Single-chip 16-bit/32-bit microcontrollers; up to 512 kB flash with ISP/IAP, USB 2.0 full-speed device, 10-bit ADC and DAC
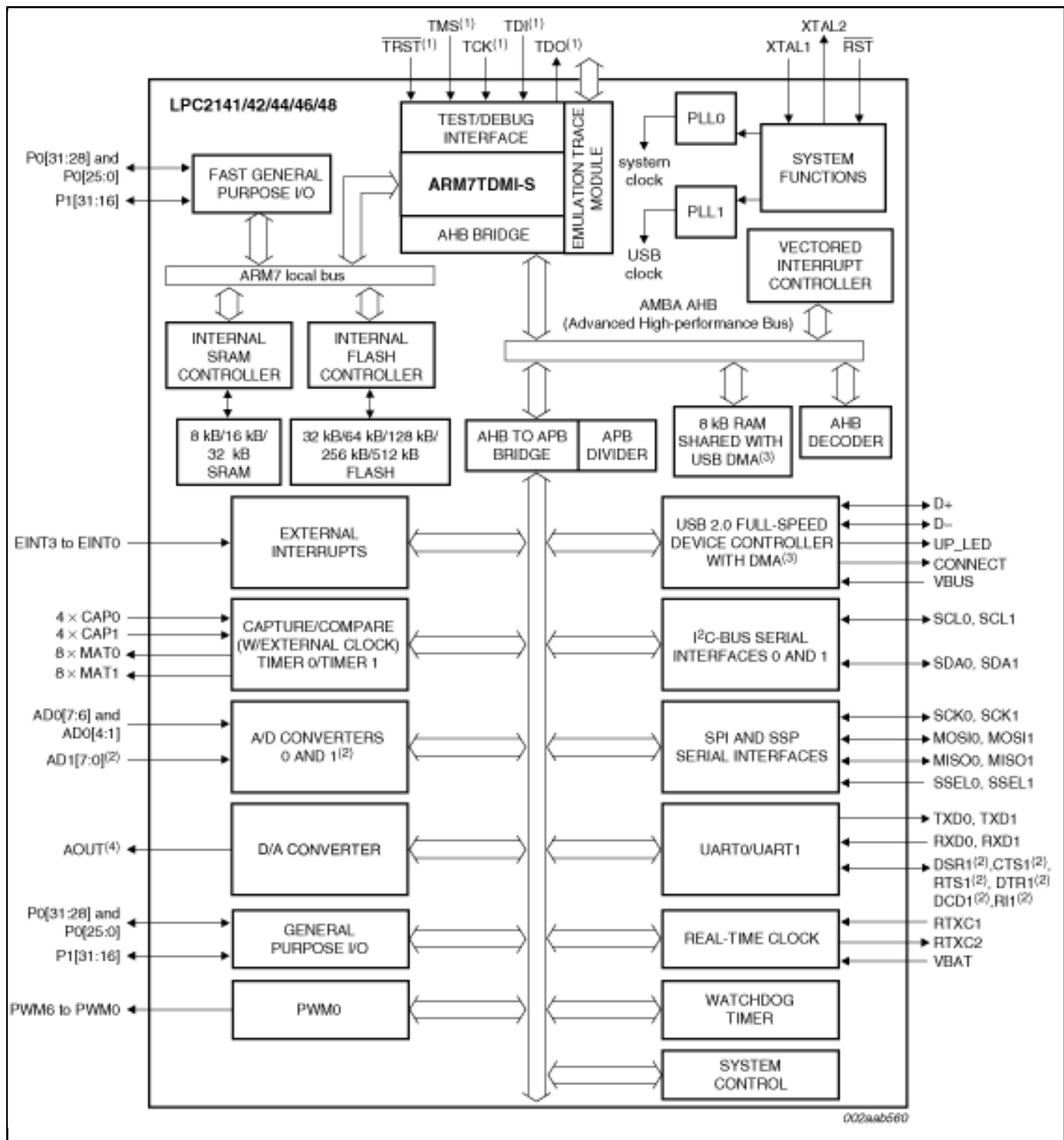
LPC2141FBD64

新規採用非推奨
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。

Last Updated: Apr 8, 2022

The LPC2141/42/44/46/48 microcontrollers are based on a 16-bit/32-bit Arm7TDMI-S™ CPU with real-time emulation and embedded trace support, that combine the microcontroller with embedded high-speed flash memory ranging from 32 kB to 512 kB. A 128-bit wide memory interface and a unique accelerator architecture enable 32-bit code execution at the maximum clock rate. For critical code size applications, the alternative 16-bit Thumb mode reduces code by more than 30 % with minimal performance penalty.

Due to their tiny size and low power consumption, LPC2141/42/44/46/48 are ideal for applications where miniaturization is a key requirement, such as access control and point-of-sale. Serial communications interfaces ranging from a USB 2.0 Full-speed device, multiple UARTs, SPI, SSP to I²C-bus and on-chip SRAM of 8 kB up to 40 kB, make these devices very well suited for communication gateways and protocol converters, soft modems, voice recognition and low end imaging, providing both large buffer size and high processing power. Various 32-bit timers, single or dual 10-bit ADC(s), 10-bit DAC, PWM channels and 45 fast GPIO lines with up to nine edge or level sensitive external interrupt pins make these microcontrollers suitable for industrial control and medical systems.

Block diagram: LPC2141FBD64, LPC2142FBD64, LPC2144FBD64, LPC2146FBD64, LPC2148FBD64 Block Diagram

www.nxp.com