

NXP Microcontrollers Selection Guide

NXP is changing the landscape for embedded applications. Nobody gives you more options for ARM® Cortex-M™ microcontrollers than NXP. Our industry-leading microcontrollers include the latest 32-bit Cortex-M0, Cortex-M3, and Cortex-M4 based product families, delivering high performance, low power consumption, and many peripheral options. We offer an easy migration path with pin-and-software compatible options across product families and Cortex-M processors. When designers choose NXP, they get more than just one solution; they get a whole range of options for supporting their entire product line, now and in the future.

Cortex-M0

The LPC1100 and LPC1200 series, based on the ARM Cortex-M0 core, are the lowest-priced 32-bit MCU solution in the market. They deliver unprecedented performance, simplicity, low-power, and dramatic reductions in code size for every application.

Type	Memory			Timers		Serial Interfaces						Analog		LCD controller	SD/MMC	I/O pins	External bus interface	RTC	Max freq. (MHz)	CPU Voltage (V)	I/O voltage (V)	Temp. range options	Package	Comment/Special features
	Flash (KB)	RAM (KB)	EEPROM	Standard Timers ⁺	PWM channels ⁺⁺	Ethernet	USB	UART	I ² C	CAN	SPI	SSP/SPI	I ² S											
LPC1100L devices																								
LPC1114	32	4-8		5	11**			1	1			1-2				28-42		50	3.3	F	HVQFN33, LQFP48	Low cost, low-power Cortex-M0 device with on-chip power profiles		
LPC1113	24	4-8		5	11**			1	1			1-2				28-42		50	3.3	F	HVQFN33, LQFP48	24K Flash version of LPC1114		
LPC1112	16	2-4		5	11**			1	1			1				28		50	3.3	F	HVQFN33	16K Flash version of LPC1114		
LPC1111	8	2-4		5	11**			1	1			1				28		50	3.3	F	HVQFN33	8K Flash version of LPC1114		
LPC11U00 devices																								
LPC11U12	16	6		5	11**		1	1	1			2				26-40		50	3.3	F	LQFP48, HVQFN33	Low cost, low-power Cortex-M0 device with USB, on-chip power profiles		
LPC11U13	24	6		5	11**		1	1	1			2				40		50	3.3	F	LQFP48	24K Flash version of LPC11U12		
LPC11U14	32	6		5	11**		1	1	1			2				26-40		50	3.3	F	HVQFN33, LQFP48, TFBGA48	32K Flash version of LPC11U12		
LPC11C00 devices																								
LPC11C14	32	8		5	11**			1	1	1		2				42		50	3.3	F	LQFP48	32K Flash version of LPC11C12		
LPC11C12	16	8		5	11**			1	1	1		2				42		50	3.3	F	LQFP48	Cortex-M0 MCU with on-chip CAN drivers		
LPC11C24	32	8		5	11**			1	1	1		2				36		50	3.3	F	LQFP48	32K Flash version of LPC11C22		
LPC11C22	16	8		5	11**			1	1	1		2				36		50	3.3	F	LQFP48	Cortex-M0 MCU with on-chip CAN drivers and integrated CAN transceiver		
LPC11D00 devices																								
LPC11D14	32	8		5	11**			1	1			1-2				42		50	3.3	F	LQFP100	LPC1114 with integrated 40 x 4 segment LCD driver		
CSP (Chip Scale Package)																								
LPC1102	32	8		5	9**			1				1				11		50	3.3	F	WLCSP16	2.17 x 2.32 x 0.6 mm miniature package size		
LPC1200 Devices																								
LPC1227	128	8		6	13**			2	1			1				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-485		
LPC1226	96	8		6	13**			2	1			1				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-485		
LPC1225	64/80	8		6	13**			2	1			1				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-485		
LPC1224	32/48	4		6	13**			2	1			1				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-485		
LPC12D00 devices																								
LPC12D27	128	8		6	13**			2	1			1				39	1	30	3.3	F	LQFP100	LPC1227 with integrated 40 x 4 segment LCD driver		

* Includes Watchdog timer. ** Using timers.



Cortex-M3

The LPC1300, LPC1800 and LPC1700 series, based on the ARM Cortex-M3 core, feature a broad range of serial interfaces and are ideal for applications, such as eMetering, medical, POS, and industrial networking.

