

Type	Production	Memory				Timers				Serial Interfaces			Analog Feat.		I/O Pins	Interrupts (Ex)/Levels	Program Security	Core	External Bus	PLL	Reset active-low or -high?	Max. Freq. [MHz]	CPU Voltage	I/O Voltage	Temp. Range Options	Package Options	Comments / Special Features	Registerable? (NA only)			
<b>LPC2000</b> 16/32-bit ARM7TDMI-S		RAM	Flash	Sectors	Width	PP / ISP / IAP?	# of T. (incl. WD&RTC)	TOT1 Cap-ture inputs	TOT1 Match	PWM Timer (8-ch PWM)	UART	I <sup>2</sup> C	CAN	SPI	ADC(s) ch./bits	DAC(s) ch./bits	Analog Compar.														
<b>LPC2200 family:</b> The LPC2200 family is based on the ARM7TDMI-S core and offers an external bus interface with 4 Chip Selects, a bigger 144-pin package, up to 4 CAN channels as well as eight 10-bit ADC channels.																															
LPC2294	✓	16K	256K	32 x 8K	128-bit	-/Y/Y	4	8	8	✓	(✓)2	✓	(✓)4	(✓)2	8-ch / 10-bit	-	-	112	25(4)/16	✓	ARM7TDMI	4 CS	✓	L	60	1.8V	3.3V	J	LQFP144	LPC2214 upgrade w/ 4x CAN, -40 to 105C	✓
LPC2292	✓	16K	256K	32 x 8K	128-bit	-/Y/Y	4	8	8	✓	(✓)2	✓	(✓)2	(✓)2	8-ch / 10-bit	-	-	112	25(4)/16	✓	ARM7TDMI	4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	LPC2214 upgrade w/ 2x CAN	✓
LPC2290	✓	16K	-	-	-	-	4	8	8	✓	(✓)2	✓	(✓)2	(✓)2	8-ch / 10-bit	-	-	76	25(4)/16	N/A	ARM7TDMI	4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	ROMless version of LPC2292	✓
LPC2214	✓	16K	256K	32 x 8K	128-bit	-/Y/Y	4	8	8	✓	(✓)2	✓	-	(✓)2	8-ch / 10-bit	-	-	112	16(4)/16	✓	ARM7TDMI	4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	ARM7 in 144-pin package w/ External Bus, 4 Chip Selects, 10-bit SA ADC, 256K Flash; JTAG; ETM; 5V tol I/O; 0 WS exec. from int. Flash	✓
LPC2212	✓	16K	128K	16 x 8K	128-bit	-/Y/Y	4	8	8	✓	(✓)2	✓	-	(✓)2	8-ch / 10-bit	-	-	112	16(4)/16	✓	ARM7TDMI	4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	128K Flash version of LPC2214	✓
LPC2210	✓	16K	-	-	-	-	4	8	8	✓	(✓)2	✓	-	(✓)2	8-ch / 10-bit	-	-	76	16(4)/16	N/A	ARM7TDMI	4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	ROMless version of LPC2214	✓
<b>LPC2100 family:</b> The LPC2100 family is based on the ARM7TDMI-S core and offers 1.8V high-speed low-power zero-waitstate Flash, 60MHz operation, up to 4 CAN channels, up to four 10-bit ADC channels, on-chip Real-Time Monitor and Trace.																															
