

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 LPC100XL 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 (KB)	Standard Timers*	PWM channels**	Ethernet	USB	UART	I ² C	CAN	SPI	SSP/SPI	I ² S	ADC channels/ resolution											
LPC1100XL devices																									
LPC1115	64	8		5	11**			1	1			2		8/10 b			42			50	3.3	F	LQFP48	64K Flash version of the LPC1114	
LPC1114	32	4-8		5	11**			1	1			1-2		8/10 b			28/42			50	3.3	F	TSSOP28, DIP28, HVQFN33, LQFP48	On-chip power profile, I/O 5V tolerant	
LPC1113	24	4-8		5	11**			1	1			1-2		8/10 b			28/42			50	3.3	F	HVQFN33, LQFP48	On-chip power profile, I/O 5V tolerant	
LPC1112	16	2-4		5	11**			1	1			1		8/10 b			28			50	3.3	F	TSSOP20, TSSOP28, HVQFN33	On-chip power profile, I/O 5V tolerant	
LPC1111	8	2-4		5	11**			1	1			1		8/10 b			28			50	3.3	F	TSSOP20, HVQFN33	On-chip power profile, I/O 5V tolerant	
LPC1110	4	1		5	11**			1	1			1		5/10 b			16			50	3.3	F	SO20	On-chip power profile, I/O 5V tolerant	
LPC11U00 devices																									
LPC11U12	16	6		5	11**			1	1	1		2		8/10 b			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		8/10 b			40			50	3.3	F	LQFP48	24K Flash version of LPC11U12	
LPC11U14	32	6		5	11**			1	1	1		2		8/10 b			26/40			50	3.3	F	HVQFN33, LQFP48, TFBGA48	32K Flash version of LPC11U12	
LPC11U20 devices																									
LPC11U23	24	8	1	5	11**			1	1			2		8/10 b			40			50	3.3	F	LQFP48	ROM Drivers- USB drivers (HID, MSC, CDC), Power Profiles, 32-b Divide Libraries	
LPC11U24	32	8	2	5	11**			1	1			2		8/10 b			26/40			50	3.3	F	HVQFN33 (5x5), TFBGA48, LQFP48	ROM Drivers- USB drivers (HID, MSC, CDC), Power Profiles, 32-b Divide Libraries	
LPC11U24	32	10	4	5	11**			1	1			2		8/10 b			26/40/54			50	3.3	F	LQFP64, LQFP48, HVQFN33	ROM Drivers- USB drivers (HID, MSC, CDC), Power Profiles, 32-b Divide Libraries	
LPC11E00 devices																									
LPC11E11	8	4	512b	5	11**			1	1			2		8/10 b			28			50	3.3	F	HVQFN33	ROM Drivers- Power Profiles, 32-b Divide Libraries, EEPROM	
LPC11E12	16	6	1	5	11**			1	1			2		8/10 b			40			50	3.3	F	LQFP48	ROM Drivers- Power Profiles, 32-b Divide Libraries, EEPROM	
LPC11E13	24	8	2	5	11**			1	1			2		8/10 b			40			50	3.3	F	LQFP48	ROM Drivers- Power Profiles, 32-b Divide Libraries, EEPROM	
LPC11E14	32	10	4	5	11**			1	1			2		8/10 b			28/40/54			50	3.3	F	LQFP64, LQFP48, HVQFN33	ROM Drivers- Power Profiles, 32-b Divide Libraries, EEPROM	

* Includes Watchdog timer. ** Using timers.