Type	Memory			Timers		Serial Interfaces							Analog		LCD controller	SD/MMC	I/O pins	External bus interface	RTC	Max freq. (MHz)	CPU Voltage (V)	I/O voltage (V)	Temp. range options	Package	Comment/Special features
	Flash (KB)	RAM (KB)	EEPROM	Standard Timers*	PWM channels*	Ethernet	USB	UART	I ² C	CAN	SPI	SSP/SPI	I ^S	ADC channels/ resolution											
LPC1300 devices																									
LPC1343	32	8		5	11**		1	1	1				1				28-42		1	72	3.3 V	F	LQFP48, HVQFN33	Low-cost, low-power Cortex-M3 device with FS USB device interface and pre-loaded USB drivers	
LPC1342	16	4		5	11**		1	1	1								28		1	72	3.3 V	F	HVQFN33	16K Flash / 4K RAM version of LPC1343	
LPC1313	32	8		5	11**			1	1								28-42		1	72	3.3 V	F	LQFP48, HVQFN33	Low-cost, low-power Cortex-M3 device	
LPC1311	8	2		5	11**		1	1									28		1	72	3.3 V	F	HVQFN33	8K Flash / 2K RAM version of LPC1313	
LPC177x/8x devices																									
LPC1788	512	96	4	5	6	1	1	5	3	2		3	1			109-165	8-32	1	120	3.3 V	F	LQFP208, TFBGA208, TFBGA180, LQFP144	USB host/OTG/device, QEI, 8/16/32-bit External Memory Controller (depends on package)		
LPC1787	5125	96	4	5	6		1	5	3	2		3	1			165	32	1	120	3.3 V	F	LQFP208	USB host/OTG/device, QEI		
LPC1786	256	80	4	5	6	1	1	5	3	2		3	1			165	32	1	120	3.3 V	F	LQFP208	USB host/OTG/device, QEI		
LPC1785	256	80	4	5	6		1	5	3	2		3	1			165	32	1	120	3.3 V	F	LQFP208	USB Host/OTG/device		
LPC1778	512	96	4	5	6	1	1	5	3	2		3	1			109-165	8-32	1	120	3.3 V	F	LQFP208, TFBGA208, TFBGA180, LQFP144	USB host/OTG/device, QEI, 8/16/32-bit External Memory Controller (depends on package)		
LPC1777	512	96	4	5	6		1	5	3	2		3	1			165	32	1	120	3.3 V	F	LQFP208	USB host/OTG/device, QEI		
LPC1776	256	80	4	5	6	1	1	5	3	2		3	1			141-165	16-32	1	120	3.3 V	F	LQFP208, TFBGA180	USB host/OTG/device, QEI		
LPC1774	128	40	2	5	6		1	4	3	2		3	1			109-165	8-32	1	120	3.3 V	F	LQFP208, LQFP144	USB Device Only, 8/32-bit External Memory Controller (depends on package)		
LPC175x/6x devices																									
LPC1769	512	64		6	6	1	1	4	3	2	1	2	1			70		1	120	3.3 V	F	LQFP100	120 MHz, 512K Flash with Ethernet, USB, CAN		
LPC1768	512	64		6	6	1	1	4	3	2	1	2	1			70		1	100	3.3 V	F	LQFP100, TFBGA100	Cortex-M3 version of LPC2368, adds NVIC, MPU, motor control PWM, QEI, USB FS host/OTG/device		
LPC1767	512	64		6	6	1		4	3		1	2	1			70		1	100	3.3 V	F	LQFP100	512K Flash with Ethernet		
LPC1766	256	64		6	6	1	1	4	3	2	1	2	1			70		1	100	3.3 V	F	LQFP100	256K Flash version of LPC1768, FS USB host/OTG/device		
LPC1765	256	64		6	6		1	4	3	2	1	2	1			70		1	100	3.3 V	F	LQFP100, TFBGA100	Same as LPC1766, but no Ethernet, FS USB host/OTG/device		
LPC1764	128	32		6	6	1	1	4	3	2	1	2				70		1	100	3.3 V	F	LQFP100	128K Flash / 32K RAM version of LPC1766, USB device only; no I ^S , no DAC		
LPC1763	256	64		6	6			4	3		1	2	1			70		1	100	3.3 V	F	LQFP100	256K Flash without Ethernet, USB, or CAN		
LPC1759	512	64		6	6		1	4	3	2	1	2	1			52		1	120	3.3 V	F	LQFP80	120 MHz, 512K Flash with USB FS host/OTG/device and CAN, 80-pin package		
LPC1758	512	64		6	6	1	1	4	3	2	1	2	1			52		1	100	3.3 V	F	LQFP80	80-pin version of LPC1768 with 6-channel ADC in LQFP80, FS USB host/OTG/device		
LPC1756	256	32		6	6		1	4	3	2	1	2	1			52		1	100	3.3 V	F	LQFP80	256K Flash / 32K RAM version of LPC1758, FS USB host/OTG/device, no Ethernet		
LPC1754	128	32		6	6		1	4	3	1	1	2				52		1	100	3.3 V	F	LQFP80	128K Flash version of LPC1756, FS USB host/OTG/device, 1 CAN only, no I ^S		
LPC1752	64	16		6	6		1	4	3	1	1	2				52		1	100	3.3 V	F	LQFP80	64K Flash / 16K RAM version of LPC1754, FS USB device only, no DAC		
LPC1751	32	8		6	6		1	4	3	1	1	2				52		1	100	3.3 V	F	LQFP80	32K Flash / 8K RAM version of LPC1752, US USB device only		

