @ 2.5V, 128 byte page, Connect up to 8 devices on bus	PDIP (P), SOIC (SN), TSSOP (ST), DFN (MF), SOIJ (SM), WLCSP (CS)
	24XX1025/26	R	1 Mb	× 8	1 MHz	1.7V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	5 µA	✓	–	W	$3.14	1 MHz @ 2.5V, 128 byte page, Connect up to 4 devices on bus	PDIP (P), SOIC (SN), SOIJ (SM)
	24XX1024	NR	1 Mb	× 8	1 MHz	2.5V–5.5V	−40°C to +125°C	1M	200 Years	5 ms	5 µA	✓	–	W	–	1 MHz @ 2.5V, 256 byte page,Connect up to 4 devices on bus	PDIP (P), SOIC (SN), TSSOP (ST), DFN (MF), SOIJ (SM)

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

SERIAL MEMORY PRODUCTS

Bus	Product	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	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
												Hardware	Software				
Serial EERPOM (Cont.)																	
Microwire	93XX46A/B/C	R	1 Kb	× 8/× 16	3 MHz	1.8V–5.5V	–40°C to +125°C	1M	200 Years	6 ms	1 µA	–	–	–	$0.18	ORG pin to select word size on 46C version	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	93XX56A/B/C	R	2 Kb	× 8/× 16	3 MHz	1.8V–5.5V	–40°C to +125°C	1M	200 Years	6 ms	1 µA	–	–	–	$0.20	ORG pin to select word size in 56C version	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	93XX66A/B/C	R	4 Kb	× 8/× 16	3 MHz	1.8V–5.5V	–40°C to +125°C	1M	200 Years	6 ms	1 µA	–	–	–	$0.21	ORG pin to select word size in 66C version	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	93XX76A/B/C	R	8 Kb	× 8/× 16	3 MHz	1.8V–5.5V	–40°C to +125°C	1M	200 Years	6 ms	1 µA	✓	–	W	$0.30	ORG pin to select word size in 76C version	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	93XX86A/B/C	R	16 Kb	× 8/× 16	3 MHz	1.8V–5.5V	–40°C to +125°C	1M	200 Years	6 ms	1 µA	✓	–	W	$0.33	ORG pin to select word size in 86C version	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
SPI	25XX010A	R	1 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.30	5 MHz @ 2.5V, Status register, 16 byte page	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	25XX020A/ E48/E64/UID	R	2 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.31	5 MHz @ 2.5V, Status register, 16 byte page, Unique EUI-48™/EUI-64™ MAC address and unique ID options available	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	25XX040A	R	4 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.33	5 MHz @ 2.5V, Status register, 16 byte page	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY), 6-SOT-23 (OT)
	25XX080C/D	R	8 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.40	16/32 byte page, 5 MHz @ 2.5V, Status register	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY)
	25XX160C/D	R	16 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.41	16/32 byte page, 5 MHz @ 2.5V, Status register	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY)
	25XX320A	R	32 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.45	5 MHz @ 2.5V, Status register, 32 byte page	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY)
	25XX640A	R	64 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.46	5 MHz @ 2.5V, Status register, 32 byte page	PDIP (P), SOIC (SN), TSSOP (ST), MSOP (MS), DFN (MNY, MF)
	25XX128	R	128 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$0.74	5 MHz @ 2.5V, Status register, 64 byte page	PDIP (P), SOIC (SN), TSSOP (ST), DFN (MF)
	25XX256	R	256 Kb	× 8	10 MHz	1.8V–5.5V	–40°C to +150°C	1M	200 Years	5 ms	1 µA	✓	✓	W, ½, ¼	$1.01	5 MHz @ 2.5V, Status register, 64 byte page	PDIP (P), SOIC (SN), TSSOP (ST), DFN (MF), SOIJ (SM)
	25XX512	R	512 Kb	× 8	20 MHz	1.8V–5.5V	–40°C to +125°C	1M	200 Years	5 ms	10 µA	✓	✓	W, ½, ¼	$1.53	10 MHz @ 2.5V, Deep power down, Status register, Page/sector/chip erase	PDIP (P), SOIC (SN), DFN (MF), SOIJ (SM)
	25XX1024	R	1 Mb	× 8	20 MHz	1.8V–5.5V	–40°C to +125°C	1M	200 Years	6 ms	12 µA	✓	✓	W, ½, ¼	$2.59	10 MHz @ 2.5V, Deep power down, Status register, Page/sector/chip erase	PDIP (P), DFN (MF), SOIJ (SM)

1: All devices are Pb-Free and RoHS compliant.
2: ESD protection > 4kV (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 FLASH MEMORY

Bus	Product	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	E/W Endurance (Minimum)	Data Retention (Minimum)	Write Spped (Typical)	Max. Standby Current	Write Protect			Special/Unique Features	Packages*
												Hardware	Software	Protected Array Size		
×1	SST25VF512A	R	512 Kb	64K × 8	33 MHz	2.7–3.6V	0°C to 70°C –40°C to +85°C –20 to +85°C	100,000 cycles (typical)	100 years	14 µs (Byte Program)	8 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON, 8B-XFBGA
	SST25VF010A	R	1 Mb	128K × 8	33 MHz	2.7–3.6V	0°C to 70°C –40°C to +85°C –20 to +85°C	100,000 cycles (typical)	100 years	14 µs (Byte Program)	8 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON, 8B-XFBGA
	SST25VF020B	R	2 Mb	256K × 8	80 MHz	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25PF020B	R	2 Mb	256K × 8	40 MHz	2.3–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25WF020A	NR	2 Mb	256K × 8	40 MHz	1.65–1.95V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	20 years	3 ms (Page Program)	10 µA	✓	✓	Various	Single-input page program, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25VF040B	R	4 Mb	512K × 8	80 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON, 8B-XFBGA
	SST25PF040B	R	4 Mb	512K × 8	40 MHz	2.3–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25VF080B	R	8 Mb	1M × 8	80 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON, 8B-XFBGA
	SST25PF080B	R	8 Mb	1M × 8	40 MHz	2.3–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25VF016B	R	16 Mb	2M × 8	75 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25VF032B	R	32 Mb	4M × 8	80 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (typical)	100 years	7 µs (Word Program)	5 µA	✓	✓	Various	Auto address increment programming, Fast read, program and erase	8L-SOIC, 8C-WSON
×1, ×2	SST25WF040B	NR	4 Mb	512K × 8	40 MHz	1.65–1.95V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	20 years	1 ms (Page Program)	10 µA	✓	✓	Various	Dual output and dual I/O read, Single- and dual-input page program, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25WF080B	NR	8 Mb	1M × 8	40 MHz	1.65–1.95V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	20 years	1 ms (Page Program)	10 µA	✓	✓	Various	Dual output and dual I/O read, Single- and dual-input page program, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST25VF064C	R	64 Mb	8M × 8	80 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (typical)	100 years	1.5 ms (Page Program)	20 µA	✓	✓	Various	Dual output and dual I/O read, Single- and dual-input page program, One-time programmable area, Fast read, program and erase	8L-SOIC, 8C-WSON, 16L-SOIC
×4	SST26VF016	R	16 Mb	2M × 8	80 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	15 µA	✓	✓	Various	SQI™ Quad I/O read/program/erase, Burst read, Index jump feature, Individual block read and write protection. Fast read, program and erase	8L-SOIC, 8C-WSON
	SST26VF032	R	32 Mb	4M × 8	80 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	15 µA	✓	✓	Various	SQI Quad I/O read/program/erase, Burst read, Index jump feature, Individual block read and write protection. Fast read, program and erase	8L-SOIC, 8C-WSON
×1, ×2, ×4	SST26WF080B/BA	NR	8 Mb	1M × 8	104 MHz	1.65–1.95V	–40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	40 µA	✓	✓	Various	×1, ×2, ×4 read, Single-and quad-input page program, Burst read, Write suspend, Individual block read and write protection, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST26WF016B/BA	NR	16 Mb	2M × 8	104 MHz	1.65–1.95V	–40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	40 µA	✓	✓	Various	×1, ×2, ×4 read, Single-and quad-input page program, Burst read, Write suspend, Individual block read and write protection, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST26VF032B/BA	NR	32 Mb	4M × 8	104 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	45 µA	✓	✓	Various	×1, ×2, ××4 read, Single-and quad-input page program, Burst read, Write suspend, Individual block read and write protection, Fast read, program and erase	8L-SOIC, 8C-WSON
	SST26VF064B/BA	NR	64 Mb	8M × 8	104 MHz	2.7–3.6V	–40°C to +85°C	100,000 cycles (minimum)	100 years	1 ms (Page Program)	45 µA	✓	✓	Various	×1, ×2, ×4 read, Single-and quad-input page program, Burst read, Write suspend, Individual block read and write protection, Fast read, program and erase	8L-SOIC, 8C-WSON