Cortex-M0 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 (KB)	Standard Timers*	PWM channels**	Ethernet	USB	UART	I ² C	CAN	SPI	SSP/SPI	I ² S	ADC channels/resolution											
LPC11C00 devices																									
LPC11C14	32	8		5	11**			1	1	1		2		8/10 b				42		50	3.3	F	LQFP48	32K Flash version of LPC11C12	
LPC11C12	16	8		5	11**			1	1	1		2		8/10 b				42		50	3.3	F	LQFP48	Cortex-M0 MCU with on-chip CAN drivers	
LPC11C24	32	8		5	11**			1	1	1		2		8/10 b				36		50	3.3	F	LQFP48	32K Flash version of LPC11C22	
LPC11C22	16	8		5	11**			1	1	1		2		8/10 b				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		8/10 b				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		5/10 b				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		8/10 b				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-48S	
LPC1226	96	8		6	13**			2	1			1		8/10 b				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-48S	
LPC1225	64/80	8		6	13**			2	1			1		8/10 b				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-48S	
LPC1224	32/48	4		6	13**			2	1			1		8/10 b				39/55	1	30	3.3	F	LQFP48, LQFP64	Additional DMA, CRC, 2x comparators, RS-48S	
LPC12D00 devices																									
LPC12D27	128	8		6	13**			2	1			1		8/10 b				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 (KB)	Standard Timers*	PWM channels*	Ethernet	USB	UART	I ² C	CAN	SPIFI	SSP/SPI	I ² S	ADC channels/ resolution											
LPC1300 devices																									
LPC1347	64	12	4	5	11**		1	1	1			2		8/12 b			28-51		1	72	3.3	F	LQFP64, LQFP48, HVQFN33	FS USB Device, USB & EEPROM drivers and Power Profiles in ROM, USART, Smart Card Interface	
LPC1346	48	10	4	5	11**		1	1	1			2		8/12 b			28-51		1	72	3.3	F	LQFP64, LQFP48, HVQFN33	FS USB Device, USB & EEPROM drivers and Power Profiles in ROM, USART, Smart Card Interface	
LPC1345	32	10	4	5	11**		1	1	1			2		8/12 b			28-51		1	72	3.3	F	LQFP64, LQFP48, HVQFN33	FS USB Device, USB & EEPROM drivers and Power Profiles in ROM, USART, Smart Card Interface	
LPC1343	32	8		5	11**		1	1	1			1		8/10 b			28-42		1	72	3.3	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			1		8/10 b			28		1	72	3.3	F	HVQFN33	16K Flash / 4K RAM version of LPC1343	
LPC1317	64	10	4	5	11**			1	1			2		8/12 b			28-51		1	72	3.3	F	LQFP64, LQFP48, HVQFN33	USART, Smart Card Interface, EEPROM Drivers and Power Profiles in ROM	
LPC1316	48	8	4	5	11**			1	1			2		8/12 b			28-51		1	72	3.3	F	LQFP64, LQFP48, HVQFN33	USART, Smart Card Interface, EEPROM Drivers and Power Profiles in ROM	
LPC1315	32	8	2	5	11**			1	1			2		8/12 b			28-51		1	72	3.3	F	LQFP64, LQFP48, HVQFN33	USART, Smart Card Interface, EEPROM Drivers and Power Profiles in ROM	
LPC1313	32	8		5	11**			1	1			1		8/10 b			28-42		1	72	3.3	F	LQFP48, HVQFN33	Low-cost, low-power Cortex-M3 device	
LPC1311	8	2		5	11**			1	1			1		8/10 b			28		1	72	3.3	F	HVQFN33	8K Flash / 2K RAM version of LPC1313	