** Using timers.

Cortex-M3 cont'd

Type	Memory			Timers		Serial Interfaces								Analog		LCD controller SD/MMC	I/O pins	External bus interface	RTC	Max freq. (MHz)	CPU Voltage (V)	I/O voltage (V)	Temp. range options	Package	Comment/Special features	
	Flash (KB)	RAM (KB)	EEPROM	Standard Timers*	PWM channels*	State Config. Timer	Ethernet	USB	UART	I ² C	CAN	SPIFI	SSP/SPI	I ^S	ADC channels/ resolution											DAC (10-bit) channels
LPC1800 devices																										
LPC1857	1024	136	16	5	6	1	1	2	4	2	2	1	3	2	8/10 b (x2)	1	•	•	146	16-32	1	150	3.3	F	LQFP208, LBGA256/ TFBGA180	Dual-bank Flash, 1024x768 Color LCD Controller, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1853	512	136	16	5	6	1	1	2	4	2	2	1	3	2	8/10 b (x2)	1	•	•	146	16-32	1	150	3.3	F	LQFP208, LBGA256/ TFBGA180	Dual-bank Flash, 1024x768 Color LCD Controller, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012**
LPC1850		200		5	6	1	1	2	4	2	2	1	3	2	8/10 b (x2)	1	•	•	146	16-32	1	150	3.3	F	LQFP208, LBGA256/ TFBGA180	1024x768 Color LCD Controller, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q4 2011**
LPC1837	1024	136	16	5	6	1	1	2	4	2	2	1	3	2	8/10 b (x2)	1		•	146	16-32	1	150	3.3	F	LQFP144, LBGA256/ TFBGA180/100	Dual-bank Flash, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1833	512	136	16	5	6	1	1	2	4	2	2	1	3	2	8/10 b (x2)	1		•	146	16-32	1	150	3.3	F	LQFP144, LBGA256/ TFBGA180/100	Dual-bank Flash, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1830		200		5	6	1	1	2	4	2	2	1	3	2	8/10 b (x2)	1		•	146	16-32	1	150	3.3	F	LQFP144, LBGA256/ TFBGA180/100	On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q4 2011
LPC1827	1024	136	16	5	6	1		1	4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144/100, TFBGA100	Dual-bank Flash, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1825	768	136	16	5	6	1		1	4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	Dual-bank Flash, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1823	512	104	16	5	6	1		1	4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	Dual-bank Flash, On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1822	512	104	16	5	6	1		1	4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1820		168		5	6	1		1	4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144/100, TFBGA100	On-chip HS PHY, SPIFI, SCT, RTC, QEI. Available Q4 2011
LPC1817	1024	136	16	5	6	1			4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	Dual-bank Flash, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1815	768	136	16	5	6	1			4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	Dual-bank Flash, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1813	512	104	16	5	6	1			4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	Dual-bank Flash, SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1812	512	104	16	5	6	1			4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	SPIFI, SCT, RTC, QEI. Available Q1 2012
LPC1810		136		5	6	1			4	2	2	1	3	2	4-6/10 b (x2)	1			up to 64	8-16	1	150	3.3	F	LQFP144, TFBGA100	SPIFI, SCT, RTC, QEI. Available Q4 2011

* SCT peripheral can be configured as additional timers and/or PWM channels.

Cortex-M4

Based on Cortex-M4 the LPC4000 series, the world's first asymmetrical dual-core digital signal controller architecture featuring ARM Cortex-M4 and Cortex-M0 processors, brings the advantage of developing DSP and MCU applications within a single architecture and development environment. With its dual-core architecture and a set of unique configurable peripherals, the LPC4000 enables customers to develop a wide range of applications such as motor control, power management, industrial automation, robotics, medical, automotive accessories and embedded audio.