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

LPC FIRMWARE FLASH/FIRMWARE HUB FLASH MEMORY

Bus	Product	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	E/W Endurance (Minimum)	Data Retention (Minimum)	Write Spped (Typical)	Max. Standby Current	Write Protect			Special/Unique Features	Packages
												Hardware	Software	Protected Array Size		
×4	SST49LF008A	R	8 Mb	1M × 8	33 MHz	3.0–3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	Firmware Hub (FWH) device for PC-BIOS application, provide protection for the storage and update of code and data	32L-PLCC, 32L-TSOP
	SST49LF016C	R	16 Mb	2M × 8	33 MHz	3.0–3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	Firmware Hub (FWH) device for PC-BIOS application, provide protection for the storage and update of code and data	32L-PLCC, 32L-TSOP
	SST49LF080A	R	8 Mb	1M × 8	33 MHz	3.0–3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	LPC Flash devices comply with the standard Intel Low Pin Count (LPC) Interface Specification 1.1, provide protection for the storage and update of code and data	32L-PLCC, 32L-TSOP
	SST49LF160C	R	16 Mb	2M × 8	33 MHz	3.0–3.6V	0°C to 70°C	100,000 cycles (minimum)	100 years	14 µs (Byte Program)	14 µA	✓	✓	Various	LPC Flash devices comply with the standard Intel Low Pin Count (LPC) Interface Specification 1.1, provide protection for the storage and update of code and data	32L-PLCC

PARALLEL FLASH MEMORY

Bus	Product*	Released (R) Not Released (NR)	Density	Organization	Max. Clock Frequency	Operating Voltage	Temperature Range	E/W Endurance (Minimum)	Data Retention (Minimum)	Write Speed (Typical)	Max. Standby Current	Write Protect			Special/Unique Features	Packages**
												Hardware	Software	Protected Array Size		
×8	SST39SF010A	R	1 Mb	128K × 8	45/70 ns	4.5–5.5V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	30 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	32L-PLCC, 32L-PDIP, 32L-TSOP
	SST39LF010	R	1 Mb	512K × 8	45 ns	3.0–3.6V	0°C to 70°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 32L-TSOP, 32L-PLCC
	SST39VF010	R	1 Mb	512K × 8	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 32L-TSOP, 32L-PLCC
	SST39LF020	R	2 Mb	512K × 8	45 ns	3.0–3.6V	0°C to 70°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 32L-TSOP, 32L-PLCC
	SST39SF020A	R	2 Mb	256K × 8	45/55/70 ns	4.5–5.5V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	30 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	32L-PLCC, 32L-PDIP, 32L-TSOP
	SST39VF020	R	2 Mb	512K × 8	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 32L-TSOP, 32L-PLCC
	SST39SF040	R	4 Mb	512K × 8	45/70 ns	4.5–5.5V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	30 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	32L-PLCC, 32L-PDIP, 32L-TSOP
	SST39LF040	R	4 Mb	512K × 8	45 ns	3.0–3.6V	0°C to 70°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 32L-TSOP, 32L-PLCC
	SST39VF040	R	4 Mb	512K × 8	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	14 µs (Byte Program)	1 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 32L-TSOP, 32L-PLCC
	SST39VF168X	R	16 Mb	2M × 8	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs (Byte Program)	3 µA	✓	–	64 KB	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48L-TSOP
×16	SST39LF200A	R	2 Mb	128K × 16	55 ns	3.0–3.6V	0°C to 70°C	100,000 cycles (typical)	100 years	14 µs (Word Program)	3 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48L-TSOP
	SST39VF200A	R	2 Mb	128K × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	14 µs (Word Program)	3 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48L-TSOP, 48B-WFBGA
	SST39LF40XC	R	4 Mb	256K × 16	55 ns	3.0–3.6V	0°C to 70°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	–	8 KB	Fast read, program and erase; Low power; Small erase sector; Industry standard command set and boot block structure	48B-TFBGA, 48L-TSOP, 48B-WFBGA
	SST39WF400B	R	4 Mb	256K × 16	70 ns	1.65–1.95V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	28 µs (Word Program)	40 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48B-WFBGA, 48B-XFBGA
	SST39VF40XC	R	4 Mb	256K × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	–	8 KB	Fast read, program and erase; Low power; Small erase sector; Industry standard command set and boot block structure	48B-TFBGA, 48L-TSOP, 48B-WFBGA
	SST39WF800B	R	8 Mb	512K × 16	70 ns	1.65–1.95V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	28 µs (Word Program)	40 µA	–	–	N/A	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48B-WFBGA, 48B-XFBGA
	SST39LF80XC	R	8 Mb	512K × 16	55 ns	3.0–3.6V	0°C to 70°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	–	N/A	Fast read, program and erase; Low power; Small erase sector; Industry standard command set and boot block structure	48B-TFBGA, 48L-TSOP, 48B-WFBGA
	SST39VF80XC	R	8 Mb	512K × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	–	N/A	Fast read, program and erase; Low power; Small erase sector; Industry standard command set and boot block structure	48B-TFBGA, 48L-TSOP, 48B-WFBGA
	SST39WF160X	R	16 Mb	1M × 16	70 ns	1.65–1.95V	0°C to 70°C –40°C to +85°C	100,000 cycles (typical)	100 years	28 µs (Word Program)	40 µA	✓	–	64 KB	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48B-WFBGA, 48B-XFBGA
	SST39VF160XC	R	16 Mb	1M × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	3 µA	✓	–	8 KB	Fast read, program and erase; Low power; Small erase sector; Industry standard command set and boot block structure	48B-TFBGA, 48L-TSOP, 48B-WFBGA
	SST39VF160X	R	16 Mb	2M × 8	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs (Byte Program)	3 µA	✓	–	64 KB	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48L-TSOP
	SST39VF320XB	R	32 Mb	2M × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	4 µA	✓	–	32 KB	Fast read, program and erase; Low power; Small erase sector	48B-TFBGA, 48L-TSOP
	SST39VF320XC	R	32 Mb	2M × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs (Word Program)	4 µA	✓	–	8 KB	Fast read, program and erase; Low power; Small erase sector; Industry standard command set and boot block structure	48B-TFBGA, 48L-TSOP
	SST38VF640X	R	64 Mb	4M × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs/1.75 µs (Write Buffer Program)	3 µA	✓	✓	32 KB/ 8 KB	Fast read, program and erase; Low power; Small erase sector Industry standard command set and boot block structure, Security features	48B-TFBGA, 48L-TSOP
	SST38VF640XB	NR	64 Mb	4M × 16	70 ns	2.7–3.6V	0°C to 70°C –40°C to +85°C	100,000 cycles	100 years	7 µs/1.75 µs (Write Buffer Program)	3 µA	✓	✓	32 KB/ 8 KB	Fast read, program and erase; Low power; Industry standard command set and boot block structure, Security features	48B-TFBGA, 48L-TSOP

*X is a wildcard to indicate "top" or "bottom" boot block support. Please refer to the respective datasheets for more details.
**Only standard packages are listed here. Please inquire with your local sales office for devices in die form or in chip-scale packages.