LPC2194	✓	16K	256K	32 x 8K	128-bit	-/Y/Y	4	8	8	✓	(✓)2	✓	(✓)4	(✓)2	4-ch / 10-bit	-	-	46	25(4)/16	✓	ARM7TDMI	-	✓	L	60	1.8V	3.3V	J	LQFP64	LPC21x4 upgrade w/ 4x CAN, -40 to +105C	✓
LPC2119/2129	✓	16K	128K/256K	16/32 x 8K	128-bit	-/Y/Y	4	8	8	✓	(✓)2	✓	(✓)2	(✓)2	4-ch / 10-bit	-	-	46	18(4)/16	✓	ARM7TDMI	-	✓	L	60	1.8V	3.3V	F	LQFP64	LPC21x4 upgrade w/ 2x CAN	✓
LPC2114/2124	✓	16K	128K/256K	16/32 x 8K	128-bit	-/Y/Y	4	8	8	✓	(✓)2	✓	-	(✓)2	4-ch / 10-bit	-	-	46	16(4)/16	✓	ARM7TDMI	-	✓	L	60	1.8V	3.3V	F	LQFP64	ARM7 in 64-pin package w/ 10-bit SA ADC, 2x SPI and 128K / 256K Flash; JTAG; ETM; 5V tol I/O; 0 WS exec. from int. Flash	✓
LPC2106	✓	64K	128K	16 x 8K	128-bit	-/Y/Y	4	7	7	✓	(✓)2	✓	-	✓	-	-	-	32	16(3)/16	-	ARM7TDMI	-	✓	L	60	1.8V	3.3V	B, F	LQFP48 HVQFN48	ARM7 in 48-pin package; 0 Waitstate exec. from int. Flash; no ext. bus; 5V tolerant I/O; with E-ICE (JTAG) debugging and ETM Trace Port	✓
LPC2105	✓	32K	128K	16 x 8K	128-bit	-/Y/Y	4	7	7	✓	(✓)2	✓	-	✓	-	-	-	32	16(3)/16	-	ARM7TDMI	-	✓	L	60	1.8V	3.3V	B	LQFP48	32K RAM version of LPC2106	✓
LPC2104	✓	16K	128K	16 x 8K	128-bit	-/Y/Y	4	7	7	✓	(✓)2	✓	-	✓	-	-	-	32	16(3)/16	-	ARM7TDMI	-	✓	L	60	1.8V	3.3V	B	LQFP48	16K RAM version of LPC2106	✓

Type	Production	Memory				Timers				Serial Interfaces			Analog Feat.		I/O Pins	Interrupts (Ex)/Levels	Program Security	Core	Default Clock Rate	Optional Clock Rate	Reset active-low or -high?	Max. Freq. at 2-clk [MHz]	Freq. Range at 3V [MHz]	Freq. Range at 5V [MHz]	Temp. Range Options	Package Options	Comments / Special Features	Registerable? (NA only)			
<b>LPC900</b> 2-clock 80C51 core: 167ns/Instr. @12MHz		RAM	EEPROM	Flash	ICP / PPP?	ISP / IAP?	Total # of Timers	PWM	RTC / Syst. Tmr.	WD	UART	I <sup>2</sup> C	CAN	SPI	ADC(s) ch./bits	DAC(s) ch./bits	Analog Compar.														
<b>LPC900 family:</b> The LPC900 family integrates a 2-clock core, 3V low-power byte-erasable Flash memory, data EEPROM as well as important analog and system functions, making it a complete single-chip solution for many embedded applications.																															
P89LPC935 <b>NEW</b>	✓	768B	512B	8K	Y / Y	Y / Y	5	CCU	✓	✓	✓	✓	✓	✓	4-ch / 8-bit	1-ch / 8-bit	(✓)2	26	15(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	PLCC28, TSSOP28, HVQFN28	LPC932A1 + two 4-ch 8-bit ADCs / two 8-bit DACs	✓
P89LPC933/934 <b>NEW</b>	✓	256B	48K	48K	Y / Y	Y / Y	4	2 ch.	✓	✓	✓	✓	✓	✓	4-ch / 8-bit	1-ch / 8-bit	(✓)2	26	15(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	TSSOP28	LPC930/931 + 4-ch 8-bit ADCs / two 8-bit DACs	✓
P89LPC932A1 <b>NEW</b>	✓	768B	512B	8K	Y / Y	Y / Y	5	CCU	✓	✓	✓	✓	✓	✓	-	-	(✓)2	26	15(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	PLCC28, TSSOP28, HVQFN28	Dedicated EEPROM: ± 2.5% int. RC Osc.(7.3728MHz), BOD, POR, 8KBI <sup>2</sup> , 2 analog comp., byte-erasable Flash	✓
P89LPC932	✓	768B	512B	8K	- / Y	Y / Y	5	CCU	✓	✓	✓	✓	✓	✓	-	-	(✓)2	26	15(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	B	TSSOP/PLCC/HVFN28	Use LPC932A1 for new designs (932A1 adds ICP, byte-erasable Flash).	✓
P89LPC930/931	✓	256B	48K	48K	Y / Y	Y / Y	4	2 ch.	✓	✓	✓	✓	✓	✓	-	-	(✓)2	26	13(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	TSSOP28	4K / 8K Flash versions of LPC932A1 w/o EEPROM, w/o CCU, w/o XRAM	✓