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

** Using timers.

Cortex-M3 cont'd

Type	Memory			Timers		State Config. Timer	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 (KB)	Standard Timers*	PWM channels*		Ethernet	USB	UART	I ² C	CAN	SPIFI	SSP/SPI	I ² S	ADC channels/ resolution											
LPC177x/8x devices																										
LPC1788	512	96	4	5	6		1	1	5	3	2		3	1	8/12 b	1	1	1	109-165	8-32	1	120	3.3	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	8/12 b	1	1	1	165	32	1	120	3.3	F	LQFP208	USB host/OTG/device, QEI
LPC1786	256	80	4	5	6		1	1	5	3	2		3	1	8/12 b	1	1	1	165	32	1	120	3.3	F	LQFP208	USB host/OTG/device, QEI
LPC1785	256	80	4	5	6			1	5	3	2		3	1	8/12 b	1	1	1	165	32	1	120	3.3	F	LQFP208	USB Host/OTG/device
LPC1778	512	96	4	5	6		1	1	5	3	2		3	1	8/12 b	1		1	109-165	8-32	1	120	3.3	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	8/12 b	1		1	165	32	1	120	3.3	F	LQFP208	USB host/OTG/device, QEI
LPC1776	256	80	4	5	6		1	1	5	3	2		3	1	8/12 b	1		1	141-165	16-32	1	120	3.3	F	LQFP208, TFBGA180	USB host/OTG/device, QEI
LPC1774	128	40	2	5	6			1	4	3	2		3	1	8/12 b	1			109-165	8-32	1	120	3.3	F	LQFP208, LQFP144	USB Device Only, 8/32-bit External Memory Controler (depends on package)
LPC1773	128	40	2	5	6			1	4	3	2	1	3	1	8/12 b	1			109-165		1	120	3.3	F	LQFP144	USB Device Only
LPC175x/6x devices																										
LPC1769	512	64		6	6		1	1	4	3	2		2	1	8/12 b	1			70		1	120	3.3	F	LQFP100	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1768	512	64		6	6		1	1	4	3	2		2	1	8/12 b	1			70		1	100	3.3	F	LQFP100, TFBGA100	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1767	512	64		6	6		1		4	3			2	1	8/12 b	1			70		1	100	3.3	F	LQFP100	QEI, Motor Control PWM
LPC1766	256	64		6	6		1	1	4	3	2		2	1	8/12 b	1			70		1	100	3.3	F	LQFP100	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1765	256	64		6	6			1	4	3	2		2	1	8/12 b	1			70		1	100	3.3	F	LQFP100, TFBGA100	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1764	128	32		6	6		1	1	4	3	2		2		8/12 b				70		1	100	3.3	F	LQFP100	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1763	256	64		6	6				4	3			2	1	8/12 b	1			70		1	100	3.3	F	LQFP100	QEI, Motor Control PWM
LPC1759	512	64		6	6			1	4	3	2		2	1	6/12 b	1			52		1	120	3.3	F	LQFP80	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1758	512	64		6	6		1	1	4	3	2		2	1	6/12 b	1			52		1	100	3.3	F	LQFP80	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1756	256	32		6	6			1	4	3	2		2	1	6/12 b	1			52		1	100	3.3	F	LQFP80	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1754	128	32		6	6			1	4	3	1		2		6/12 b	1			52		1	100	3.3	F	LQFP80	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1752	64	16		6	6			1	4	3	1		2		6/12 b				52		1	100	3.3	F	LQFP80	FS USB Host/OTG/Device, QEI, Motor Control PWM
LPC1751	32	8		6	6			1	4	3	1		2		6/12 b				52		1	100	3.3	F	LQFP80	FS USB Host/OTG/Device, QEI, Motor Control PWM
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	180	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	180	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	180	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	180	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	180	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	180	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	180	3.3	F	LQFP144, 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	180	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	180	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	180	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	180	3.3	F	LQFP144, 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	180	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	180	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	180	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	180	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	180	3.3	F	LQFP144, TFBGA100	SPIFI, SCT, RTC, QEI. Available Q4 2011

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

** Using timers.

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	Floating Pt Unit	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 (KB)	Standard Timers*	PWM channels*	State Config. Timer	Ethernet	USB	UART**	I ² C**	CAN	SPIFI	SSP/SPI**	I ² S**	SGPIO	ADC channels/ resolution											
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	204	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	204	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	204	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	204	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	204	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	204	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	204	3.3	F	LQFP144, 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	204	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	204	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	204	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	204	3.3	F	LQFP144, 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	204	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	204	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	204	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	204	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	204	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 (KB)	Standard Timers	PWM channels	Ethernet	USB	UART	I ² C	CAN	SPI/I ² S	SSP/SPI	I ² S	ADC channels/ resolution											
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	LPFP100	LPC2148 with 32 x 4 LCD driver device
LPC2157	512	32		5	6			2	2		1	1		2x8	1	•	38		•	60	3.3		F	LPFP100	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 (KB)	Standard	Timers	PWM channels	Ethernet	USB	UART	I ² C	CAN	SPI	SSP/SPI	I ² S	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 (KB)	Standard Timers	PWM channels	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 controler 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 controler 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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