



Flashless 16-bit/32-bit microcontroller; Ethernet, CAN, LCD, USB 2.0 device/host/OTG, external memory interface

LPC2470FBD208

Not Recommended for New Designs

This page contains information on a product that is not recommended for new designs.

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NXP Semiconductors designed the LPC2470 microcontroller, powered by the Arm7TDMI-S™ core, to be a highly integrated microcontroller for a wide range of applications that require advanced communications and high quality graphic displays. The LPC2470 microcontroller is flashless. The LPC2470, with real-time debug interfaces that include both JTAG and embedded trace, can execute both 32-bit Arm® and 16-bit Thumb instructions.

The LPC2470 microcontroller incorporates an LCD controller, a 10/100 Ethernet Media Access Controller (MAC), a USB full-speed device/host/OTG controller with 4 kB of endpoint RAM, four UARTs, two Controller Area Network (CAN) channels, an SPI interface, two Synchronous Serial Ports (SSP), three I²C interfaces, and an I2S interface. Supporting this collection of serial communications interfaces are the following feature components; an on-chip 4 MHz internal oscillator, 98 kB of total RAM consisting of 64 kB of local SRAM, 16 kB SRAM for Ethernet, 16 kB SRAM for general purpose DMA, 2 kB of battery powered SRAM, and an External Memory Controller (EMC). These features make this device optimally suited for portable electronics and Point-of-Sale (POS) applications. Complementing the many serial communication controllers, versatile clocking capabilities, and memory features are various 32-bit timers, a 10-bit ADC, 10-bit DAC, two PWM units, and up to 160 fast GPIO lines. The LPC2470 connects 64 of the GPIO pins to the hardware based Vector Interrupt Controller (VIC), allowing the external inputs to generate edge-triggered interrupts. All of these features make the LPC2470 particularly suitable for industrial control and medical systems.

Block diagram: LPC2470FBD208, LPC2470FET208 Block Diagram



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