P89LPC924/925 <b>NEW</b>	✓	256B	48K	48K	Y / Y	Y / Y	4	2 ch.	✓	✓	✓	✓	✓	✓	4-ch / 8-bit	1-ch / 8-bit	(✓)2	18	12(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	TSSOP20 DIP20	LPC921/922 + 4-ch 8-bit ADC / 8-bit DAC	✓
P89LPC921/922	✓	256B	48K	48K	Y / Y	Y / Y	4	2 ch.	✓	✓	✓	✓	✓	✓	-	-	(✓)2	18	12(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	TSSOP20, DIP20	20-pin versions of LPC930/931 w/o SPI, LPC76x pin-comp. upgrade	✓
P89LPC920	✓	256B	2K	48K	Y / Y	Y / Y	4	2 ch.	✓	✓	✓	✓	✓	✓	-	-	(✓)2	18	12(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	TSSOP20, DIP20	2K Flash version of 921/922	✓
P89LPC917 <b>NEW</b>	✓	256B	2K	48K	Y / -	- / -	4	2 ch.	✓	✓	✓	✓	✓	✓	4-ch / 8-bit	1-ch / 8-bit	(✓)2	14	13(3)/4	✓	2clk51	2-clk	-	L	IRC / CLKIN	0-12	-	F	TSSOP16	4-ch 8-bit ADC / 8-bit DAC; 2 serial channels; 2-ch 8-bit PWM	✓
P89LPC916 <b>NEW</b>	✓	256B	2K	48K	Y / -	- / -	4	1 ch.	✓	✓	✓	✓	✓	✓	4-ch / 8-bit	1-ch / 8-bit	(✓)2	14	14(2)/4	✓	2clk51	2-clk	-	L	IRC / CLKIN	0-12	-	F	TSSOP16	4-ch 8-bit ADC / 8-bit DAC; 3 serial channels; 1-ch 8-bit PWM	✓
P89LPC915 <b>NEW</b>	✓	256B	2K	48K	Y / -	- / -	4	1 ch.	✓	✓	✓	✓	✓	✓	4-ch / 8-bit	1-ch / 8-bit	(✓)2	12	13(3)/4	✓	2clk51	2-clk	-	L	IRC / CLKIN	0-12	-	F	TSSOP14	4-ch 8-bit ADC / 8-bit DAC; 2 serial channels; 1-ch 8-bit PWM	✓
P89LPC914	✓	128B	1K	48K	Y / -	- / -	4	1 ch.	✓	✓	✓	✓	✓	✓	-	-	(✓)2	12	10(1)/4	✓	2clk51	2-clk	-	L	IRC	0-IRC	-	F	TSSOP14	1-ch 8-bit PWM; UART; SPI: 12 I/O pins	✓
P89LPC913	✓	128B	1K	48K	Y / -	- / -	4	-	✓	✓	✓	✓	✓	✓	-	-	(✓)2	12	10(1)/4	✓	2clk51	2-clk	-	L	IRC	0-12	-	F	TSSOP14	UART; SPI: 12 I/O pins; external crystal pins	✓
P89LPC912	✓	128B	1K	48K	Y / -	- / -	4	1 ch.	✓	✓	✓	✓	✓	✓	-	-	(✓)2	12	7(1)/4	✓	2clk51	2-clk	-	L	IRC	0-12	-	F	TSSOP14	1-ch 8-bit PWM; SPI: 12 I/O pins; external crystal pins	✓
P89LPC908	✓	128B	1K	48K	Y / -	- / -	4	-	✓	✓	✓	✓	✓	✓	-	-	✓	6	9(1)/4	✓	2clk51	2-clk	-	L	IRC	0-IRC	-	F	SO8	UART: 6 I/O pins	✓
P89LPC907	✓	128B	1K	48K	Y / -	- / -	4	-	✓	✓	✓	✓	✓	✓	-	-	✓	6	8(1)/4	✓	2clk51	2-clk	-	L	IRC	0-IRC	-	F	SO8	UART (* Transmit function only); 6 I/O pins	✓
P89LPC906	✓	128B	1K	48K	Y / -	- / -	4	1 ch.	✓	✓	✓	✓	✓	✓	-	-	✓	6	6(1)/4	✓	2clk51	2-clk	-	L	IRC	0-12	-	F	SO8	1-ch 8-bit PWM; 6 I/O pins; external crystal pins	✓
P89LPC904 <b>NEW</b>	✓	128B	1K	48K	Y / -	- / -	4	-	✓	✓	✓	✓	✓	✓	4-ch / 8-bit	1-ch / 8-bit	(✓)2	6	9(1)/4	✓	2clk51	2-clk	-	L	IRC / CLKIN	0-12	-	F	SO8, DIP8	LPC903 + 2-ch 8-bit ADC / 8-bit DAC and external clock input pin	✓
P89LPC903	✓	128B	1K	48K	Y / -	- / -	4	-	✓	✓	✓	✓	✓	✓	-	-	(✓)2	6	9(1)/4	✓	2clk51	2-clk	-	L	IRC	0-IRC	-	F	SO8	Industry standard pinout; 6 I/O pins; 2 analog comparators; UART	✓
P89LPC902	✓	128B	1K	48K	Y / -	- / -	4	-	✓	✓	✓	✓	✓	✓	-	-	(✓)2	6	6(1)/4	✓	2clk51	2-clk	-	L	IRC	0-IRC	-	F	SO8, DIP8	Industry std. pinout; 6 I/O pins; 2 analog comp.; 5 external interrupt inputs	✓
P89LPC901	✓	128B	1K	48K	Y / -	- / -	4	1 ch.	✓	✓	✓	✓	✓	✓	-	-	(✓)2	6	6(1)/4	✓	2clk51	2-clk	-	L	IRC	0-12	-	F	SO8, DIP8	Industry standard pinout; 6 I/O pins; 1-ch 8-bit PWM; external crystal pins	✓

IAP = In-Application Programmable Flash; ISP = In-System Progr. Flash; PP = Parallel Progr. Flash (via parallel programmer); ICP = In-Circuit Programmable (using off-board programmer); OTP = One-Time Programmable (EPROM); KBI = Keyboard Interrupt Inputs