WIRELESS PRODUCTS

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	Protocols	Encryption	Interface	Volume Pricing†	Packages
IEEE 802.11 Modules																
MRF24WB0MA	36	2.412–2.484	–91	10	Yes	154	85	25 MHz	0.1 µA(1)	Yes	802.11b	Wi-Fi® Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf(2)	WPA2-PSK, WPA-PSIC, WEP	4-wire SPI	$19.23	36/Module
MRF24WB0MB	36	2.412–2.484	–91	10	Yes	154	85	25 MHz	0.1 µA(1)	Yes	802.11b	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf(2)	WPA2-PSK, WPA-PSIC, WEP	4-wire SPI	$19.23	36/Module
RN171	49	2.412–2.484	–83	0 to +12	Yes	180 (+12 dBm)	35	44 MHz	4 µA	Yes	802.11b/g, SoftAP, WPS, Webscan	DHCP, DNS, ARP, ICMP, FTP client, HTTP client, TCP, UDP	WEP, WPA, WPA2, EAP	UART, SPI Slave	$25.33	49/Module
MRF24WG0MA	36	2.412–2.484	–95	18	Yes	240	156	25 MHz	0.1 mA(1)	Yes	802.11b/g, Wi-Fi Direct, SoftAP, WPS	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf(2)	WPA2-PSK, WPA-PSK, WEP, WPA-2-ENTERPRISE	4-wire SPI	$26.90	36/Module
MRF24WG0MB	36	2.412–2.484	–95	18	Yes	240	156	25 MHz	0.1 mA(1)	Yes	802.11b/g, Wi-Fi Direct, SoftAP, WPS	Wi-Fi Connection Manager, Announce, DNS, DDNS, DHCP, FTP, HTTP, NBNS, SNMP, SNTP, SSL, TCP, UDP, ZeroConf(2)	WPA2-PSK, WPA-PSK, WEP, WPA2-ENTERPRISE	4-wire SPI	$26.90	36/Module
RN131	44	2.412–2.484	–85	18	Yes	210 (+18 dBm)	40	44 MHz	4 µA	Yes	802.11b/g, SoftAP, WPS, Webscan	DHCP, DNS, ARP, ICMP, FTP client, HTTP client, TCP, UDP	WEP, WPA, WPA2, EAP	UART, SPI Slave	$30.55	44/Module
IEEE 802.15.4 Transceivers/Modules																
MRF24J40	40	2.405–2.48	–95	0	Yes	23	19	20 MHz	2 µA	Yes	CSMA-CA	ZigBee® , MiWi™ wireless networking protocol	AES128	4-wire SPI	$2.36	40/QFN
MRF24J40MA	12	2.405–2.48	–95	0	Yes	23	19	20 MHz	2 µA	Yes	CSMA-CA	ZigBee, MiWi wireless networking protocol	AES128	4-wire SPI	$6.09	12/Module
MRF24J40MB	12	2.405–2.48	–102	20	Yes	130	25	20 MHz	5 µA	Yes	CSMA-CA	ZigBee, MiWi wireless networking protocol	AES128	4-wire SPI	$13.12	12/Module
MRF24J40MC	12	2.405–2.48	–108	20	Yes	120	25	20 MHz	12 µA	Yes	CSMA-CA	ZigBee, MiWi wireless networking protocol	AES128	4-wire SPI	$13.12	12/Module
MRF24XA	32	2.405–2.48	–103	0	Yes	25	13.5	16 MHz	0.04 mA	Yes	CSMA-CA	ZigBee, MiWi wireless networking protocol	AES128	4-wire SPI	$1.80	32/QFN

1. Indicates "off" current for sleep column.
2. Supported in the provided stack.

WIRELESS PRODUCTS

Product	Pin Count	Frequency Range (GHz)	Sensitivity (dBm)	Power Output (dBm)	Power Consumption	Sleep	MAC	Profiles	Interface	Volume Pricing†	Packages
Bluetooth®											
RN42	35	2.4 to 2.48	–80	4	Standby/Idle 25 mA, Connected (normal mode) 3 mA, Connected (low power sniff) 8 mA	Standby/Idle (deep sleep enabled) 26 µA	Yes	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB, Bluetooth®	$14.56	35/Module
RN41	35	2.4 to 2.48	–80	15	Standby/Idle 25 mA, Connected (normal mode) 30 mA, Connected (low power sniff) 8 mA	Standby/Idle (deep sleep enabled) 250 µA	Yes	SPP, DUN, HID, iAP, HCI, RFCOMM, L2CAP, SDP	UART, USB, Bluetooth	$20.36	35/Module
RN52	50	2.4 to 2.48	-85	4	Idle 12 mA, Connected A2DP 26 mA, HFP/HSP 23.5 mA	N/A	Yes	A2DP, AVRCP, SPP, HFP/HSP, iAP	(Audio) Analog speaker, microphone, I²S™ master mode, S/PDIF, (Data) UART, USB, GPIO	$17.36	50/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	0.3 µA	4-wire SPI	$1.71	16/TSSOP
MRF89XA	32	868/915/950	–113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	$1.76	32/TQFN
MRF89XAM8A	12	868	–113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	$5.20	12/Module
MRF89XAM9A	12	915	–113	12.5	Yes	25 mA @ 0 dBm	3	12.8 MHz	0.1 µA	4-wire SPI	$5.20	12/Module

rfPIC® Transmitters + PIC® MCUs

Product	I/O Pins	Frequency Range (MHz)	Program Memory (Bytes)	EEPROM (bytes)	RAM (bytes)	Digital Timer	Watch Dog Timer	Max. Speed (MHz)	ICSP™	Modulation	Data Rate (kbps)	Output Power (dBm)	Operating Voltage	Volume Pricing†	Packages
PIC12F529T48A	6	418–868	2.3K	64	201	1	1	8	Yes	OOK/FSK	100	10	2.0–3.7	$0.85	14/TSSOP
PIC12F529T39A	6	310–928	2.3K	64	201	1	1	8	Yes	OOK/FSK	100	10	2.0–3.7	$0.95	14/TSSOP
PIC12LF1840T48A	6	418–868	7.1K	256	256	2	1	32	Yes	OOK/FSK	100	10	1.8–3.6	$1.12	14/TSSOP
PIC12LF1840T39A	6	310–928	7.1K	256	256	2	1	32	Yes	OOK/FSK	100	10	1.8–3.6	$1.27	14/TSSOP
PIC16LF1824T39A	20	310–928	4K	256	256	1	1	32	Yes	OOK/FSK	100	10	1.8–3.6	$1.41	20/TSSOP
rfPIC12F675F	6	380–450	1.7K	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0–5.5	$2.11	20/SSOP
rfPIC12F675H	6	850–930	1.7K	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0–5.5	$2.11	20/SSOP
rfPIC12F675K	6	290–350	1.7K	128	64	1	1	20	Yes	ASK/FSK	40	10	2.0–5.5	$2.11	20/SSOP

