DESCRIPTION

The PT32C302 microcontrollers is a series of low-power microcontrollers incorporating a high-performance ARM CortexTM-M0 32-bit RISC core. It operates at a maximum 48 MHz frequency and features up to 64 Kbytes of Flash and up to 8 Kbytes of SRAM. A comprehensive set of power-saving modes allows it to be employed in low-power applications. Extensive range of enhanced peripherals and I/Os are available allowing the device to be adopted in different application. A comprehensive set of power-saving modes allows it to be employed in low-power applications. The Flash program memory can be reprogrammed in-system through the SWD interface.

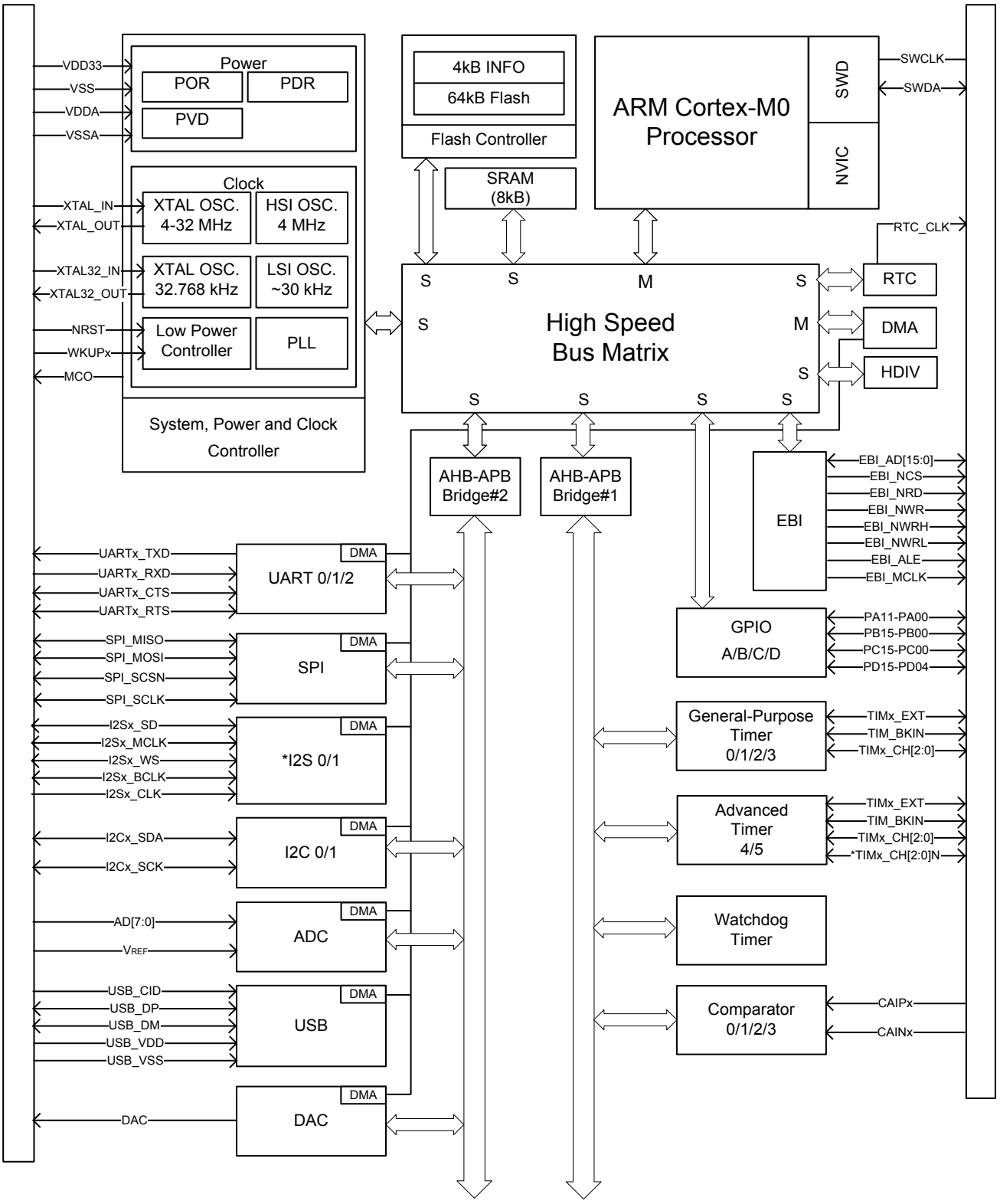
PT32C302 USB MCUs subseries let you easy to implement industry standard USB connectivity. An on-board USB 2.0 full-speed function Host / Device controller with an integrated transceiver and no external crystal or oscillator required for the USB. Elimination of external clock reduces the overall system cost associated with developing a USB device application, make it easy to add USB functionality to the embedded system. In order to support the crystal-less USB device operation, a factory-trimmed internal 4 MHz High Speed clock source is capable of generating the 48MHz clock for USB module and a USB clock recovery circuit is included on this microcontroller.

PT32C302 microcontroller peripheral set also includes an External Bus Interface, 2x UARTs, 2x I2C, 2x I2Ss, 3x SPIs, 4x general-purpose 16-bit timers, 2x advanced 16-bit timers, an RTC, an ADC, a 12-bit DAC and four analog comparator.

FEATURES

- ARM Cortex M0 Processor
- Performance up to 48 MHz
- Flash memory 64K-Byte with 4K-Byte information
- System SRAM 8K-Byte
- Power control
  - POR/PDR
  - PVD
- Low power mode
  - Sleep mode
  - Stop mode
  - Standby mode
- Clock source
  - External crystal 8MHz and 32KHz
  - Intenal trimmable RC 4MHz, and RC32KHz
- Peripherals
  - Up to 56 GPIOs
  - 16-bit general timer * 4
  - 16-bit advance timer *2
  - PWM
  - DMA 6 channel
  - WDT/RTC
  - 8 channel 12-bit ADC
  - 12-bit DAC
  - 4 Comparator with window comparison
  - USB 2.0 full-speed
  - 2 UARTs
  - 2 I^2C with master/slave mode
  - 2 I^2S
  - 3 SPI with variable bit length (4-16 bits)
  - External Bus Interface(EBI)

BLOCK DIAGRAM



IMPORTANT NOTICE

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