

Type	Production	RAM	Flash	Sectors	Width	PP / ISP / IAP?	# of T. (incl. WD&RTC)	TO/T1 Cap-ture inputs	TO/T1 Match outputs	PWM Timer (6-ch PWM)	Serial Interfaces	UART	I <sup>2</sup> C	CAN	USB	SPI	Analog Feat.	ADC(s) ch. / bits	DAC(s) ch. / bits	Analog Comp.	I/O Pins	Interrupts (Ext)/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																																		
<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	32x8K	128-bit	-/Y/Y	4	8	8	✓	(2)	✓	✓(4)	-	✓(2)	8/10	-	-	112	25(4)/16	✓	ARM7	✓ 4 CS	✓	L	60	1.8V	3.3V	J, H	LQFP144	LPC2214 upgrade w/ 4x CAN, -40 to 125C	✓		
LPC2292	✓	16K	256K	32x8K	128-bit	-/Y/Y	4	8	8	✓	(2)	✓	✓(2)	-	✓(2)	8/10	-	-	112	25(4)/16	✓	ARM7	✓ 4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	LPC2214 upgrade w/ 2x CAN	✓		
LPC2290	✓	16K	-	-	-	-	4	8	8	✓	(2)	✓	✓(2)	-	✓(2)	8/10	-	-	76	25(4)/16	N/A	ARM7	✓ 4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	ROMless version of LPC2292	✓		
LPC2214	✓	16K	256K	32x8K	128-bit	-/Y/Y	4	8	8	✓	(2)	✓	-	-	✓(2)	8/10	-	-	112	16(4)/16	✓	ARM7	✓ 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	✓		
LPC2212	✓	16K	128K	32x8K	128-bit	-/Y/Y	4	8	8	✓	(2)	✓	-	-	✓(2)	8/10	-	-	112	16(4)/16	✓	ARM7	✓ 4 CS	✓	L	60	1.8V	3.3V	F	LQFP144	128K Flash version of LPC2214	✓		
LPC2220	✓	64K	-	-	-	-	4	8	8	✓	(2)	✓	-	-	✓(2)	8/10	-	-	76	16(4)/16	N/A	ARM7 TDMI	✓ 4 CS	✓	L	75	1.8V	3.3V	F	LQFP144	64K RAM version of LPC2210; 1x SPI; 1x SPI/SSP (shared pins), 75 Mhz operation	✓		
LPC2210	✓	16K	-	-	-	-	4	8	8	✓	(2)	✓	-	-	✓(2)	8/10	-	-	76	16(4)/16	N/A	ARM7	✓ 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 16 10-bit ADC channels, on-chip Real-Monitor and Trace.																																	
LPC2194	✓	16K	256K	32x8K	128-bit	-/Y/Y	4	8	8	✓	(2)	✓	✓(4)	-	✓(2)	4/10	-	-	46	25(4)/16	✓	ARM7	-	✓	L	60	1.8V	3.3V	J, H	LQFP64	LPC21x4 upgrade w/ 4x CAN, -40 to +125C	✓		
LPC2148	✓	32K	512K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	✓	✓(2)	8-ch / 10-bit	1-ch / 10-bit	-	45	23(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	LPC2138 + USB2.0 Full Speed + DMA + 8KB AHB SRAM	✓		
LPC2146	✓	32K	256K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	✓	✓(2)	8-ch / 10-bit	1-ch / 10-bit	-	45	23(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	LPC2136 + USB2.0 Full Speed + DMA + 8KB AHB SRAM	✓		
LPC2144	✓	16K	128K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	✓	✓(2)	8-ch / 10-bit	1-ch / 10-bit	-	45	23(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	LPC2134 + USB2.0 Full Speed + DMA + 8KB AHB SRAM	✓		
LPC2142	✓	16K	64K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	✓	✓(2)	8-ch / 10-bit	1-ch / 10-bit	-	45	23(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	LPC2132 + USB2.0 Full Speed + DMA + 8KB AHB SRAM	✓		
LPC2141	✓	8K	32K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	✓	✓(2)	8-ch / 10-bit	-	-	45	23(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	LPC2131 + USB2.0 Full Speed	✓		