I2C = Inter-Integrated Circuit Bus; CAN = Controller Area Network; PCA = Programmable Counter Array; ADC = Analog-to-Digital Converter; AC = Analog Comparator; PWM = Pulse Width Modulation

CCU = Capture Compare Unit; IRC = Internal RC Oscillator; POR = Power-On Reset; BOD = Brown-out detect; CLKIN = Clock-In Pin (ext. osc. only)

Shaded fields = Changes from previous edition

Temp. Range Options: B = 0 to +70°C, F = -40 to +85°C, H = -40 to +125°C. Not all package/temperature/voltage/frequency combinations are available. For most parts "3V" voltage range is 2.7V - 5.5V and "5V" voltage range is 4.5V - 5.5V. Check data sheet for details.

Type	Production	Memory				Timers				Serial Interfaces				Analog Feat.		I/O Pins	Interrupts (Ex)/Levels	Program Security	Core	Default Clock Rate	Optional Clock Rate	Reset active-low or -high?	Max. Freq. [MHz]	Freq. Range at 3V [MHz]	Freq. Range at 5V [MHz]	Temp. Range Options	Package Options	Comments / Special Features	Registerable? (NA only)	
XA	16-bit	RAM	ROM	OTP	Flash	PP/ISP/IAP?	# of Tim.	PWM	PCA	WD	UART	I <sup>2</sup> C	CAN	SPI	ADC(s) ch. / bits															DAC(s) ch. / bits
<b>XA Architecture:</b> The Philips XA (eXtended Architecture) is a family of high-performance, 16-bit, single-chip microcontrollers.																														
PXA-C37	✓	1K	-	32K	-	-	3	-	-	✓	✓	✓	✓	✓	✓	32	42	32(3)/8	✓	XA	N/A	N/A	L	30	-	0-32	B, F	PLCC44, LQFP44	On-chip CAN 2.0B; HW support f. CAN Higher Layer Protocols	✓
PXA-G49	✓	2K	-	-	64K	Y/Y/Y	3	-	-	✓	✓	✓	✓	✓	✓	32	38(3)/8	✓	XA	N/A	N/A	L	30	-	0-30	B, F	PLCC44, LQFP44	XA version with 64K Flash	✓	
PXA-G39	✓	1K	-	32K	Y/Y/Y	Y/Y/Y	3	-	-	✓	✓	✓	✓	✓	✓	32	38(3)/8	✓	XA	N/A	N/A	L	30	-	0-30	B	PLCC44	2nd XA version with Flash, 1/2 the memory size of XA-G49	✓	
PXA-G37	✓	512B	-	32K	-	-	3	-	-	✓	✓	✓	✓	✓	✓	32	38(3)/8	✓	XA	N/A	N/A	L	30	0-30	0-30	B, F	PLCC44, LQFP44	easy 80C51 upgrade	✓	
PXA-G30	✓	512B	-	-	-	-	3	-	-	✓	✓	✓	✓	✓	✓	32	38(3)/8	✓	XA	N/A	N/A	L	30	0-30	0-30	B, F	PLCC44, LQFP44	easy 80C51 upgrade, redesigned for lower power consumption	✓	
PXA-S37	✓	1K	-	32K	-	-	4	✓	✓	✓	✓	✓	✓	✓	✓	50	46(8)/8	✓	XA	N/A	N/A	L	30	0-30	0-30	B, F	PLCC68, LQFP80	for demanding closed-loop embedded control applications	✓	
PXA-S30	✓	1K	-	-	-	-	4	✓	✓	✓	✓	✓	✓	✓	✓	50	46(8)/8	✓	XA	N/A	N/A	L	30	0-30	0-30	B, F	PLCC68, LQFP80	for demanding closed-loop embedded control applications	✓	
PXA-H40	✓	256B	-	-	-	-	2	-	-	✓	✓	✓	✓	✓	✓	33	42(2)/8	✓	XA	N/A	N/A	L	30	0-30	0-30	F	LQFP100	on-board DRAM contr., 4 USARTs for HDLC/SDLC (85C30 style)	-	
PXA-H30	✓	256B	-	-	-	-	2	-	-	✓	✓	✓	✓	✓	✓	33	42(2)/8	✓	XA	N/A	N/A	L	30	0-30	0-30	F	LQFP100	four UARTs with DMA and 230.4 kbps capability	-	

Type	Production	Memory				Timers				Serial Interfaces				Analog Feat.		I/O Pins	Interrupts (Ex)/Levels	Program Security	Core	Default Clock Rate	Optional Clock Rate	Reset active-low or -high?	Max. Freq. at 6-clk / 12-clk [MHz]	Freq. Range at 3V [MHz]	Freq. Range at 5V [MHz]	Temp. Range Options	Package Options	Comments / Special Features	Registerable? (NA only)
80C51		RAM	ROM	OTP	Flash	PP/ISP/IAP?	# of Tim.	PWM	PCA	WD	UART	I <sup>2</sup> C	CAN	SPI	ADC(s) ch. / bits														
<b>Mx2 family:</b> The Mx2 family is the first Philips uC family to be based on the 51MX (Memory eXtension) core, which is an accelerated (6-clock), fully static 80C51 architecture supporting up to 8 MB of program memory and 8 MB of data memory.																													