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

USB

Product	Description	Processor Interface	# of Downstream Ports	Card Formats	Industrial Version	Package
USB Hub Controllers						
USB2412	2-Port USB 2.0 Hi-Speed Hub	USB 2.0	2	N/A	–	28-pin QFN
USB2422	Small-footprint, 2-Port value hub, Commercial and Industrial Temperature with USB Battery Charging 1.1	USB 2.0	2	N/A	✓	24-pin QFN
USB251XB	USB2.0 Hi-Speed Hub w/Battery Charger Detection	USB 2.0	2, 3, 4, 7 port options	N/A	✓	36- or 64-pin QFN
USB2524	4-Port USB 2.0 Hi-Speed Multi-Switch Hub	USB 2.0 x 2	4	N/A	–	56-pin QFN
USB3503A	3-Port USB 2.0 Hi-Speed HSIC Hub for Mobile Applications	HSIC	3	N/A	✓	25-ball WLCSP
USB3803B	3-Port USB 2.0 Hi-Speed Hub for Mobile Applications	USB 2.0	3	N/A	✓	25-ball WLCSP
USB553XB	USB 3.0 SuperSpeed Hub w/Battery Charger Detection	USB 3.0	4, 7 port options	N/A	✓	64- or 72-pin QFN
USB3X13	3-Port USB 2.0 Hi-Speed Controller Hub for Mobile Applications	USB 2.0 or HSIC	3 (USB 2.0 x2; HSIC x1)	N/A	✓	30-ball WLCSP
USB253X	USB 2.0 Hi-Speed Controller Hub w/Battery Charger Detection	USB 2.0	2, 3, 4 port options	N/A	✓	36-pin QFN
USB46X4	USB 2.0 Hi-Speed Controller Hub w/USB and HSIC Interfaces	USB 2.0 or HSIC	4 (USB 2.0 x4 or USB 2.0 x2/HSIC x2)	N/A	✓	48-pin QFN
USB Transceivers/Switches						
USB333X	Mobile Hi-Speed USB 2.0 Transceiver with Multi-frequency Support	ULPI	–	–	✓	25-ball WLCSP
USB3340	Hi-Speed USB 2.0 Transceiver with Multi-frequency Support	ULPI	–	–	✓	24- or 32-pin QFN
USB3300	Hi-Speed USB 2.0 Transceiver (24 MHz reference clock support)	ULPI	–	–	✓	32-pin QFN
USB3740B	Hi-Speed USB 2.0 Switch with Extremely Low Power	USB 2.0	–	–	✓	10-pin QFN
USB375XA-X	Hi-Speed USB 2.0 Port Protection with Switch and Charger Detection	USB 2.0	–	–	✓	16-pin QFN
USB Flash Media Controllers						
USB224X	Hi-Speed USB 2.0 Multi-Format Flash Media Controller	USB 2.0	–	SD™/MMC/eMMC™/MS/xD	✓	36-pin QFN
USB225X	Hi-Speed USB 2.0 Multi-Format Flash Media Controller	USB 2.0	–	SD/MMC/eMMC/MS/xD/CF	✓	128-pin VTQFP
USB260X	Hi-Speed USB 2.0 Multi-Format Flash Media Hub Controller with Card Power	USB 2.0	3	SD/MMC/eMMC/MS/CF	–	128-pin VTQFP
USB264X	Hi-Speed USB 2.0 Multi-Format Flash Media Hub Controller	USB 2.0	2	SD/MMC/eMMC/MS/xD	✓	48-pin QFN
USB2660	Hi-Speed USB 2.0 Multi-Format Flash Media Hub Controller	USB 2.0	2	SD/MMC/eMMC/MS/xD (x2)	✓	64-pin QFN
USB4640	Hi-Speed USB 2.0 Multi-Format Flash Media HSIC Hub Controller	HSIC	2	SD/MMC/eMMC/MS/xD	✓	48-pin QFN

ETHERNET

Product	Description	Interface (Upstream)	Wake-on-LAN	EEE	Industrial Version	Packages
Ethernet Controllers						
ENC28J60	10Base-T Ethernet Controller	SPI	–	–	✓	28-pin SPDIP, SSOP, SOIC, QFN
ENC624J600	10Base-T/100Base-TX Ethernet Controller with Security	SPI, Parallel	–	–	✓	24-pin TQFN, QFN, 64-pin TQFN
LAN9217	10Base-T/100Base-TX Ethernet Controller with 16-bit/MII Interface	16-bit Host Bus, MII	–	–	–	100-pin TQFP
LAN9218	10Base-T/100Base-TX Ethernet Controller with 32-bit Interface	32-bit Host Bus	–	–	✓	100-pin TQFP
LAN9220	10Base-T/100Base-TX Ethernet Controller with 16-bit Interface	16-bit Host Bus	–	–	–	56-pin QFN
LAN9221	10Base-T/100Base-TX Ethernet Controller with 16-bit Interface	16-bit Host Bus	–	–	✓	56-pin QFN
LAN9420	10Base-T/100Base-TX Ethernet Controller with 32-bit PCI Interface	32-bit PCI 3.0	–	–	✓	128-pin VTQFP
Ethernet Switches						
LAN9303	10/100 3-port Managed Ethernet Switches	MII/RMII/Turbo MII	–	–	✓	56-pin QFN
LAN9303M	10/100 3-port Managed Ethernet Switches	MII/RMII/Turbo MII	–	–	✓	72-pin QFN
LAN9311	10/100 2-port Managed Ethernet Switches with Local Bus Interface	16-bit Host Bus	–	–	✓	128-pin VTQFP, XVTQFP
LAN9312	10/100 2-port Managed Ethernet Switches with Local Bus Interface	32-bit Host Bus	–	–	–	128-pin VTQFP, XVTQFP
LAN9313	10/100 3-port Managed Ethernet Switches	MII/RMII/Turbo MII	–	–	✓	128-pin VTQFP, XVTQFP
USB to Ethernet						
LAN9500A	USB 2.0 to 10/100 Ethernet Controllers	USB 2.0	–	–	✓	56-pin QFN
LAN9730	USB HSIC 2.0 to 10/100 Ethernet Controllers	USB 2.0 (HSIC), MII	–	–	✓	56-pin QFN
LAN7500	USB 2.0 to 10/100/1000 Ethernet Controllers	USB 2.0	–	–	✓	56-pin QFN
LAN9512	USB 2.0 to 10/100 Ethernet Controllers with 2-port USB 2.0 Hub	USB 2.0	–	–	✓	64-pin QFN
LAN9513	USB 2.0 to 10/100 Ethernet Controllers with 3-port USB 2.0 Hub	USB 2.0	–	–	✓	64-pin QFN
LAN9514	USB 2.0 to 10/100 Ethernet Controllers with 4-port USB 2.0 Hub	USB 2.0	–	–	✓	64-pin QFN
Ethernet Transceivers						
LAN8710A	Small Footprint, Low Power Consumption, Full-Featured 10/100 Ethernet Transceivers	MII/RMII	–	–	✓	32-pin QFN
LAN8720A	Small Footprint, Low Power Consumption, Full-Featured 10/100 Ethernet Transceivers	RMII	–	–	✓	24-pin QFN
LAN8740A	Small-Footprint, 10/100 PHY Family Featuring Energy Efficient Ethernet and Wake-On-LAN	MII/RMII	✓	✓	✓	32-pin QFN
LAN8741A	Small-Footprint, 10/100 PHY Family Featuring Energy Efficient Ethernet	MII/RMII	–	✓	✓	32-pin QFN
LAN8742A	Small-Footprint, 10/100 PHY Family Featuring Wake-On-LAN	RMII	✓	–	✓	24-pin QFN
LAN8810	GMII 10/100/1000 Ethernet Transceiver with HP Auto-MDIX Support	GMII	–	–	✓	72-pin QFN
LAN8820	RGMII 10/100/1000 Ethernet Transciever with HP Auto-MDIX Support	RGMII	–	–	✓	56-pin QFN