LPC2138	✓	32K	512K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	-	✓(2)	2x 8-ch / 10-bit	1-ch / 10-bit	-	47	22(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	3.3V single supply voltage; separate 32KHz XTAL input pins and separate battery supply voltage pins for RTC; POR; BOD	✓		
LPC2136	✓	32K	256K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	-	✓(2)	2x 8-ch / 10-bit	1-ch / 10-bit	-	47	22(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	256K Flash / 32K RAM version of LPC2138	✓		
LPC2134	✓	16K	128K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	-	✓(2)	2x 8-ch / 10-bit	1-ch / 10-bit	-	47	22(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	128K Flash / 16K RAM version of LPC2138	✓		
LPC2132	✓	16K	64K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	-	✓(2)	8-ch / 10-bit	1-ch / 10-bit	-	47	22(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	64K Flash / 16K RAM version of LPC2138	✓		
LPC2131	✓	8K	32K	var.	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓(2)	-	-	✓(2)	8-ch / 10-bit	-	-	47	22(4)/16	✓	ARM7 TDMI	-	✓	L	60	internal (1.8V)	3.3V	F	LQFP64	32K Flash / 8K RAM version of LPC2138	✓		
LPC2119/2129	✓	16K	128K/256K	16/32 x 8K	128-bit	Y/Y/Y	4	8	8	✓	(2)	✓	✓(2)	-	✓(2)	4-ch / 10-bit	-	-	46	18(4)/16	✓	ARM7 TDMI	-	✓	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/Y	4	8	8	✓	(2)	✓	-	-	✓(2)	4-ch / 10-bit	-	-	46	16(4)/16	✓	ARM7 TDMI	-	✓	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/Y	4	7	7	✓	(2)	✓	-	-	✓	-	-	-	32	16(3)/16	-	ARM7 TDMI	-	✓	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	16x8K	128-bit	Y/Y/Y	4	7	7	✓	(2)	✓	-	-	✓	-	-	-	32	16(3)/16	-	ARM7 TDMI	-	✓	L	60	1.8V	3.3V	B	LQFP48	32K RAM version of LPC2106	✓		
LPC2104	✓	16K	128K	16x8K	128-bit	Y/Y/Y	4	7	7	✓	(2)	✓	-	-	✓	-	-	-	32	16(3)/16	-	ARM7 TDMI	-	✓	L	60	1.8V	3.3V	B	LQFP48	16K RAM version of LPC2106	✓		
LPC2103 <b>NEW</b>	✓	8K	32K	var.	128-bit	Y/Y/Y	6	10	14	-	✓(2)	✓(2)	-	-	✓(2)	8-ch / 10-bit	-	-	32	14(13)/16	✓	ARM7 TDMI	-	✓	L	70	1.8V	3.3V	F	LQFP48	Separate 32KHz XTAL input pins and separate battery supply voltage pins for RTC; two ext. 16-bit timers; High-Speed Ports	✓		
LPC2102 <b>NEW</b>	✓	4K	16K	var.	128-bit	Y/Y/Y	6	10	14	-	✓(2)	✓(2)	-	-	✓(2)	8-ch / 10-bit	-	-	32	14(13)/16	✓	ARM7 TDMI	-	✓	L	70	1.8V	3.3V	F	LQFP48	16K Flash / 4K RAM version of LPC2103	✓		
LPC2101 <b>NEW</b>	✓	2K	8K	var.	128-bit	Y/Y/Y	6	10	14	-	✓(2)	✓(2)	-	-	✓(2)	8-ch / 10-bit	-	-	32	14(13)/16	✓	ARM7 TDMI	-	✓	L	70	1.8V	3.3V	F	LQFP48	8K Flash / 2K RAM version of LPC2103	✓		

JAP = 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.	Interrupts (Ext)/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 / PP? ISP / IAP?	Total # of Timers PWM RTC / Syst. Tmr. WD	UART I <sup>2</sup> C CAN USB SPI	ADC(s) ch. / bits DAC(s) ch. / bits Analog Compar.	I/O Pins																				
<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.																									