Type	M0 Coprocessor		Memory				Timers				Serial Interfaces						Analog		LCD controller	SD/MMC	I/O pins	External bus interface	RTC	Max freq. (MHz)	CPU Voltage (V)	I/O voltage (V)	Temp. range options	Package	Comment/Special features
	Floating Pt Unit	Flash (KB)	RAM (KB)	EEPROM	Standard Timers*	PWM channels*	State Config. Timer	Ethernet	USB	UART**	I ² C**	CAN	SPIFI	SSP/SPI**	I ² S**	SGPIO	ADC channels/ resolution	DAC (10-bit) channels											
LPC4300 Series																													
LPC4357	1	1	1024	136	16	5	6	1	1	2	4	2	2	1	3	2	1	8/10 b (x2)	1	•	•	146	16-32	1	180	3.3	F	LQFP208, LBGA256/TFBGA180	Dual-bank Flash, 1024x768 Color LCD Controller, HS USB PHY, QEI. Available Q1 2012
LPC4353	1	1	512	136	16	5	6	1	1	2	4	2	2	1	3	2	1	8/10 b (x2)	1	•	•	146	16-32	1	180	3.3	F	LQFP208, LBGA256/TFBGA180	Cortex-M4/M0, FPU, Dual-bank Flash, 1024x768 Color LCD Controller, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4350	1	1		264		5	6	1	1	2	4	2	2	1	3	2	1	8/10 b (x2)	1	•	•	146	16-32	1	180	3.3	F	LQFP208, LBGA256/TFBGA180	Cortex-M4/M0, FPU, 1024x768 Color LCD Controller, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q4 2011
LPC4337	1	1	1024	136	16	5	6	1	1	2	4	2	2	1	3	2	1	8/10 b (x2)	1		•	146	16-32	1	180	3.3	F	LQFP144, LBGA256/TFBGA180/100	Cortex-M4/M0, FPU, Dual-bank Flash, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4333	1	1	512	136	16	5	6	1	1	2	4	2	2	1	3	2	1	8/10 b (x2)	1		•	146	16-32	1	180	3.3	F	LQFP144, LBGA256/TFBGA180/100	Cortex-M4/M0, FPU, Dual-bank Flash, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4330	1	1		264		5	6	1	1	2	4	2	2	1	3	2	1	8/10 b (x2)	1		•	146	16-32	1	180	3.3	F	LQFP144, LBGA256/TFBGA180/100	Cortex-M4/M0, FPU, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q4 2011
LPC4327	1	1	1024	136	16	5	6	1		1	4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144/100, TFBGA100	Cortex-M4/M0, FPU, Dual-bank Flash, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4325	1	1	768	136	16	5	6	1		1	4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, Dual-bank Flash, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4323	1	1	512	104	16	5	6	1		1	4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, Dual-bank Flash, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4322	1	1	512	104	16	5	6	1		1	4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4320	1	1		200		5	6	1		1	4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144/100, TFBGA100	Cortex-M4/M0, FPU, HS USB PHY, SPIFI, SCT, SGPIO, RTC, QEI. Available Q4 2011
LPC4317	1	1	1024	136	16	5	6	1			4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, Dual-bank Flash, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4315	1	1	768	136	16	5	6	1			4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, Dual-bank Flash, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4313	1	1	512	104	16	5	6	1			4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, Dual-bank Flash, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4312	1	1	512	104	16	5	6	1			4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, SPIFI, SCT, SGPIO, RTC, QEI. Available Q1 2012
LPC4310	1	1		168		5	6	1			4	2	2	1	3	2	1	4-6/10 b (x2)	1			up to 64	8-16	1	180	3.3	F	LQFP144, TFBGA100	Cortex-M4/M0, FPU, SPIFI, SCT, SGPIO, RTC, QEI. Available Q4 2011

* SCT peripheral can be configured as additional timers and/or PWM channels. ** SGPIO peripheral can be configured as additional I²S, I²C, UART and/or SSP channels.

ARM-7

Based on an ARM7TDMI-S core operating at up to 84 MHz, these 32-bit microcontrollers deliver high performance and low-power consumption in a cost-effective package. In addition to offering integrated LCD support, they offer a wide range of peripherals, including multiple serial interfaces, Ethernet, USB device/host/OTG, CAN, and external bus options. They are designed for use in general-purpose and specialty embedded applications such as industrial control, automotive, medical, and connectivity.

