Single-chip 16-bit/32-bit micro; 512 kB flash, Ethernet, CAN, LCD, USB 2.0 device/host/OTG, external memory interface

LPC2478FBD208

Not Recommended for New Designs

このページでは、新規設計を推奨しない製品に関する情報を掲載しています。

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NXP® Semiconductors designed the LPC2478 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 LPC2478 microcontroller has 512 kB of on-chip high-speed flash memory. This flash memory includes a special 128-bit wide memory interface and accelerator architecture that enables the CPU to execute sequential instructions from flash memory at the maximum 72 MHz system clock rate. This feature is available only on the LPC2000 Arm® microcontroller family of products. The LPC2478, with real-time debug interfaces that include both JTAG and embedded trace, can execute both 32-bit Arm and 16-bit Thumb instructions.

The LPC2478 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 LPC2478 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 LPC2478 particularly suitable for industrial control and medical systems.

Block diagram: LPC2478FBD208, LPC2478FET208 Block Diagram

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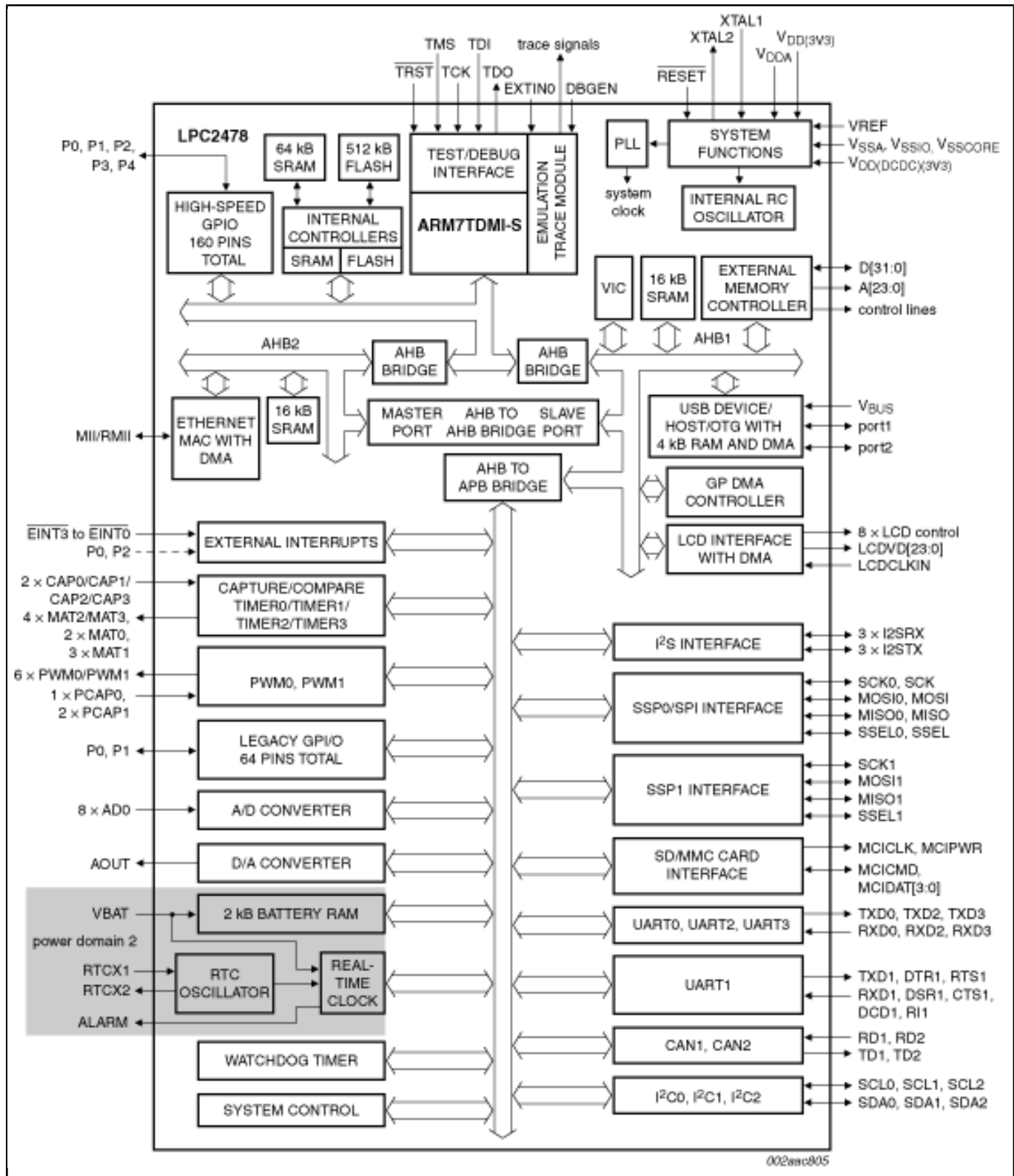
View additional information for Single-chip 16-bit/32-bit micro; 512 kB flash, Ethernet, CAN, LCD, USB 2.0 device/host/OTG, external memory interface.

Note: The information on this document is subject to change without notice.

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