P89LPC952	✓	512B	8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	42 (39*)	17(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	PLCC44	LPC900 in 44-pin package: 2 UARTs: JTAG port; clock doubler for IRC osc. * 39 I/O if JTAG pins are used	✓
P89LPC9401 new	✓	256B	8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	23	13(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	LQFP64	LPC931 with integrated PCF8576D Universal LCD driver	✓
P89LPC938	✓	768B	512B	8K	Y/Y	Y/Y	5	CCU	✓	✓	✓	(2)	26	15(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP28, HVQFN28, PLCC28	10-bit 8-channel ADC; 2 Analog Comparators; Byte-erasable Flash + EEPROM.	✓
P89LPC936	✓	768B	512B	16K	Y/Y	Y/Y	5	CCU	✓	✓	✓	(2)	26	15(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP28	LPC935 w/ 16K Flash, 18MHz operation @ V <sub>DD</sub> -3.3V ±10%	✓
P89LPC935	✓	768B	512B	8K	Y/Y	Y/Y	5	CCU	✓	✓	✓	(2)	26	15(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	PLCC28, TSSOP28, HVQFN28	LPC932A1 + two 4-ch 8-bit ADCs / two 8-bit DACs	✓
P89LPC933/934	✓	256B	4/8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	26	15(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP28	LPC930/931 + 4-ch 8-bit ADCs / two 8-bit DACs	✓
P89LPC932A1	✓	768B	512B	8K	Y/Y	Y/Y	5	CCU	✓	✓	✓	(2)	26	15(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	PLCC28, TSSOP28, HVQFN28	Dedicated EEPROM: ± 2.5% int. RC Osc. (7.3728MHz); BOD, POR, 8KB's, 2 analog comp. byte-erasable Flash	✓
P89LPC932	✓	768B	512B	8K	-Y/Y	Y/Y	5	CCU	✓	✓	✓	(2)	26	15(3)/4	✓	2clk51	2-clk	-	L	12	0-12	-	F	TSSOP/PLCC/HVQFN28	Use LPC932A1 for new designs (932A1 adds ICP, byte-erasable Flash).	✓
P89LPC9311	✓	256B	8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	26	13(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP28	LPC931 with 8 high-drive pins (sourcing 20 mA)	✓
P89LPC930/931	✓	256B	4/8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	26	13(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP28	4K / 8K Flash versions of LPC932A1 w/o EEPROM, w/o CCU, w/o XRAM	✓
P89LPC924/925	✓	256B	4/8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	18	12(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP20 DIP20	LPC921/922 + 4-ch 8-bit ADC / 8-bit DAC	✓
P89LPC9221	✓	256B	8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	18	12(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP20, DIP20	LPC922 with 8 high-drive pins (sourcing 20 mA)	✓
P89LPC921/922	✓	256B	4/8K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	18	12(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP20, DIP20	20-pin versions of LPC930/931 w/o SPI; LPC76x pin-comp. upgrade	✓
P89LPC920	✓	256B	2K	Y/Y	Y/Y	4	2 ch.	✓	✓	✓	✓	(2)	18	12(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP20	2K Flash version of 921/922	✓
P89LPC917	✓	256B	2K	Y/-	-/-	4	2 ch.	✓	✓	✓	✓	(2)	14	13(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP16	4-ch 8-bit ADC / 8-bit DAC; 3 serial channels; 2-ch 8-bit PWM	✓