Type	Memory			Timers		Serial Interfaces						Analog		LCD controller	SD/MMC	I/O pins	External bus interface	PLL	Max freq. (MHz)	CPU Voltage (V)	I/O voltage (V)	Temp. range options	Package	Comment/Special features
	Flash (KB)	RAM (KB)	EEPROM	Standard	PWM channels	Ethernet	USB	UART	I ² C	CAN	SPI/I ² S	SSP/SPI	I ² S											
LPC2100																								
LPC2194/01	256	16		5	6			2	1	4	2			4			46	•	60	1.8	3.3	H	LQFP64	LPC2124/01 upgrade with 4x CAN
LPC2158	512	40		5	6		1	2	2		1	1		8+6	1	•	38	•	60		3.3	F	LQFP100	LPC2148 with 32 x 4 LCD driver device
LPC2157	512	32		5	6			2	2		1	1		2x8	1	•	38	•	60		3.3	F	LQFP100	LPC2138 /01 with 32 x 4 LCD driver device
LPC2148	512	40		5	6		1	2	2		1	1		8+6	1	•	45	•	60		3.3	F	LQFP64	LPC2138 plus USB 2.0 FS device
LPC2146	256	40		5	6		1	2	2		1	1		8+6	1	•	45	•	60		3.3	F	LQFP64	LPC2136 plus USB 2.0 FS device
LPC2144	128	16		5	6		1	2	2		1	1		8+6	1	•	45	•	60		3.3	F	LQFP64	LPC2134 plus USB 2.0 FS device
LPC2142	64	16		5	6		1	2	2		1	1		6	1	•	45	•	60		3.3	F	LQFP64	LPC2132 plus USB 2.0 FS device
LPC2141	32	8		5	6		1	2	2		1	1		6		•	45	•	60		3.3	F	LQFP64	LPC2131 plus USB 2.0 FS device
LPC2138/01	512	32		5	6			2	2		1	1		2x8	1	•	47	•	60		3.3	F	LQFP64, HVQFN64	Dual 8-ch. 10-bit ADC, BOD, POR, 32-kHz XTAL input, VBAT, fast I/O
LPC2136/01	256	32		5	6			2	2		1	1		2x8	1	•	47	•	60		3.3	F	LQFP64	256K Flash version of LPC2138/01
LPC2134/01	128	16		5	6			2	2		1	1		2x8	1	•	47	•	60		3.3	F	LQFP64	128K Flash, 16K RAM version of LPC2138/01
LPC2132/01	64	16		5	6			2	2		1	1		8	1	•	47	•	60		3.3	F	LQFP64, HVQFN64	64K Flash, 16K RAM version of LPC2138/01, single ADC
LPC2131/01	32	8		5	6			2	2		1	1		8		•	47	•	60		3.3	F	LQFP64	32K Flash, 8K RAM version of LPC2138/01, single ADC, no DAC
LPC2129/01	256	16		5	6			2	1	2	2			4		•	46	•	60	1.8	3.3	F	LQFP64	LPC2124/01 upgrade with 2x CAN
LPC2119/01	128	16		5	6			2	1	2	2			4		•	46	•	60	1.8	3.3	F	LQFP64	LPC2114/01 upgrade with 2x CAN
LPC2109/01	64	8		5	6			2	1	1	2			4		•	46	•	60	1.8	3.3	F	LQFP65	LPC2119/01 with 64K Flash, 8K RAM, and 1x CAN
LPC2124/01	256	16		5	6			2	1		2			4		•	46	•	60	1.8	3.3	F	LQFP66	10-bit SA ADC, 2x SPI, and 256K Flash
LPC2114/01	128	16		5	6			2	1		2			4		•	46	•	60	1.8	3.3	F	LQFP67	128K Flash version of LPC2124/01
LPC2106/01	128	64		5	6			2	1		1					•	32	•	60	1.8	3.3	F	LQFP48	64K RAM, 128K Flash
LPC2105/01	128	32		5	6			2	1		1					•	32	•	60	1.8	3.3	F	LQFP48	32K RAM version of LPC2106/01
LPC2104/01	128	16		5	6			2	1		1					•	32	•	60	1.8	3.3	F	LQFP48	16K RAM version of LPC2106/01
LPC2103	32	8		6	14**			2	2		1	1		8		•	32	•	70	1.8	3.3	F	LQFP48, HVQFN48	Lowest cost, lowest power, ADC
LPC2102	16	4		6	14**			2	2		1	1		8		•	32	•	70	1.8	3.3	F	LQFP48, HVQFN48	16K Flash, 4K RAM version of LPC2103
LPC2101	8	2		6	14**			2	2		1	1		8		•	32	•	70	1.8	3.3	F	LQFP48	8K Flash, 2K RAM version of LPC2103
LPC2200 devices																								
LPC2294/01	256	16		5	6			2	1	4	2			8		•	112	•	60	1.8	3.3	H	LQFP144	LPC2214/01 upgrade with 4x CAN
LPC2292/01	256	16		5	6			2	1	2	2			8		•	112	•	60	1.8	3.3	F	LQFP144, TFBGA144	LPC2214/01 upgrade with 2x CAN
LPC2290/01		64		5	6			2	1	2	2			8		•	76	•	60	1.8	3.3	F	LQFP144	ROMless version of LPC2292/01 with 64K RAM
LPC2220		64		5	6			2	1		2			8		•	76	•	75	1.8	3.3	F	LQFP144, TFBGA144	64K RAM version of LPC2210/01
LPC2214/01	256	16		5	6			2	1		2			8		•	112	•	60	1.8	3.3	F	LQFP144	External Bus, 4 Chip Selects, 10-bit SA ADC, 256K Flash
LPC2212/01	128	16		5	6			2	1		2			8		•	112	•	60	1.8	3.3	F	LQFP144	128K Flash version of LPC2214/01
LPC2210/01		16		5	6			2	1		2			8		•	76	•	60	1.8	3.3	F	LQFP144	ROMless version of LPC2214/01

* Includes Watchdog timer and real-time clock. ** Using timers 0-3.