P87C51MC2/02	✓	3K	-	96K	-	-	4	-	-	✓	✓	✓	✓	✓	✓	34	13(2)/4	✓	51MX	6-clk	-	H	24 / -	0-12	0-24	B	PLCC44	16MB data/code addr. range; 2 UARTs, SPI, P4 I/O	✓
P87C51MB2/02	✓	2K	-	64K	-	-	4	-	-	✓	✓	✓	✓	✓	✓	34	13(2)/4	✓	51MX	6-clk	-	H	24 / -	0-12	0-24	B	PLCC44	16MB data/code addr. range; 2 UARTs, SPI, P4 I/O	✓
<b>LPC76x family:</b> The LPC76x family is a highly integrated OTP-based single-chip microcontroller family with low pin-count (LPC) packages, designed for low system cost applications.																													
P87LPC779	✓	128B	-	8K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	13(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	TSSOP20	LPC769 upgrade w/ 8K OTP; Has additional 128B of RAM not supported by emulators.	✓
P87LPC778	✓	128B	-	8K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	13(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	TSSOP20	LPC768 upgrade w/ 8K OTP; Has additional 128B of RAM not supported by emulators.	✓
P87LPC769	✓	128B	-	4K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	13(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	H	SO20	2 AC, BOD, POR, 8KBI's, IRC (6MHz ± 25%), 4ch 8bit ADC, 2ch 8bit DAC	✓
P87LPC768	✓	128B	-	4K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	13(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	DIP20, SO20	2 AC, BOD, POR, 8KBI's, IRC (6MHz ± 25%), 4ch 8bit ADC, PWM	✓
P87LPC767	✓	128B	-	4K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	13(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F, H	DIP20, SO20	2 AC, BOD, POR, 8KBI's, IRC (6MHz ± 25%), 4ch 8bit ADC	✓
P87LPC764	✓	128B	-	4K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	12(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	TSSOP20, DIP20, SO20	2 AC, BOD, POR, 8KBI's, IRC (6MHz ± 10% / ± 25%)	✓
P87LPC764 /01	✓	128B	-	4K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	12(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B	TSSOP20, SO20	764 with improved IRC (6MHz ± 2.5% (0-50 C))	✓
P87LPC764HDH	✓	128B	-	4K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	12(3)/4	✓	6ck51	6-clk	12-clk	L	16 / 16	-	0-16	H	TSSOP20	764 with +40C to +125C spec; 5V; 16MHz; IRC=6MHz ± 10%	✓
P87LPC762	✓	128B	-	2K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	18	12(3)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	TSSOP20, DIP20, SO20	2 AC, BOD, POR, 8KBI's, IRC (6MHz ± 10% / ± 25%)	✓
P87LPC761	✓	128B	-	2K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	14	11(2)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B	TSSOP16, DIP16	16-pin LPC derivative; ± 2.5% internal RC Oscillator (0-50°C)	✓
P87LPC760	✓	128B	-	1K	-	OBP	2	-	-	✓	✓	✓	✓	✓	✓	12	11(2)/4	✓	6ck51	6-clk	12-clk	L	20 / 20	0-10	0-20	B	TSSOP14, DIP14	14-pin LPC derivative; ± 2.5% internal RC Oscillator (0-50°C)	✓
<b>66x family:</b> The P89C66x offers a large on-chip RAM, the flexibility of Flash ISP and IAP, PWM, high-speed I/O and/or up/down counting capabilities. Because of the I <sup>2</sup> C interface it is also well suited for Intelligent Platform Management (IPMI) applications.																													