P89LPC916	✓	256B	2K	Y/-	-/-	4	1 ch.	✓	✓	✓	✓	(2)	14	14(2)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP16	4-ch 8-bit ADC / 8-bit DAC; 3 serial channels; 1-ch 8-bit PWM	✓
P89LPC915	✓	256B	2K	Y/-	-/-	4	1 ch.	✓	✓	✓	✓	(2)	12	13(3)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP14	4-ch 8-bit ADC / 8-bit DAC; 2 serial channels; 1-ch 8-bit PWM	✓
P89LPC914	✓	128B	1K	Y/-	-/-	4	1 ch.	✓	✓	✓	✓	(2)	12	10(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP14	1-ch 8-bit PWM; UART; SPI; 12 I/O pins	✓
P89LPC913	✓	128B	1K	Y/-	-/-	4	-	✓	✓	✓	✓	(2)	12	10(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP14	UART; SPI; 12 I/O pins; external crystal pins	✓
P89LPC912	✓	128B	1K	Y/-	-/-	4	1 ch.	✓	✓	✓	✓	(2)	12	7(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP14	1-ch 8-bit PWM; SPI; 12 I/O pins; external crystal pins	✓
P89LPC9107	✓	128B	1K	Y/-	-/-	4	2 ch.	✓	✓	✓	✓	(2)	10	9(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	TSSOP14	LPC9102/3 in TSSOP14 package (2 pins are not connected)	✓
P89LPC9103	✓	128B	1K	Y/-	-/-	4	-	✓	✓	✓	✓	(2)	8	9(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	HVSON10	Clock-Doubler for internal RC osc: UART; 4-ch 8-bit ADC/DAC	✓
P89LPC9102	✓	128B	1K	Y/-	-/-	4	2 ch.	✓	✓	✓	✓	(2)	8	9(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	HVSON10	Clock-Doubler for int. RC osc: 2 PWM outputs (T0/T1); 4-ch 8-bit ADC/DAC	✓
P89LPC908	✓	128B	1K	Y/-	-/-	4	-	✓	✓	✓	✓	(2)	6	9(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	SO8	UART; 6 I/O pins	✓
P89LPC907	✓	128B	1K	Y/-	-/-	4	-	✓	✓	✓	✓	(2)	6	8(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	SO8	UART (* Transmit function only); 6 I/O pins	✓
P89LPC906	✓	128B	1K	Y/-	-/-	4	1 ch.	✓	✓	✓	✓	(2)	6	6(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	SO8	1-ch 8-bit PWM; 6 I/O pins; external crystal pins	✓
P89LPC903	✓	128B	1K	Y/-	-/-	4	-	✓	✓	✓	✓	(2)	6	9(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	SO8	Industry standard pinout; 6 I/O pins; 2 analog comparators; UART	✓
P89LPC902	✓	128B	1K	Y/-	-/-	4	-	✓	✓	✓	✓	(2)	6	6(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	SO8, DIP8	Industry std. pinout; 6 I/O pins; 2 analog comp.; 5 external interrupt inputs	✓
P89LPC901	✓	128B	1K	Y/-	-/-	4	1 ch.	✓	✓	✓	✓	(2)	6	6(1)/4	✓	2clk51	2-clk	-	L	18	0-18	-	F	SO8, DIP8	Industry standard pinout; 6 I/O pins; 1-ch 8-bit PWM; external crystal pins	✓

Type	Production	Memory	Timers	Serial Interfaces	Analog Feat.	Interrupts (Ext)/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)											
<b>LPC700</b>		RAM ROM OTP Flash PP / ISP / IAP?	# of Tim. Timers PWM PCA WD	UART I <sup>2</sup> C CAN USB SPI	ADC(s) ch. / bits DAC(s) ch. / bits Analog Compar.	I/O Pins																							
<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	-	-	-	✓	(bit)	4/8	2/8	(2)	18	13(3)/4	✓	6clk51	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	-	-	-	✓	(bit)	4/8	2/8	(2)	18	13(3)/4	✓	6clk51	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	-	-	-	✓	(bit)	4/8	2/8	(2)	18	13(3)/4	✓	6clk51	6-clk	12-clk	L	20 / 20	0-10	0-20	H	SO20	2 AC, BOD, POR, 8KB's, IRC (6MHz ± 25%); 4ch 8bit ADC, 2ch 8bit DAC	✓