ARM-7 cont'd

Type	Memory			Timers		Serial Interfaces							Analog		LCD controller	SD/MMC	I/O pins	External bus interface	PLL	Max freq. (MHz)	CPU Voltage (V)	I/O voltage (V)	Temp. range options	Package	Comment/Special features
	Flash (KB)	RAM (KB)	EEPROM	Standard	PWM channels	Ethernet	USB	UART	I ² C	CAN	SPI	SSP/SPI	FS	ADC channels/ resolution											
LPC2300 devices																									
LPC2388	512	98		6	6	1	1	4	3	2	1	2	1	8	1	•	104	•	•	72	3.3	F	LQFP144	LPC2378 with 98K SRAM and USB host/OTG/device	
LPC2387	512	98		6	6	1	1	4	3	2	1	2	1	6	1	•	70		•	72	3.3	F	LQFP100	LPC2368 with 98K SRAM and USB host/OTG/device	
LPC2378	512	58		6	6	1	1	4	3	2	1	2	1	8	1	•	104	•	•	72	3.3	F	LQFP144	On-chip 4 MHz RC-Osc, GP DMA, RTC w/ 2K batt. RAM USB 2.0 FS device w/ PHY, DMA and 4K RAM; UART 3 w/ IrDA; MiniBus (8-bit)	
LPC2377	512	58		6	6	1		4	3		1	2	1	8	1	•	104	•	•	72	3.3	F	LQFP144	LPC2378 without USB or CAN	
LPC2368	512	58		6	6	1	1	4	3	2	1	2	1	6	1	•	70		•	72	3.3	F	LQFP100, TFBGA100	100-pin version of LPC2378 with USB device, no external bus	
LPC2367	512	58		6	6	1		4	3		1	2	1	6	1	•	70		•	72	3.3	F	LQFP100	LPC2368 without USB or CAN	
LPC2366	256	58		6	6	1	1	4	3	2	1	2	1	6	1		70		•	72	3.3	F	LQFP100	256K Flash version of LPC2368 with USB device, no SD/MMC	
LPC2365	256	58		6	6	1		4	3		1	2	1	6	1		70		•	72	3.3	F	LQFP100	LPC2366 without USB or CAN	
LPC2364	128	34		6	6	1	1	4	3	2	1	2	1	6	1		70		•	72	3.3	F,H	LQFP100 TFBGA100	128K Flash / 34K RAM version of LPC2368 with USB device, no SD/MMC	
LPC2362	128	58		6	6	1	1	4	3	2	1	2	1	6	1		70		•	72	3.3	F	LQFP100	LPC2364 with USB host/OTG/device and more RAM	
LPC2361	64	34		6	6		1	4	3	2	1	2	1	6	1		70		•	72	3.3	F	LQFP100	64K Flash, USB host/OTG/device and CAN controller	
LPC2400 devices																									
LPC2478	512	98		6	12	1	2	4	3	2	1	2	1	8	1	•	160	•	•	72	3.3	F	LPFP208, TFBGA208	LPC2468 with XGA LCD controller, USB device/host/OTG	
LPC2470		98		6	12	1	2	4	3	2	1	2	1	8	1	•	160	•	•	72	3.3	F	LPFP208, TFBGA208	LPC2468 with XGA LCD controller, USB device/host/OTG	
LPC2468	512	98		6	12	1	2	4	3	2	1	2	1	8	1	•	160	•	•	72	3.3	F	LPFP208, TFBGA208	On-chip 4-MHz RC-Osc, GP DMA, RTC w/ 2K batt. RAM 2 PWM blocks; USB 2.0 FS host/OTG/device, DMA and 4K RAM; UART 3 w/ IrDA; 32-bit ext. bus	
LPC2460		98		6	12	1	2	4	3	2	1	2	1	8	1	•	160	•	•	72	3.3	F	LPFP208, TFBGA208	Flashless LPC2468	
LPC2458	512	98		6	12	1	2	4	3	2	1	2	1	8	1	•	160	•	•	72	3.3	F	TFBGA180	LPC2468 with 16-bit external memory interface, USB device/host/OTG	