*Note: All products above are supported with 3.3V operating voltage

AUTOMOTIVE: MOST® (Media Oriented Systems Transport) Network Inferface Controllers

Intelligent Network Interface Controller (INIC) for MOST Networks

Product	Features	Interface	Temperature Range	Pin	Packages
OS81110 INIC	Fully-encapsulated, single-chip, embedded network management, supports MOST embedded Ethernet channel and isochronous channels (MOST150)	MOST150 FOT or MOST150 coax transceiver, I²C™, I²S™/SPDIF, TSI, SPI, MediaLB®	–40° to 105°C	48	QFN
OS81082 INIC	Fully-encapsulated, single-chip, embedded network management (MOST50)	MOST50 electrical (UTP), I²C, I²S, MediaLB	–40° to 95°C	64	ETQFP
OS81092 INIC	ROM version of OS81082 INIC (MOST50)	MOST50 electrical (UTP), I²C, I²S, MediaLB	–40° to 105°C	48	QFN
OS81050 INIC	Fully-encapsulated, single-chip with embedded network management (MOST25)	MOST25 FOT, I²C, I²S, MediaLB	Standard range: –40° to 85°C Extended range: –40° to 105°C	44	QFP, ETQFP
OS81060 INIC	ROM version of OS81050 INIC (MOST25)	MOST25 FOT, I²C, I²S, MediaLB	–40° to 105°C (targeted)	40	QFN

AUTOMOTIVE: Power Management Companion
For Diagnostics, Staus Monitoring and Power Supply

Product	Features	Interface	Temperature Range	Pin	Packages
MPM85000	Power management companion for diagnostics, status monitoring and power supply	LIN 2.0, I²C™	–40° to 105°C	24	QFN

AUTOMOTIVE: Multimedia I/O Companion
Multimedia I/O Port Expander

Product	Features	Interface	Temperature Range	Pin	Packages
OS85650	Low-cost multimedia I/O port expander, DTCP co-processor	MediaLB 3-pin and 6-pin, Host Bus Interface (HBI), 2 × multi-channel streaming ports, 2 × TSI, 2 × SPI, I²C™	–40° to 105°C	128	ETQFP
OS85652	Low-cost multimedia I/O port expander	MediaLB 3-pin and 6-pin, Host Bus Interface (HBI), 2 × multi-channel streaming ports, 2 × TSI, 2 × SPI, I²C	–40° to 105°C	128	ETQFP
OS85656	Low-cost multimedia I/O port expander well-suited for streaming applications	MediaLB 3-pin, streaming port I²S™ (FSYN, FCLK, 4 × IN, 4 × Out, @ 512 Fs), serial transport stream interface (TSI), I²C	–40° to 105°C	48	QFN
OS85654	Low-cost multimedia I/O port expander well-suited for streaming applications, DTCP co-processor	MediaLB 3-pin, streaming port I²S (FSYN, FCLK, 4 × IN, 4 × Out, @ 512 Fs), serial transport stream interface (TSI), I²C	–40° to 105°C	48	QFN

AUTOMOTIVE: Ethernet Controllers
10/100 Ethernet Controllers with USB 2.0, HSIC or HBI

Product	Features	Interface	Temperature Range	Pin	Packages
LAN89218	High-performance, single-chip controller with HP Auto-MDIX support*	MAC/PHY, 10Base-T/100Base-TX, 32- and 16-bit Host Bus Interface (HBI)	–40° to 85°C	100	TQFP
LAN89530	Hi-Speed USB 2.0 to 10/100 Ethernet controller	USB 2.0	–40° to 85°C	56	QFN

*HP Auto MDIX eliminates the need for special "crossover" cables when connecting LAN devices together.

AUTOMOTIVE: Ethernet Switch
10/100 Managed Ethernet Switch with HP Auto-MDIX Support

Product	Features	Interface	Temperature Range	Ports	Pin	Packages
LAN89303	High-performance, small-footprint, full-featured, single MII/RMII/Turbo MII support	MII/RMII, 2 × 10/100 PHYs, 3 × 10/100 MACs	–40° to 85°C	4	56	QFN

AUTOMOTIVE: Ethernet Transceiver
10/100 Ethernet Transceiver with HP Auto-MDIX Support*, Featuring flexPWR® Technology

Product	Features	Interface	Temperature Range	Pin	Packages
LAN88730	Small-footprint, low-power consumption, full-featured	10Base-T/100Base-TX, MII/RMII	LAN88730AM: –40° to 85°C LAN88730BM: –40° to 105°C	32	QFN

*HP Auto MDIX eliminates the need for special "crossover" cables when connecting LAN devices together.

AUTOMOTIVE: Hi-Speed USB 2.0 Hub
USB 2.0 Hub Featuring MultiTRAK™ Technology

Product	Features	Interface	Temperature Range	Ports	Pin	Packages
USB82512	Versatile, cost-effective, energy-efficient, incorporating MultiTRAK™, PortMap, PortSwap, PHYBoost technologies	SMBus/I²C™	–40° to 85°C	2	36	QFN
USB82513	Versatile, cost-effective, energy-efficient, incorporating MultiTRAK, PortMap, PortSwap, PHYBoost technologies	SMBus/I²C	–40° to 85°C	3	36	QFN
USB82514	Versatile, cost-effective, energy-efficient, incorporating MultiTRAK, PortMap, PortSwap, PHYBoost technologies	SMBus/I²C	–40° to 85°C	4	36	QFN

AUTOMOTIVE: Hi-Speed USB 2.0 Hub and Flash Media Card Controllers
USB 2.0 Hub and Card Controller Combos

Product	Features	Socket Type	Supports	Temperature Range	USB Ports	Pin	Packages
USB82640	Features PortMap, PortSwap and PHYBoost technologies	Single	SD™/SD High Capacity™/MultiMediaCard™/Memory Stick®/MS PRO™, MS PRO-HG™	–40° to 85°C	2	48	QFN
USB82642	USB bridge/card reader combo with USB to SDIO and USB to I²C™ bridging functionality and PortMap, PortSwap and PHYBoost technologies	Single	SD/SD High Capacity/MultiMediaCard/Memory Stick/MS PRO, MS PRO-HG	–40° to 85°C	2	48	QFN

AUTOMOTIVE: Hi-Speed USB 2.0 Transceiver
USB 2.0 Transceiver with 1.8V ULPI Interface

Product	Features	Interface	Temperature Range	Ports	Pin	Packages
USB83340	Multi-frequency reference clock	1.8V to 3.3V ULPI	–40° to 105°C	1	32	QFN

AUTOMOTIVE: Hi-Speed USB 2.0 Battery Charger

Standalone USB Battery Charger

Product	Features	Temperature Range	Supports	Pin	Packages
UCS81001	USB battery charger supporting BC1.2, China charging, Apple® and RIM® charging profiles as well as programmable charging profiles for unforeseen peripherals	–40° to 85°C	USB, I²C™, SMBus	28	QFN
UCS81002	USB battery charger supporting BC1.2, China charging, Apple and RIM charging profiles as well as programmable charging profiles for unforeseen peripherals	–40° to 85°C	USB, I²C, SMBus	28	QFN