P87LPC768	✓	128B	-	4K	-	OBP	2	-	-	-	✓	(bit)	4/8	1/8	(2)	18	13(3)/4	✓	6clk51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	DIP20, SO20	2 AC, BOD, POR, 8KB's, IRC (6MHz ± 25%); 4ch 8bit ADC, PWM	✓
P87LPC767	✓	128B	-	4K	-	OBP	2	-	-	-	✓	(bit)	4/8	1/8	(2)	18	13(3)/4	✓	6clk51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F, H	DIP20, SO20	2 AC, BOD, POR, 8KB's, IRC (6MHz ± 25%); 4ch 8bit ADC	✓
P87LPC764	✓	128B	-	4K	-	OBP	2	-	-	-	✓	(bit)	-	-	(2)	18	12(3)/4	✓	6clk51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	TSSOP20, DIP20, SO20	2 AC, BOD, POR, 8KB's, IRC (6MHz ± 10% / ± 25%)	✓
P87LPC764 /01	✓	128B	-	4K	-	OBP	2	-	-	-	✓	(bit)	-	-	(2)	18	12(3)/4	✓	6clk51	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	-	-	-	✓	(bit)	-	-	(2)	18	12(3)/4	✓	6clk51	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	-	-	-	✓	(bit)	-	-	(2)	18	12(3)/4	✓	6clk51	6-clk	12-clk	L	20 / 20	0-10	0-20	B, F	TSSOP20, DIP20, SO20	2 AC, BOD, POR, 8KB's, IRC (6MHz ± 10% / ± 25%)	✓
P87LPC761	✓	128B	-	2K	-	OBP	2	-	-	-	✓	(bit)	-	-	(2)	14	11(2)/4	✓	6clk51	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	-	-	-	✓	(bit)	-	-	(2)	12	11(2)/4	✓	6clk51	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)	✓

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  
 I<sup>2</sup>C = 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)  
 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.  
 Shaded fields = Changes from previous edition

Type	Production	Memory					Timers				Serial Interfaces				Analog Feat.			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	IC	CAN	USB	SPI	ADC(s) ch. / bits	DAC(s) ch. / bits								Analog Compar.	I/O Pins	Interrupts (Ext)/Levels	Program Security	Core	Default Clock Rate	Optional Clock Rate	Reset active-low or -high?
<b>XA Architecture:</b> The Philips XA (eXtended Architecture) is a family of high-performance, 16-bit, single-chip microcontrollers.																																
PXA-C37	✓	1K	-	32K	-	Y/-	3	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	42(3)/8	✓	XA	N/A	N/A	L	32	-	0-32	B, F	PLCC44, LQFP44	On-chip CAN 2.0B- HW support f. CAN Higher Layer Protocols	✓
PXA-G49	✓	2K	-	-	-	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	-	-	-	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	-	Y/-	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	-	Y/-	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.			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	IC	CAN	USB	SPI	ADC(s) ch. / bits	DAC(s) ch. / bits								Analog Compar.	I/O Pins	Interrupts (Ext)/Levels	Program Security	Core	Default Clock Rate	Optional Clock Rate	Reset active-low or -high?
<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	-	Y/-	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	-	Y/-	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>66x family:</b> The P89C66x offers a large on-chip RAM, the flexibility of Flash ISP and IAP, PMW, 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 (IPM) applications.																																
