



## DESCRIPTION

The PT32U301 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 32 Kbytes of Flash and 4 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.

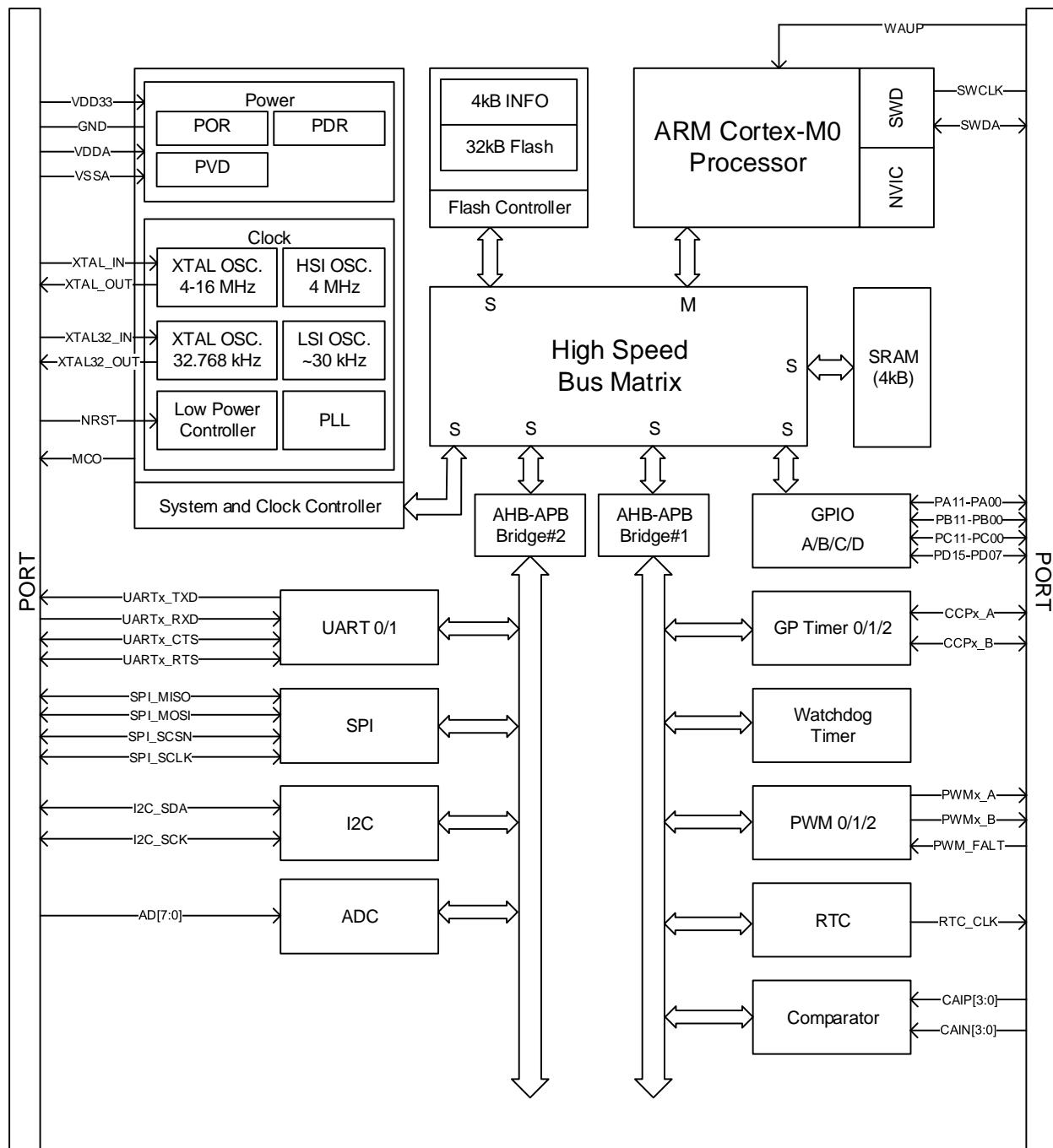
The PT32U301 MCUs give you any essential functionality as a General-purpose MCU. With its highly customizable peripherals, it eases the process of making your own ideal product.