AUTOMOTIVE: Wireless Audio

Radio Frequency Digital Audio Transceiver

Product	Features	Typical Sink Mode Power Consumption	PA Output Power	Audio	Qualification
KLR83012	Wirelessly streams uncompressed lossless audio up to 25m over robust 2.4 GHz radio link, multi-point to multi-point connectivity, strong Wi-Fi® coexistence, data channel for audio playback control, very low power consumption	20 mW	1.5 dBm	16 bit, 44.1 Ks/s stereo	AEC Q100

AUTOMOTIVE: Capacitive Touch Sensors

Product	Features	Input Channels	LED Drivers	Proximity Included	Interface	Pin	Packages
CAP81188	Reset, wake and alert, automatic recalibration, base capacitance compensation	8	8	✓	I²C™/SPI/SMSC BC-Link™	24	QFN

PC SYSTEM & I/O CONTROLLERS: Notebook PC Products

Embedded Controller and I/O Devices for Notebook PC Platforms

Product	Features	I/O Ports	System Interface	Pin	Packages
MEC1621	32-bit embedded controller with 192K bytes embedded flash, 1K bytes EEPROM, 16K bytes SRAM, ADC, temp sensing, connected standby support	3 PS/2, 3 SMBus, 2 SPI, 16 PWM, 6 tachs, 1 serial (2-pin), 16 ADC channels, 4 temp inputs, 3 LED, 1 HDMI-CEC, 146 GPIOs, 3 SMSC BC-Link™	LPC/SMBus	176/225	LFBGA, LFBGA
MEC1620	32-bit embedded controller with 192K bytes embedded flash, 1K bytes EEPROM, 16K bytes SRAM, ADC, connected standby support	3 PS/2, 3 SMBus, 2 SPI, 16 PWM, 6 tachs, 1 serial (2-pin), 16 ADC channels, 3 LED, 1 HDMI-CEC, 153 GPIOs, 3 SMSC BC-Link	LPC/SMBus	176	LFBGA, LFBGA
MEC1308	8-bit embedded controller with 64K bytes SRAM, SPI Flash Memory Interface, ADC, Consumer IR, SMSC BC-Link technology	4 PS/2, 2 SMBus, 4 PWMs, 2 tachs, 1 serial (2-pin), 55 GPIOs, RC-6 CIR, 1 SMSC BC-Link	LPC/SMBus	128/144	VTQFP, TFBGA
MEC1312	8-bit embedded controller with 96K bytes SRAM, SPI Flash Memory Interface, PECI, ADC, PID Fan Control, SMSC BC-Link technology	4 PS/2, 3 SMBus, PECI, 4 PWMs, 2 tachs, 1 serial (2-pin), 63 GPIOs, 1 SMSC BC-Link	LPC/SMBus	128	VTQFP
SIO1028	Super I/O controller, small form factor package	3 serial, 24 GPIOs	LPC	64	QFN
LPC47N217	Super I/O controller for notebook and embedded PC applications	1 serial, 1 parallel, 14 GPIOs, IrDA® , CIR	LPC	64/56	STQFP
LPC47N217N	Super I/O controller for notebook and embedded PC applications	1 serial, 1 parallel, 14 GPIOs	LPC	64/56	STQFP, QFN
ECE1088	GPIO expander with SMSC BC-Link technology	20 GPIOs	SMBus or SMSC BC-Link	28	QFN
ECE1099	GPIO expander with Keyscan and SMSC BC-Link technology	32 GPIOs, 23:8 Keyscan	SMBus or SMSC BC-Link	40	QFN
ECE1105	GPIO expander with Keyscan, PS/2 and SMSC BC-Link technology	40 GPIOs, 23:8 Keyscan, 2 PS/2	SMBus or SMSC BC-Link	48	QFN

PC SYSTEM & I/O CONTROLLERS: Desktop PC Products

Embedded Controller and Highly-Integrated Super I/O Devices for Desktop PC Platforms

Product	Features	I/O Ports	System Interface	Pin	Packages
SCH5636	Desktop embedded controller, embedded SRAM for custom applications, closed-loop fan control, PECI 3.0 support, temperature and voltage monitoring	FDC, parallel, 2 serial, 8042 KB controller, 2 SMBus, 4 PWMs, 4 tachs, 60 GPIOs	LPC	128	QFP
SCH5627	Desktop embedded controller, SMBus master for PCH temperature support, PECI 3.0 support, voltage monitoring	FDC, parallel, 2 serial, 8042 KB controller, 2 SMBus, 4 PWMs, 4 tachs, 60 GPIOs	LPC	128	QFP
SCH5627P	Desktop embedded controller with "XLS5" power savings mode, SMBus master for PCH temperature support, PECI 3.0 support and voltage monitoring	FDC, parallel, 2 serial, 8042 KB controller, 2 SMBus, 4 PWMs, 4 tachs, 60 GPIOs	LPC	128	QFP
SCH5147	Super I/O controller, LPC hardware monitoring, PECI support, voltage monitoring	FDC, parallel, 2 serial, 8042 KB controller, 2 SMBus, 3 PWMs, 3 tachs, 29 GPIOs	LPC	128	QFP

PC SYSTEM & I/O CONTROLLERS: Server/Workstation Products

Embedded Controller and Super I/O Devices for Server and Workstation PC Platforms

Product	Features	I/O Ports	System Interface	Pin	Packages
SCH4304	Super I/O controller, X-Bus interface, RTC and auto fan control over SensorBus™ sensor interface	FDC, parallel, 2 serial, 8042 KB controller, SMBus, 3 PWMs, 8 tachs, 51 GPIOs	LPC	128	QFP

PC SYSTEM & I/O CONTROLLERS: Embedded I/O Products

Highly-Integrated Super I/O Devices with Long Product Lifecycles for Embedded PC Platforms

Product	Features	I/O Ports	System Interface	Pin	Packages
SCH3112	Super I/O controller with SMBus hardware and voltage monitoring	2 serial, parallel, FDC, 8042 KB controller, 40 GPIOs	LPC	128	VTQFP
SCH3114	Super I/O controller with SMBus hardware and voltage monitoring	4 serial, parallel, FDC, 8042 KB controller, 40 GPIOs	LPC	128	VTQFP
SCH3116	Super I/O controller with SMBus hardware and voltage monitoring	6 serial, parallel, FDC, 8042 KB controller, 40 GPIOs	LPC	128	VTQFP
LPC47M10X	Super I/O controller, full legacy I/O support	2 serial ports, parallel, 8042 KB controller, FDC, 37 GPIOs	LPC	100	QFP
SIO10N268	Super I/O controller for ISA or LPC designs, X-Bus interface for I/O memory and FWH emulation	4 serial ports, parallel, FDC, WDT, 33 GPIOs	LPC/ISA	128	VTQFP
FDC37B78X	Super I/O controller, real-time clock, consumer IR, watchdog timer, 5V operation	2 serial ports, parallel, FDC, 8042 KB controller, parallel IRQs, serial IRQs, 20 GPIOs	ISA	128	QFP

CAPACITIVE TOUCH SENSORS

Product	Input Channels	LED Drivers	Additional Features	Proximity Included	Interface	Pin	Packages
CAP1114	14	11	Slider, reset and alert, automatic recalibration, base capacitance compensation	✓	I²C™/SMBus	32	QFN
CAP1188	8	8	Reset, wake and alert, automatic recalibration, base capacitance compensation	✓	I²C/SPI/SMSC BC-Link™	24	QFN
CAP1128	8	2	Reset, wake and alert, automatic recalibration, base capacitance compensation	✓	I²C/SPI/SMSC BC-Link	20	QFN
CAP1166	6	6	Reset, wake and alert, automatic recalibration, base capacitance compensation	✓	I²C/SPI/SMSC BC-Link	20	QFN
CAP1126	6	2	Reset, wake and alert, automatic recalibration, base capacitance compensation	✓	I²C/SPI/SMSC BC-Link	16	QFN
CAP1133	3	3	Alert, automatic recalibration, base capacitance compensation	✓	I²C/SMBus	10	DFN
CAP1106	6	0	Alert, automatic recalibration, base capacitance compensation	✓	I²C/SMSC BC-Link	10	DFN
CAP1105	5	0	Automatic recalibration, base capacitance compensation	✓	SPI	10	DFN
CAP1214	14	11	Slider, reset and alert, automatic recalibration, base capacitance compensation, audio output	✓	I²C/SMBus	32	QFN