P89C669	✓	2K	-	96K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	13(2)/4	✓	51MX	6-clk	-	H	24 / -	-	0-24	B, F	PLCC44, LQFP44	51MX core, 16MB data/code addr. range; 2 UARTs, I <sup>2</sup> C, no P4	✓
P89C668	✓	8K	-	64K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6ck51	6-clk	12-clk	H	20 / 33	-	0-20/33	B, F	PLCC44, LQFP44	6-clk default, 12-clk option; 5V ISP/IAP Flash	✓
P89C664	✓	2K	-	64K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6ck51	6-clk	12-clk	H	20 / 33	-	0-20/33	B, F	PLCC44, LQFP44	6-clk default, 12-clk option; 5V ISP/IAP Flash	✓
P89C662	✓	1K	-	32K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6ck51	6-clk	12-clk	H	20 / 33	-	0-20/33	B, F	PLCC44, LQFP44	6-clk default, 12-clk option; 5V ISP/IAP Flash	✓
P89C660	✓	512B	-	16K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6ck51	6-clk	12-clk	H	20 / 33	-	0-20/33	B, F	PLCC44, LQFP44	6-clk default, 12-clk option; 5V ISP/IAP Flash	✓
<b>66xX2 family:</b> The P87C66xX2 offers 16K OTP, PWM (PCA) and up to two I <sup>2</sup> C interfaces.																													
P87C661X2	✓	512B	-	16K	-	-	4	✓	✓	✓	✓	✓	✓	✓	✓	32	9(2)/4	✓	6ck51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B	PLCC44, LQFP44	87C660X2 with two I <sup>2</sup> C interfaces	✓
P87C660X2	✓	512B	-	16K	-	-	4	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6ck51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	PLCC44, LQFP44	OTP version of 89C660; 12-clk default, 6-clk option	✓
<b>65xX2 family:</b> 6-clk option upgrade of the 8xC654 / 8xC652 devices.																													
P87C654X2	✓	256B	-	16K	-	-	2	-	-	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	PLCC44, LQFP44	X2 version of S87C654/652	-
P83C654X2	✓	256B	16K	-	-	-	2	-	-	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	PLCC44, LQFP44	X2 version of P83C654/652	-
<b>Rx2 family:</b> The P8xC51Rx2 offers the flexibility of Flash ISP and IAP, PWM, high-speed I/O and/or up/down counting capabilities.																													