PT32U301 microcontroller peripheral set also includes an External Bus Interface, 2x UARTs, 1X I2C, 1 SPI, 3x general-purpose 16/32-bit timers, an RTC, 3x PWM, an ADC and four analog comparators.

## FEATURES

- ARM Cortex M0 Processor
- Performance up to 48 MHz
- Flash memory 32K-Byte
- System SRAM 4K-Byte
- Power control
  - POR/PDR
  - PVD
- Low power mode
  - Sleep mode
  - Stop mode
  - Standby mode
- Divers Peripherals
  - Up to 45 GPIOs
  - 16/32-bit timer \* 6
  - WDT/RTC
  - 8 channel 12-bit ADC
  - 4 Comparator with window comparison
  - 2 UART
  - I2C with master/slave mode
  - SPI with variable bit length (4-16 bits)

## BLOCK DIAGRAM



## CONTENT

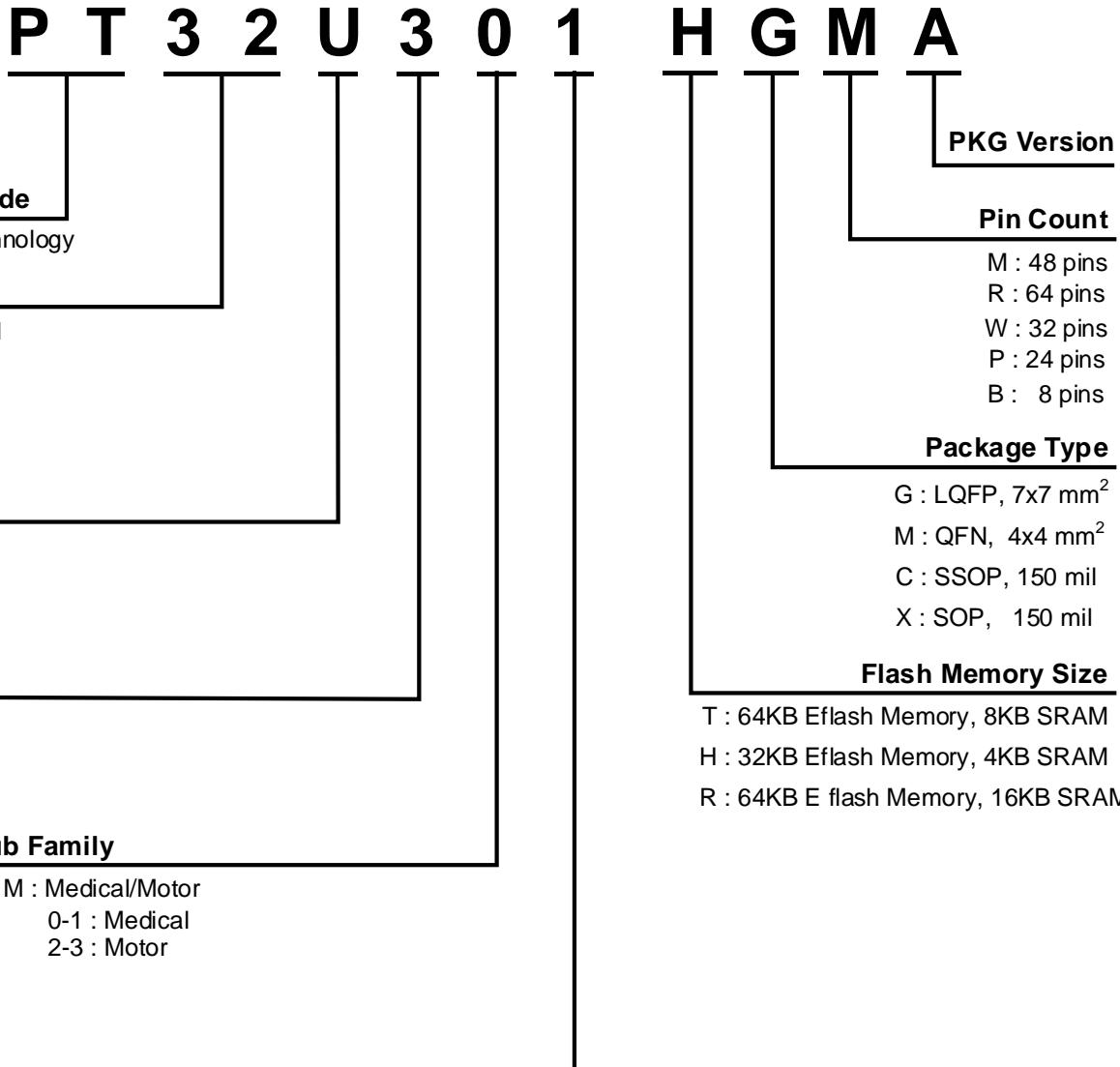
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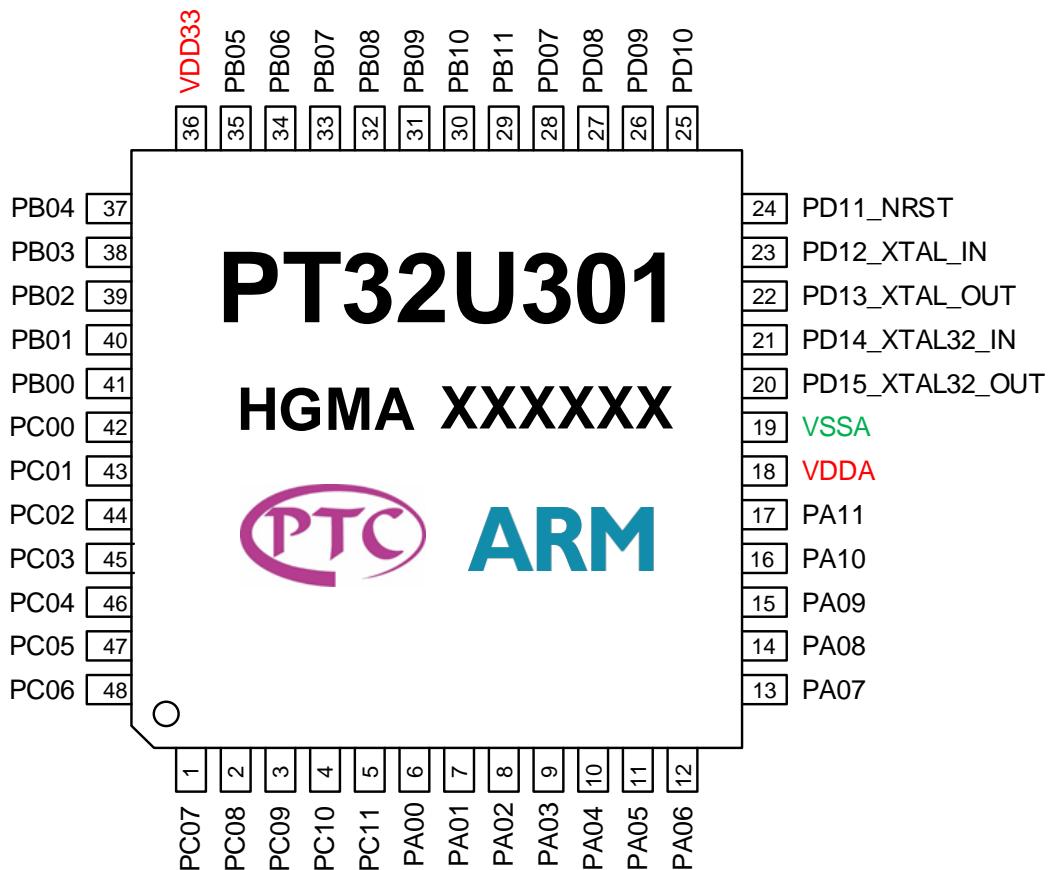
## 1. ORDER INFORMATION

| Valid Part Number | Package Type | Top Code      |
|-------------------|--------------|---------------|
| PT32U301          | LQFP 48      | PT32U301 HGMA |
| PT32U301          | LQFP 32      | PT32U301 HGWA |
| PT32U301          | SSOP 24      | PT32U301 HCPA |
| PT32U301          | SOP 16       | PT32U301 HXLA |
| PT32U301          | SOP 8        | PT32U301      |



## 2. PIN CONFIGURATION

LQFP - 48



## IMPORTANT NOTICE

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