WIRELESS AUDIO: Highly Integrated Wireless Audio Baseband Processors

Product	Additional Features	Frequency	Interface	Pin	Packages
DARR82	Supports streaming of four wireless uncompressed stereo audio channels simutaneously or complete wireless 7.1 channel surround sound system, latency < 20 ms, point-to-multi-point transmission in home audio networking, SD and HD audio, excellent Wi-Fi® and Bluetooth® coexistence, bi-directional audio support, control data channel up to 100 kbps, integrated MCU and SRC	Dual-band 2.4/5.8GHz	I²S, S/PDIF, I²C™, SPI	80	LQFP
DARR83	Supports streaming of four wireless uncompressed stereo audio channels simutaneously or complete wireless 7.1 channel surround sound system, latency < 20 ms, point-to-multi-point transmission in home audio networking, SD and HD audio, excellent Wi-Fi and Bluetooth coexistence, bi-directional audio support, control data channel up to 100 kbps, integrated MCU and SRC, integrated audio class USB	Tri-band 2.4/5.2/5.8GHz	I²S, S/PDIF, I²C, SPI, USB 2.0	129	FBGA
DARR84	Supports streaming of two wireless uncompressed stereo audio channels simultaneously, supports a microphone input for voice applications, latency < 20 ms, point-to-multi-point transmission, SD and HD audio, excellent Wi-Fi and Bluetooth coexistence using Wireless DNA™ technology, control data channel up to 100 kbps, integrated MCU and SRC, integrated codec and headphone amplifier for headset applications	Tri-band 2.4/5.2/5.8GHz	I²S, S/PDIF, I²C, SPI/Analog In	129	FBGA
DM870A	Networked media processor, highly-flexible interface processor well-suited for secure, real time encoding/decoding and processing of multi-channel media content, offering industry standard networking and I/O interfaces, enables rapid product development by OEMs and ODMs, API structure on the software packages allows for easy product customization resulting in a faster time to market.	2.4GHz, 802.11 b/g	I²S, S/PDIF, I²C, USB, SD/SDIO, Ethernet, TFT for Display, SPI, CCIR 656 out	320	LFBGA
DM875	Reduced feature set version of the DM870A with no LCD and video output capability, well-suited for customer applications that support standard software AirPlay® software package	2.4GHz, 802.11 b/g	I²S, S/PDIF, I²C, USB, SD/SDIO, Ethernet, SPI,	320	LFBGA
DM860A	Available as an alternative to DM870A with no Wi-Fi capability.	–	I²S, S/PDIF, I²C, USB, SD/SDIO, Ethernet, TFT for Display, SPI, CCIR 656 out	320	LFBGA

WIRELESS AUDIO: Reference Designs

Product	Features	Frequency	Interface	Pin	Module Dimensions
DWAM82	Uncompressed wireless digital audio transceiver OEM modules based on the DARR82 and DARR83 chipsets, supports up to four stereo audio streams, data encryption, bi-directional control messaging, automatic pairing, WLAN detection, automatic frequency allocation	Single-band, 5.8 GHz	I²S, S/PDIF, I²C™ ,SPI	26-pin FFC Connector	42 × 42 mm Square PCB
DWAM83	Uncompressed wireless digital audio transceiver OEM modules based on the DARR82 and DARR83 chipsets, supports up to four stereo audio streams, data encryption, bi-directional control messaging, automatic pairing, WLAN detection, automatic frequency allocation	Tri-band, 2.4/5.2/5.8 GHz	I²S, S/PDIF, I²C, SPI	26-pin FFC Connector	35 × 35 mm Square PCB
DWUSB83	Uncompressed wireless digital audio transceiver OEM modules based on the DARR82 and DARR83 chipsets, supports up to four stereo audio streams, data encryption, bi-directional control messaging, automatic pairing, WLAN detection, automatic frequency allocation	Tri-band, 2.4/5.2/5.8 GHz	USB	–	49 × 18 mm
DWPCIE83	Uncompressed wireless digital audio transceiver OEM module based on the DARR82 chip, supports up to two stereo audio streams, data encryption, bi-directional control messaging, automatic pairing, WLAN detection, automatic frequency allocation, well-suited for receiver applications such as speakers	Tri-band, 2.4/5.2/5.8 GHz	USB	–	30 × 26.8 mm
LCOS82	Uncompressed wireless digital audio transceiver OEM module based on the DARR82 chip, supports up to two stereo audio streams, data encryption, bi-directional control messaging, automatic pairing, WLAN detection, automatic frequency allocation, well-suited for receiver applications such as speakers	Single-band, 2.4 GHz	I²S, S/PDIF, I²C, SPI	26-pin Pin Header Connector	30 × 50 mm Rectangle

WIRELESS AUDIO: Highly-Integrated Wireless Audio Modules

Product	Features	Frequency	Interface	Pin	Module Dimensions
DWHS84	Uncompressed wireless digital audio ready-to-go headset and headphone application reference design that supports audio and microphone inputs to process gaming and VOIP headsets/ headphone applications, supports multiple RF bands making it well-suited to effectively manage the interference commonly associated with Wi-Fi®, Bluetooth® and microwave ovens, using our Wireless DNA™ architecture, integrates 1MB SPI Flash, enabling KleerNet™ interoperability platform which allows for connectivity across products and brands	Tri-band 2.4/5.2/5.8 GHz	I²S, S/PDIF, I²C™, SPI	–	54 x 54.5 mm
DWLC84	Uncompressed wireless digital audio transceiver OEM module based on the DARR84 chip, supports up to two stereo audio streams, data encryption, bi-directional control messaging, automatic pairing, WLAN detection, excellent Wi-Fi and Bluetooth coexistence using Wireless DNA architecture, well-suited for applications such as speakers and soundbars with subwoofers	Tri-band 2.4/5.2/5.8 GHz	I²S, S/PDIF, I²C, SPI	–	30 x 42 mm
CX870	Single-board, networked, media player module based on the DM870A media processors, enables fast product developments with Ethernet, USB and Wi-Fi connectivity, connects to standard legacy components in various audio, video/LCD and control formats.	2.4GHz, 802.11 b/g	I²S, S/PDIF, I²C, USB, SD/SDIO, Ethernet, TFT for Display, SPI, CCIR 656 out	64-pin PCB Low Density Connector	46 x 85.8 mm

WIRELESS AUDIO: Radio Frequency Digital Audio Transceivers

Product	Features	Typical Sink Mode Power Consumption	PA Output Power	Audio	Qualification
KLR3012	Wirelessly streams uncompressed lossless audio up to 25m over robust 2.4 GHz radio link, multi-point to multi-point connectivity, strong Wi-Fi® coexistence, data channel for audio playback control, very low power consumption	20 mW	1.5 dBm	16 bit, 44.1 Ks/s stereo	JEDEC