LPC2420		82		6	12		2	4	3		1	2	1	8	1	•	160	•	•	72	3.3	F	LPFP208, TFBGA208	Flashless USB device/host/OTG controller, USB device/host/OTG	
LPC2300 devices																									
LPC2388	512	98		6	6	1	1	4	3	2	1	2	1	8	1	•	104	•	•	72	3.3	F	LQFP144	LPC2378 with 98K SRAM and USB device/host/OTG	
LPC2387	512	98		6	6	1	1	4	3	2	1	2	1	6	1	•	70		•	72	3.3	F	LQFP100	LPC2378 with 98K SRAM and USB device/host/OTG	
LPC2378	512	58		6	6	1	1	4	3	2	1	2	1	8	1	•	104	•	•	72	3.3	F	LQFP144	On-chip 4-MHz RC-Osc, GP DMA, RTC w/ 2K batt. RAM USB 2.0 FS device w/ PHY, DMA and 4K RAM; UART 3 w/ IrDA; MiniBus (8-bit)	
LPC2377	512	58		6	6	1		4	3		1	2	1	8	1	•	104	•	•	72	3.3	F	LQFP144	LPC2378 without USB or CAN	
LPC2368	512	58		6	6	1	1	4	3	2	1	2	1	6	1	•	70		•	72	3.3	F	LQFP100, TFBGA100	100-pin version of LPC2378 with USB device, no external bus	
LPC2367	512	58		6	6	1		4	3		1	2	1	6	1	•	70		•	72	3.3	F	LQFP100	LPC2368 without USB or CAN	
LPC2366	256	58		6	6	1	1	4	3	2	1	2	1	6	1		70		•	72	3.3	F	LQFP100	256K Flash version of LPC2368 with USB device, no SD/MMC	
LPC2365	256	58		6	6	1		4	3		1	2	1	6	1		70		•	72	3.3	F	LQFP100	LPC2366 without USB or CAN	
LPC2364	128	34		6	6	1	1	4	3	2	1	2	1	6	1		70		•	72	3.3	F,H	LQFP100, TFBGA100	128K Flash / 34K RAM version of LPC2368 with USB device, no SD/MMC	
LPC2362	128	58		6	6	1	1	4	3	2	1	2	1	6	1		70		•	72	3.3	F	LQFP100	LPC2364 with USB host/OTG/device and more RAM	
LPC2361	64	34		6	6			4	3	2	1	2	1	6	1		70		•	72	3.3	F	LQFP100	64K Flash, USB host/OTG/device and CAN controller	
LH7 devices																									
LH79525		16		5	3	1	1	3	1		1	1	1	10		•	86	•	•	76	1.8	3.3	F	LQFP176	ARM720T MCU with color LCD controller. Touchscreen interface. USB 2.0 device. IrDA. SDRAM controller. MMU. DMA. NAND Flash boot. 16-bit external data bus.
LH79524		16		5	3	1	1	3	1		1	1	1	10		•	104	•	•	76	1.8	3.3	F	LFBGA208	ARM720T MCU with color LCD controller. Touchscreen interface. USB 2.0 device. IrDA. SDRAM controller. MMU. DMA. NAND Flash boot. 16-bit external data bus.
LH79520		32		6	2			3			1	1				•	64	•	•	77	1.8	3.3	F	LQFP176	ARM720T MCU with color LCD controller. IrDA. SDRAM controller. MMU. 32-bit external data bus
LH79511		32		5	3			3			1	1		8		•	76	•	•	84	1.8	3.3	F	LQFP144	Color LCD controller. Touchscreen interface. DMA controller. 5V tolerant I/O. 16-bit external bus.
LH79501		32		5	3			3		1	1	1		8		•	76	•	•	84	1.8	3.3	F	LQFP144	Color LCD controller. Touchscreen interface. DMA controller. 5V tolerant I/O. 16-bit external bus.

