LPC24xx

Core: ARM7

Built for connectivity, these powerful yet cost-effective microcontrollers support 10/100 Ethernet, full-speed (12 Mb/s) USB 2.0, USB OTG, and CAN 2.0B. They have 512 KB of ISP/IAP Flash, 98 KB of SRAM, an external memory interface, 10-bit A/D and D/A converters, an Internal RC oscillator, and an SD memory-card interface on two high-speed buses to eliminate communication bandwidth bottlenecks. The LPC247x adds a QVGA LCD controller.

Features ▸

- 72 MHz, 32-bit ARM7TDMI-S with dual AHB buses
- External interface for SDRAM, SRAM, and Flash
- 10/100 Ethernet MAC interface with DMA and MII/RMII interface
- USB 2.0 full speed OTG/Device/OHCI plus PHY and DMA
- Available with LCD STN/TFT graphics controller
- Wide range of peripherals, including CAN, I²S, ADC, PWM, and more

Benefits ▸

- High performance device at great price point
- Variety of communications peripherals for maximum flexibility
- Addition of LCD controller eliminates the need for external components and saves overall systems costs
- Vector floating point great addition for math intensive applications

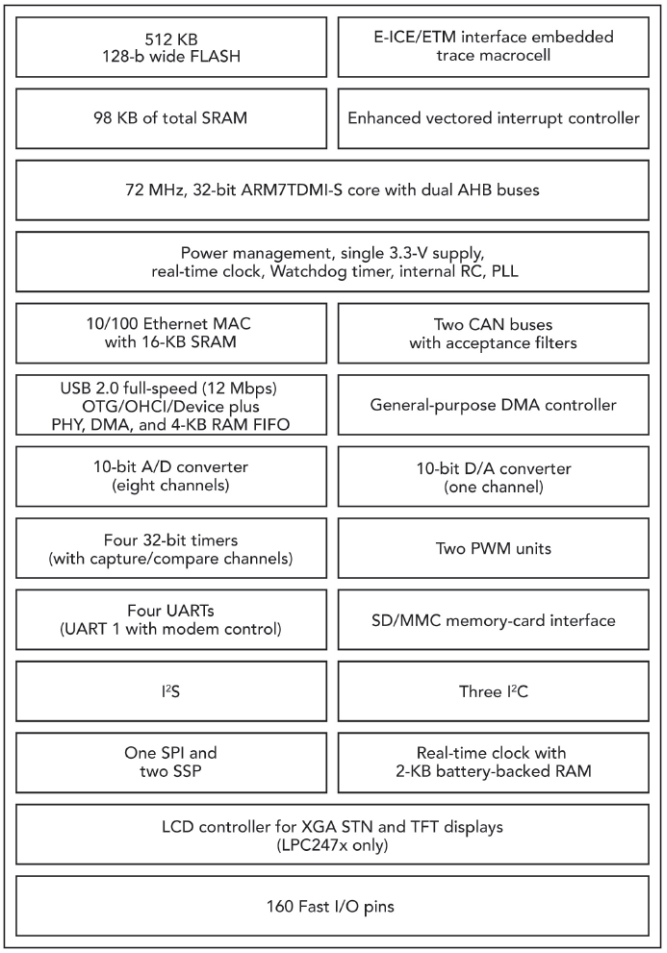
LPC291x Selection Guide ▸

Type	Memory			Serial interfaces								LCD Controller	ADC/DAC Options		Package
	Flash (KB)	SRAM (KB)	External Interface	10/100 Ethernet	USB 2.0 (OTG/LHC/ DVD)	CAN	UART	I²C	I²S	SPI/ SSP	SD/ MMC		A/D Converter Channels (10-Bit)	D/A Converter Channels (10-Bit)	
LPC2470FBD208	–	98	Full 32-bit	1 (MII/RMII)	1	2	4	3	1	3	1	1	8	1	LQFP208
LPC2470FET208c	–	98	Full 32-bit	1 (MII/RMII)	1	2	4	3	1	3	1	1	8	1	TFBGA208
LPC2478FBD208	512	98	Full 32-bit	1 (MII/RMII)	1	2	4	3	1	3	1	1	8	1	LQFP208
LPC2478FET208	512	98	Full 32-bit	1 (MII/RMII)	1	2	4	3	1	3	1	1	8	1	TFBGA208

Development Tools Matrix ▸

Type	Description	Part Number
Development Board	Embedded Artist development kit with 3.5" LCD display with touchscreen capability, connectors for USB, Ethernet, CAN, SD/MMC and JTAG, a full modem RS323 port, a USB-to-serial bridge, and a 192-pin expansion connector	OM11015

LPC24xx Block Diagram



For more information on Arrow's ARM solutions, pricing, and availability, **visit www.arrownac.com/arm** or call **1-866-910-3650**.