SECURITY

Product	Description	Processor Interface	# of Downstream Ports	Card Formats	Industrial Version	Package
SEC11X0	Smart Card Controller	USB 2.0	–	–	–	16-pin QFN
SEC120X	Smart Card Controller with Multi-Interface Support	USB 2.0	–	–	–	24- or 48-pin QFN
SEC2410	Smart Card Flash Media Controller with AES Encryption	USB 2.0	–	SD x2/MMC	✓	64- or 72-pin QFN
SEC4410	Smart Card Flash Media Controller with AES Encryption	HSIC	–	SD x2/MMC	✓	64- or 72-pin QFN

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
CAN Controller Area Network
CCP/ECCP Capture Compare PWM/Enhanced Capture Compare PWM
CLC Configurable Logic Cell
COG Complementary Output Generator
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)
CWG Complementary Waveform Generator
DAC Digital-to-Analog Converter
DSM Data Signal Modulator
dsPIC® 16-bit Core with DSP
EBL Enhanced Baseline
EEPROM Electrically Erasable Programmable Read Only Memory
EFT Electrical Fast Transient
EMC Electromagnetic Compatibility
EMI Electromagnetic Interference
EMF/Enhanced Mid-Range 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
Inst Amp Instrumentation Amplifier
LCD Liquid Crystal Display
LDO Low Drop-Out voltage regulator
LF Low Power Flash
MI²C/I²C™ 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 (I²C & SPI Peripheral)
mTouch Proprietary Touch Sensing Technology
NCO Numerically Controlled Oscillator
Op Amp Operational Amplifier
PIC10/12/16/18 8-bit Core
PIC24 16-bit Core
PIC32 32-bit Core
PLVD Programmable Low Voltage Detect
POR/POOR Power ON Reset/Power ON/OFF Reset
PSMC Programmable Switch Mode Controller (16-bit PWM)
PWM Pulse Width Modulation
RAM Random Access Memory
RTCC Real-Time Clock Calendar
SMT 24-bit Signal Measurement Timer
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
WWDT Window Watch Dog Timer
XLP nanoWatt XLP eXtreme Low Power Technology
ZCD Zero Cross Detection

Product Packages

Small Outline

Bumped Die (WLCSP)

Die/Wafer (WLCSP)

3-lead SC70 (LB)

5-lead SC70 (LT)

3-lead SOT-23 (TT/CB)

5-lead SOT-23 (OT)

6-lead SOT-23 (OT/CH)

3-SOT-223 (DB)

4-lead SOT-143 (RC)

3-lead DDPAK (EB)

5-lead DDPAK (ET)

3-lead SOT-89

3-lead TO-92 (TO/ZB)

5-lead TO-220 (AT)

Dual Flat No Lead DFN

8-lead DFN (MC)
2 × 3 × 0.9 mm

8-lead TDFN (MN)
2 × 3 × 0.75 mm

8-lead UDFN (MU)
2 × 3 × 0.5 mm

8-lead DFN (MF)
3 × 3 × 0.9 mm

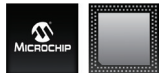
8-lead DFN (MD)
4 × 4 × 0.9 mm

8-lead DFN (MF)
6 × 5 × 0.9 mm

Very Thin Thermal Leadless Array VTLA

36-lead VTLA (TL)
5 × 5 × 0.9 mm

44-lead VTLA (TL)
6 × 6 × 0.9 mm



124-lead VTLA (TL)
9 × 9 × 0.9 mm

Quad Flat No Lead QFN

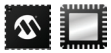
16-lead QFN (MG)
3 × 3 × 0.9 mm

20-lead QFN (ML)
4 × 4 × 0.9 mm

20-lead QFN (MQ)
5 × 5 × 0.9 mm

28-lead UQFN (MV)
4 × 4 × 0.5 mm

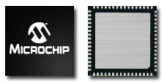
28-lead QFN (MQ)
5 × 5 × 0.9 mm



28-lead QFN (MM & ML)
6 × 6 × 0.9 mm

40-lead UQFN (MV)
5 × 5 × 0.5 mm

44-lead QFN (ML)
8 × 8 × 0.9 mm



64-lead QFN (MR)
9 × 9 × 0.9 mm

Plastic Shrink Small Outline SSOP

8-lead MSOP (MS)

10-lead MSOP (UN)

16-lead QSOP (QR)

20-lead SSOP (SS)

28-lead SSOP (SS)

Plastic Thin Shrink Small Outline TSSOP

8-lead TSSOP (ST)

14-lead TSSOP (ST)

20-lead TSSOP (ST)

Plastic Small Outline SOIC

8-lead SOIC (SN)

8-lead SOIC (SM)

14-lead SOIC (SL)

16-lead SOIC (SL)

18-lead SOIC (SO)

20-lead SOIC (SO)

28-lead SOIC (SO)

Packages are shown approximate size.
Additional packages are available: contact your local Microchip sales office for information.
For detailed dimensions, view our Package Drawing and Dimensions Specification at: www.microchip.com/packaging.

Product Packages

Plastic Thin Quad Flatpack TQFP

44-lead TQFP (PT)
10 × 10 × 1 mm

64-lead TQFP (PT)
10 × 10 × 1 mm

64-lead TQFP (PF)
14 × 14 × 1 mm

80-lead TQFP (PT)
12 × 12 × 1 mm

80-lead TQFP (PF)
14 × 14 × 1 mm

100-lead TQFP (PT)
12 × 12 × 1 mm

100-lead TQFP (PF)
14 × 14 × 1 mm

144-lead TQFP (PH)
16 × 16 × 1 mm

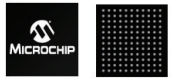
Plastic Quad Flatpack QFP

32-lead LQFP (LQ)
7 × 7 × 1.4 mm

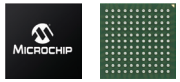
44-lead MQFP (PQ)
10 × 10 × 2 mm

144-lead LQFP (PL)
20 × 20 × 1.4 mm

Ball Grid Array BGA



100-ball BGA (BG)
10 × 10 × 1.1 mm



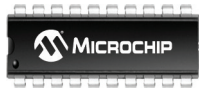
121-ball BGA (BG)
10 × 10 × 0.8 mm

Plastic Dual In-Line PDIP

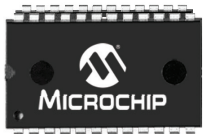
8-lead PDIP (P)

14-lead PDIP (P)

18-lead PDIP (P)

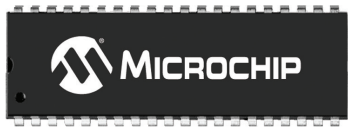


20-lead PDIP (P)



24-lead PDIP (P)

28-lead SPDIP (SP)



40-lead PDIP (P)

Additional Package Options

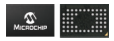
NOR Flash Memory

8-lead WSON (A6/QAE)
5 × 6 mm

32-lead PDIP (P2/PHE)
600 mil

32-lead PLCC (PE/NHE)
0.452" × 0.552"

40-lead TSOP (W8/EIE)
10 × 20 mm



48-lead WFBGA (3T/MAQE)
4 × 6 × 0.73 mm

48-lead TFBGA (8T/B3KE)
6 × 8 × 1.2 mm

48-lead TSOP (W9/EKE)
12 × 20 × 1.2 mm

RF Devices

6-lead XSON (QX/QX6E)
1.5 × 1.5 × 0.5 mm

8-lead XSON (Q7/QX8E)
2 × 2 × 0.5 mm

6-lead UQFN (QU/QU6E)
3 × 1.6 × 0.5 mm

16-lead LFLGA (MF/MLCF)
4 × 4 × 1.4 mm

8051-based Microcontrollers

44-lead PLCC (T2/NJE)
0.652" × 0.652"

Packages are shown approximate size.
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