P89L51RD2	✓	1K	-	64K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	33 / 33	0-33	-	B, F	DIP40, PLCC44, TQFP44	Operating Voltage 3V ± 10%	-
P89V51RD2	✓	1K	-	64K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	40 / 40	-	0-40	B, F	DIP40, PLCC44, TQFP44	same as P89L51RD2, but Operating Voltage 5V ± 10%	-
P89C51RD2 /01	✓	1K	-	64K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LQFP44	12-clk default, 6-clk option; 5V ISP/IAP Flash, 4K blocks	-
P89C51RD2H	✓	1K	-	64K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	6-clk	12-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LQFP44	Please use new 89C51RD2 /01 (see above)	-
P87C51RD2	✓	1K	-	64K	-	-	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LQFP44	RD2 in OTP	-
P89C51RC2 /01	✓	512B	-	32K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LQFP44	12-clk default, 6-clk option; 5V ISP/IAP Flash, 4K blocks	-
P89C51RC2H	✓	512B	-	32K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	6-clk	12-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LQFP44	Please use new 89C51RC2 /01 (see above)	-
P87C51RC2	✓	512B	-	32K	-	-	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LQFP44	RC2 in OTP	-
P89C51RB2 /01	✓	512B	-	16K	Y/Y/Y	Y/Y/Y	4	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6ck51	12-clk	6-clk	H	20 / 33	-	0-20/33	B	PLCC44, LQFP44	12-clk default, 6-clk option; 5V ISP/IAP Flash, 4K blocks	-
P8																													

Type	Production	Memory				Timers				Serial Interfaces				Analog Feat.		I/O Pins	Interrupts (Ex.) Levels	Program Security	Core	Default Clock Rate	Optional Clock Rate	Reset active-low or -high?	Max. Freq. at 6-clk / 12-clk [MHz]	Freq. Range at 3V [MHz]	Freq. Range at 5V [MHz]	Temp. Range Options	Package Options	Comments / Special Features	Registerable? (NA only)		
80C51	RAM	ROM	OTP	Flash	PP / ISP / IAP?	# of Tim.	PWM	PCA	WD	UART	i <sup>2</sup> C	CAN	SPI	ADC (s) ch. / bits	DAC (s) ch. / bits															Analog Compar.	
<b>55x family:</b>																															
P87C552	✓	256B	-	8K	-	-	3	✓	✓	✓	✓	✓	✓	✓	8/10	-	-	48	15(6)/4	✓	Std51	12-clk	-	H	- / 16	0-16	0-16	B, F	PLCC68		✓
P83C552	✓	256B	8K	-	-	-	3	✓	✓	✓	✓	✓	✓	✓	8/10	-	-	48	15(6)/2	✓	Std51	12-clk	-	H	- / 24	-	3.5-24	B, F, H	PLCC68, QFP80		✓
P80C552	✓	256B	-	-	-	-	3	✓	✓	✓	✓	✓	✓	✓	8/10	-	-	48	15(6)/2	✓	Std51	12-clk	-	H	- / 24	-	3.5-24	B, F, H	PLCC68, QFP80		✓
P87C554 LOFP	✓	512B	-	16K	-	-	3	✓	✓	✓	✓	✓	✓	✓	7/10	-	-	48	15(6)/4	✓	6clk51	6-clk	-	H	16 / -	0-8	0-16	B, F	LOFP64	6-clk only; LOFP64 only; 7 ADC channels	✓
P87C554 PLCC	✓	512B	-	16K	-	-	3	✓	✓	✓	✓	✓	✓	✓	8/10	-	-	48	15(6)/4	✓	Std51	12-clk	-	H	- / 16	0-16	0-16	B, F	PLCC68	12-clk only; PLCC68 only; 8 ADC channels	✓
P83C554 LOFP	✓	512B	16K	-	-	-	3	✓	✓	✓	✓	✓	✓	✓	7/10	-	-	48	15(6)/4	✓	6clk51	6-clk	-	H	16 / -	0-8	0-16	B, F	LOFP64	6-clk only; LOFP64 only; 7 ADC channels	-
P83C554 PLCC	✓	512B	16K	-	-	-	3	✓	✓	✓	✓	✓	✓	✓	8/10	-	-	48	15(6)/4	✓	Std51	12-clk	-	H	- / 16	0-16	0-16	B, F	PLCC68	12-clk only; PLCC68 only; 8 ADC channels	-
P80C554 LOFP	✓	512B	-	-	-	-	3	✓	✓	✓	✓	✓	✓	✓	7/10	-	-	48	15(6)/4	✓	6clk51	6-clk	-	H	16 / -	0-8	0-16	B, F	LOFP64	6-clk only; LOFP64 only; 7 ADC channels	✓
P8xC557E8	✓	2K	64K	64K	-	-	3	✓	✓	✓	✓	✓	✓	✓	8/10	-	-	48	15(6)/2	✓	Std51	12-clk	-	H	- / 16	-	3.5-16	F	QFP80	12-clk only; QFP80 only; lower EMI	-
P8xC557E4	✓	1K	32K	-	-	-	3	✓	✓	✓	✓	✓	✓	✓	8/10	-	-	48	15(6)/2	✓	Std51	12-clk	-	H	- / 16	-	3.5-16	B, F	QFP80	12-clk only; QFP80 only; lower EMI	-
<b>8xC6x</b>																															
P89C61X2	✓	1K	-	-	64K	Y/Y/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	20 / 33	-	0-20/33	B	PLCC44, LOFP44, DIP40	89C58 upgrade w/ low-end ISP	✓
P89C60X2	✓	512B	-	-	64K	Y/Y/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	20 / 33	-	0-20/33	B	PLCC44, LOFP44, DIP40	89C58 upgrade w/ low-end ISP	✓
<b>8xC58</b>																															
P89C58X2	✓	256B	-	-	32K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk def., 6-clk opt. (switch by SW or par. progr.)	-
P89C58B	✓	256B	-	-	32K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	-	0-33	B	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk only	-