P89C669	✓	2K	-	96K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	13(2)/4	✓	51MX	6-clk	-	H	24 / -	0-24	0-24	B, F	PLCC44, LQFP44	51MX core, 16MB data/code addr. range: 2 UARTs, IC, no P4	✓
P89C668	✓	8K	-	64K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6clK51	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	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6clK51	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	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6clK51	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	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6clK51	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, PMW (PCA) and up to two I <sup>2</sup> C interfaces.																																
P87C661X2	✓	512B	-	16K	-	Y/-	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	9(2)/4	✓	6clK51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	PLCC44, LQFP44	87C660X2 with two I <sup>2</sup> C interfaces	✓
P87C660X2	✓	512B	-	16K	-	Y/-	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	8(2)/4	✓	6clK51	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	-	Y/-	2	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	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	✓	6clK51	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 Rx2 offers the flexibility of Flash ISP and IAP, PMW, high-speed I/O and/or up/down counting capabilities. The 'V' and 'LV' devices feature an additional SPI interface.																																
P89V51RD2	✓	1K	-	64K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	20 / 40	-	0-20/40	B, F	DIP40, PLCC44, TQFP44	same as P89LV51RD2, but Operating Voltage 5V ± 10%	-
P89LV51RD2	✓	1K	-	64K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	16 / 33	0-16/33	-	B, F	DIP40, PLCC44, TQFP44	Operating Voltage 3V ± 10%	-
P89C51RD2 /01	✓	1K	-	64K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	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	-
P87C51RD2	✓	1K	-	64K	-	Y/-	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LQFP44	RD2 in OTP	-
P89V51RC2	✓	1K	-	32K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	20 / 40	-	0-20/40	B, F	DIP40	32K Flash version of P89V51RD2	-
P89LV51RC2	✓	1K	-	32K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	16 / 33	0-16/33	-	B, F	DIP40, PLCC44, TQFP44	32K Flash version of P89LV51RD2	-
P89C51RC2 /01	✓	512B	-	32K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	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	-
P87C51RC2	✓	512B	-	32K	-	Y/-	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B, F	DIP40, PLCC44, LQFP44	RC2 in OTP	-
P89V51RB2	✓	1K	-	16K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	20 / 40	-	0-20/40	B, F	DIP40, PLCC44	16K Flash version of P89V51RD2	-
P89LV51RB2	✓	1K	-	16K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	16 / 33	0-16/33	-	B, F	DIP40, PLCC44, TQFP44	16K Flash version of P89LV51RD2	-
P89C51RB2 /01	✓	512B	-	16K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	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	-
P87C51RB2	✓	512B	-	16K	-	Y/-	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B	DIP40, PLCC44, LQFP44	RB2 in OTP	-
P89C51RA2 /01	✓	512B	-	8K	-	Y/Y/Y	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	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	-
P87C51RA2	✓	512B	-	8K	-	Y/-	4	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	32	7(2)/4	✓	6clK51	12-clk	6-clk	H	30 / 33	0-16	0-30/33	B	PLCC44, LQFP44	RA2 in OTP	-
<b>55x family:</b>																																
P87C552	✓	256B	-	8K	-	Y/-	3	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	8/10	15(6)/4	✓	Std51	12-clk	-	H	- / 16	0-16	0-16	B, F	PLCC68		✓
P83C552	✓	256B	8K	-	-	-	3	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	8/10	15(6)/2	✓	Std51	12-clk	-	H	- / 24	-	3.5-24	B, F, H	PLCC68, QFP80		✓
P80C552	✓	256B	-	-	-	-	3	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	8/10	15(6)/2	✓	Std51	12-clk	-	H	- / 24	-	3.5-24	B, F, H	PLCC68, QFP80		✓
P87C554 LQFP	✓	512B	-	16K	-	Y/-	3	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	7/10	15(6)/4	✓	6clK51	6-clk	-	H	16 / -	0-8	0-16	B, F	LQFP64	6-clk only; LQFP64 only; 7 ADC channels	✓
P87C554 PLCC	✓	512B	-	16K	-	Y/-	3	-	-																							