ARM-9

Based on an ARM968E-S core operating at up to 125 MHz, these 32-bit microcontrollers deliver the highest Flash performance on any available ARM MCU. The on-chip peripherals include USB OTG/ host/device, motor control PWM/QEI, 2 x 3 V and 1 x 5 V ADC, EEPROM, I²C, Q-SPI, and external memory interfaces. The MCUs are designed for use in general-purpose and specialty embedded applications such as high-speed document printers/scanners, industrial control, and motor control.

Type	Memory			Timers		Serial Interfaces						Analog		LCD controller	SD/MMC	I/O pins	External bus interface	PLL	Max freq. (MHz)	CPU Voltage (V)	I/O voltage (V)	Temp. range options	Package	Comment/Special features		
	Flash (KB)	RAM (KB)	EEPROM	Standard	Timers	Ethernet	USB	UART	I ² C	CAN	SPI	SSP/SPI	I ² S												ADC channels/ resolution	DAC (10-bit) channels
LPC2900																										
LPC2939	768	56	16	7	24		2	4	2	2	3		24			152	•	•	125	1.8	3.3	F	LQFP208	ARM968E-S MCU with USB host/OTG/device, 32K I- & D-TCM, motor control, GP DMA, 16 KB EEPROM		
LPC2930		56	16	7	24		2	4	2	2	3		24			152	•	•	125	1.8	3.3	F	LQFP208	Flashless version of LPC2939		
LPC2929	768	56	16	7	24		1	4	2	2	3		24			104	•	•	125	1.8	3.3	F	LQFP144	LPC2939 with 144 pins and without USB host		
LPC2927	512	56	16	7	24		1	4	2	2	3		24			104	•	•	125	1.8	3.3	F	LQFP144	LPC2929 with 512K Flash, USB device/OTG		
LPC2926	256	56	16	7	24		1	4	2	2	3		24			104	•	•	125	1.8	3.3	F	LQFP144	LPC2927 with 256K Flash		
LPC2925	512	40	16	7	24		1	4	2	2	3		16			60	•	•	125	1.8	3.3	F	LQFP100			
LPC2923	256	24	16	7	24		1	4	2	2	3		16			60	•	•	125	1.8	3.3	F	LQFP100	LPC2925 with 256K Flash		
LPC2921	128	24	16	7	24		1	4	2	2	3		16			60	•	•	125	1.8	3.3	F	LQFP100	LPC2923 with 128K Flash, USB device		
LPC2919/01	768	56	16	7	24			4	2	2	3		16			108	•	•	125	1.8	3.3	F	LQFP144	ARM968E-S MCU with 2 LIN master controllers, 16K I-TCM, 16K D-TCM		
LPC2917/01	521	56	16	7	24			4	2	2	3		16			108	•	•	125	1.8	3.3	F	LQFP144	LPC2919/01 with 512K Flash		
LPC3100																										
LPC3154		192		4	1		1	1	1		1	3	1	3		•	•	157	•	•	180	1.2	1.8/2.8/3.3	F	TFBGA208	LPC3152 with a Decryption Engine & Secure Boot
LPC3152		192		4	1		1	1	1		1	3	1	3		•	•	157	•	•	180	1.2	1.8/2.8/3.3	F	TFBGA208	Stereo CODEC with Class-AB headphone amplifier, power supply unit, battery charger, unique ID, OTP, HS USB 2.0 OTG with on-chip PHY, NAND Flash controller, MMC/SDHC/SDIO/CE-ATA, 6800/8080/serial LCD interface
LPC3143		192		4	1		1	1	2		2	4	2	4		•	•	97	•	•	270	1.2	1.8/2.8/3.3	F	TFBGA180	LPC3141 with a Decryption Engine & Secure Boot
LPC3141		192		4	1		1	1	2		2	4	2	4		•	•	97	•	•	270	1.2	1.8/2.8/3.3	F	TFBGA180	HS USB 2.0 OTG with on-chip PHY, NAND Flash controller, MMC/SDHC/SDIO/CE-ATA, 6800/8080 LCD interface, random number generator, unique ID, OTP
LPC3131		192		4	1		1	1	2		2	4	2	4		•	•	97	•	•	180	1.2	1.8/2.8/3.3	F	TFBGA180	LPC3130 with 192K SRAM, HS USB host/OTG/device
LPC3130		96		4	1		1	1	2		2	4	2	4		•	•	97	•	•	180	1.2	1.8/2.8/3.3	F	TFBGA180	HS USB 2.0 host/OTG/device with on-chip PHY, NAND Flash controller with 8-bit ECC, MMC/SDHC/SDIO/CE-ATA, 6800/8080/serial LCD interface, random number generator
LPC3180/01		64		4	1		1	7	2			3	3			•	•	55	•	•	208	1.2	1.8/2.8/3.0	F	LFBGA320	VFP unit, NAND Flash, SDRAM/DDR, USB 2.0 FS host/OTG device
LPC3200																										
LPC3250		256		8	11	1	1	7	2	2	2	2	2	3		•	•	87	•	•	266/208	1.35/1.2	1.8/2.8/3.0	F	LFBGA296	VFP unit, NAND Flash, SRAM/SDRAM/DDR, USB 2.0 FS host/OTG/device, 24-bit color LCD controller and touchscreen controller, keypad interface, and 0.9 V low-power mode
LPC3240		256		8	11	1	1	7	2	2	2	2	2	3		•	•	87	•	•	266/208	1.35/1.2	1.8/2.8/3.0	F	LFBGA296	VFP unit, NAND Flash, SRAM/SDRAM/DDR, USB 2.0 FS host/OTG/device, keypad interface, and 0.9 V low-power mode
LPC3230		256		8	11		1	7	2	2	2	2	2	3		•	•	87	•	•	266/208	1.35/1.2	1.8/2.8/3.0	F	LFBGA296	VFP unit, NAND Flash, SRAM/SDRAM/DDR, USB 2.0 FS host/OTG/device, 24-bit color LCD controller and touchscreen controller, keypad interface, and 0.9 V low-power mode
LPC3220		128		8	11		1	7	2	2	2	2	2	3		•	•	87	•	•	266/208	1.35/1.2	1.8/2.8/3.0	F	LFBGA296	VFP unit, NAND Flash, SRAM/SDRAM/DDR, USB 2.0 FS host/OTG/device, keypad interface, and 0.9 V low-power mode
LH7A																										
LH7A404		80 Kb Frame Buffer		5	2			1	3		1			10		•	•	64	•	•	266	1.8	3.3	F	LFBGA324	Integrated LCD controller, IrDA touchscreen interface. Touchscreen controller. MMU. USB 2.0 FS host/device. 32-bit external data bus. CompactFlash. SDRAM controller. DMA controller. PCMCIA, BMI, PS/2, MMCSd.
LH7A400		80 Kb Frame Buffer		5				1	3		1					•	•	64	•	•	245	1.8	3.3	F	BGA256, LFBGA256	Integrated LCD controller. IrDA. MMU. USB 2.0 FS device. 32-bit external data bus. CompactFlash. SDRAM controller. MMC, PCMCIA, BMI.



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