P87C58X2	✓	256B	-	32K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	OTP part; 12-clk def., 6-clock opt. (switch by SW or par. progr.)	-
P87C58	✓	256B	-	32K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	OTP part; 12-clk only	-
P80C58X2	✓	256B	32K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	ROM part; 12-clk default, 6-clock option (switch by software)	-
P80C58	✓	256B	32K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	Please use 80C58X2 (see above) for new ROM codes	-
<b>8xC54</b>																															
P89C54X2	✓	256B	-	-	16K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk def., 6-clk opt. (switch by SW or par. progr.)	-
P89C54B	✓	256B	-	-	16K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	-	0-33	B	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk only	-
P87CL54X2	✓	256B	-	16K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	16 / 33*	0-33	-	B	LOFP44, TSSOP38	*at 3.3V: 10% for 1.8V to 3.3V; 6MHz (6-clk) / 12MHz (12-clk)	-
P87C54X2	✓	256B	-	16K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	OTP part; 12-clk def., 6-clock opt. (switch by SW or par. progr.)	-
P87C54	✓	256B	-	16K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	OTP part; 12-clk only	-
P80C54X2	✓	256B	16K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	ROM part; 12-clk default, 6-clock option (switch by software)	-
P80C54	✓	256B	16K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	Please use 80C54X2 (see above) for new ROM codes	-
<b>8xC52</b>																															
P89C52X2	✓	256B	-	-	8K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk def., 6-clk opt. (switch by SW or par. progr.)	-
P89C52B	✓	256B	-	-	8K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	-	0-33	B	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk only	-
P87CL52X2	✓	256B	-	8K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	16 / 33*	0-33	-	B	LOFP44, TSSOP38	*at 3.3V: 10% for 1.8V to 3.3V; 6MHz (6-clk) / 12MHz (12-clk)	-
P87C52X2	✓	256B	-	8K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	OTP part; 12-clk def., 6-clock opt. (switch by SW or par. progr.)	-
P87C52	✓	256B	-	8K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	OTP part; 12-clk only	-
P80C52X2	✓	256B	8K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	ROM part; 12-clk default, 6-clock option (switch by software)	-
P80C52	✓	256B	8K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	Please use 80C52X2 (see above) for new ROM codes	-
<b>8xC51</b>																															
P89C51X2	✓	128B	-	-	4K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	20 / 33	-	0-20/33	B, F	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk def., 6-clk opt. (switch by SW or par. progr.)	-
P89C51B	✓	128B	-	-	4K	Y/-/-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	-	0-33	B	DIP40, PLCC44, LOFP44	5V PP Flash part; 12-clk only	-
P87C51X2	✓	128B	-	4K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	OTP part; 12-clk def., 6-clock opt. (switch by SW or par. progr.)	-
P87C51	✓	128B	-	4K	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	OTP part; 12-clk only	-
P80C51X2	✓	128B	4K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	ROM part; 12-clk default, 6-clock option (switch by software)	-
P80C51	✓	128B	4K	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	✓	Std51	12-clk	-	H	- / 33	0-16	0-33	B, F	DIP40, PLCC44, QFP44	Please use 80C51X2 (see above) for new ROM codes	-
<b>80C3x</b>																															
P80C32X2	✓	256B	-	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	-	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LOFP44	ROMless part; 12-clk default, 6-clock option (switch by SW)	-
P80C32	✓	256B	-	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	-	Std51	12-clk	-	H	- / 33	0-16	0-33	B	DIP40, PLCC44, QFP44	ROMless part; 12-clk only	-
P80C31X2	✓	128B	-	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	-	6clk51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B	DIP40, PLCC44	ROMless part; 12-clk default, 6-clock option (switch by SW)	-
P80C31	✓	128B	-	-	-	-	3	-	-	✓	✓	✓	✓	✓	-	-	-	32	6(2)/4	-	Std51	12-clk	-								