LPC32x0 Processor Family

Core: ARM9

The LPC32x0 family, built around a 90-nm 208 MHz ARM926EJ CPU core and a Vector Floating Point (VFP) coprocessor is NXP Semiconductors' latest family of 32-bit microcontrollers. Designed for flexibility in applications that require fast, simultaneous communications, it combines high performance, low-power consumption and a myriad of peripherals such as I^2C, I^2S, SPI, SSP, UARTs, USB OTG, SD, PWMs and A/D with Touch Screen interfaces. The family supports DDR, SDR, SRAM and Flash memory devices and provides the option of booting-up from NAND Flash, SPI memory, UART or SRAM. The LPC3250, the most highly integrated device in the series, adds a 10/100 Ethernet MAC and a 24-bit LCD controller that supports STN and TFT panels. For affordable innovation in a variety of applications including consumers, connectivity, industrial control, automotive, medical and networking, you should turn to NXP's LPC32x0 family. Because it's all about having options, and having the tools you need to bring your best ideas to life.

Features ▸

- 208 MHz, 32-bit ARM9EJ-S core
- Vector floating point co-processor
- Up to 256 KB of internal SRAM and 32 KB I I-cache/32 KB D-cache
- External memory controller for DDR and SDR SDRAM, SRAM, and Flash
- Available 10/100 Ethernet MAC
- USB OTG with full-speed host and device capabilities
- Available 24-bit LCD controller supports STN and TFT panels
- Comprehensive set of serial interfaces
- SD memory-card interface

Benefits ▸

- High performance device at great price point
- Variety of communications peripherals for maximum flexibility
- Addition of LCD controller eliminates the need for external components and saves overall systems costs
- Vector Floating Point great addition for math intensive applications

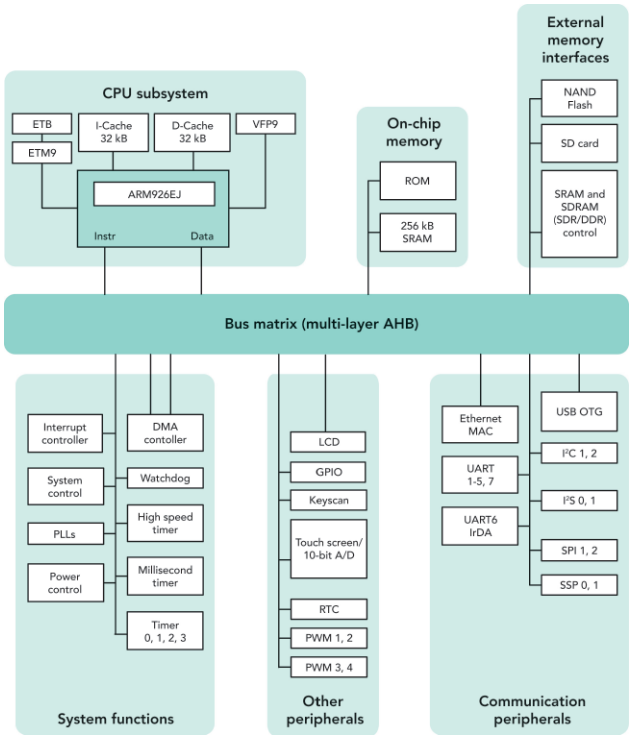
Family Comparative Features ▸

Product	SRAM (KB)	10/100 Ethernet	LCD Controller	USB Host, Device, OTG	Package
LPC3220	128	0	0	1	TFBGA296
LPC3230	256	0	1	1	TFBGA296
LPC3240	256	1	0	1	TFBGA296
LPC3250	256	1	1	1	TFBGA296

Development Tools Matrix ▸

Type	Description	Part Number
Development Board	Phytec development kit which includes Ethernet, USB and Serial cables, support for Grayhills 12 key keyboard, printed schematics, electronic documentation, AC power adaptor and optional LCD add-on	OM11016

LPC32x0 Block Diagram



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