

**8/16-BIT MCU FOR USB HUB KEYBOARDS WITH 8K ROM,  
256 RAM, 2 USB FUNCTIONS, USB HUB & WATCHDOG TIMER,**

## BRIEF DATA

- USB interface compliant with USB specifications version 1.0 having the following capabilities:
  - USB HUB with 3 downstream ports supporting power management (ganged or per-port power switching and overcurrent detection) including suspend and resume for bus-powered applications
  - USB Embedded Functions having two additional endpoints (one control and one interrupt), with programmable buffer sizes
  - On-chip USB Transceivers and 3.3 voltage regulator.
- 7 external interrupts: 3 used for overcurrent sensing on downstream port, 1 (Ored on 8 ports) used for keyboard activity detection (with wake-up capability) and 3 left for user application.
- Watchdog timer
- 37 Fully programmable I/Os with 5 high current pads (10 mA @ 1 V)
- Programmable PLL clock generator (RCCU) using a low frequency external quartz (8 MHz).
- Internal Memories: 8 Kbytes ROM, 256 bytes RAM.
- Register oriented 8/16 bit CORE with RUN, WFI, SLOW, HALT and STOP modes
- Rich Instruction Set with 14 Addressing Modes
- 0 - 24 MHz Cpu clock Operation, 4 - 5.5 Volt voltage range
- Minimum instruction cycle time: 167 ns (@24 MHz CPU frequency)
- Division-by-zero trap generation
- 0 °C to 70 °C temperature range
- 224 general purpose registers available as RAM, accumulators or index pointers (register file)
- 56-pin Shrink Dual In-Line plastic package or 64-pin Quad Flat Pack plastic package
- Low EMI design supporting single sided PCB
- Versatile Development Tools, including assembler, linker, C-compiler, archiver, source level debugger and hardware emulators, and Real Time Operating System

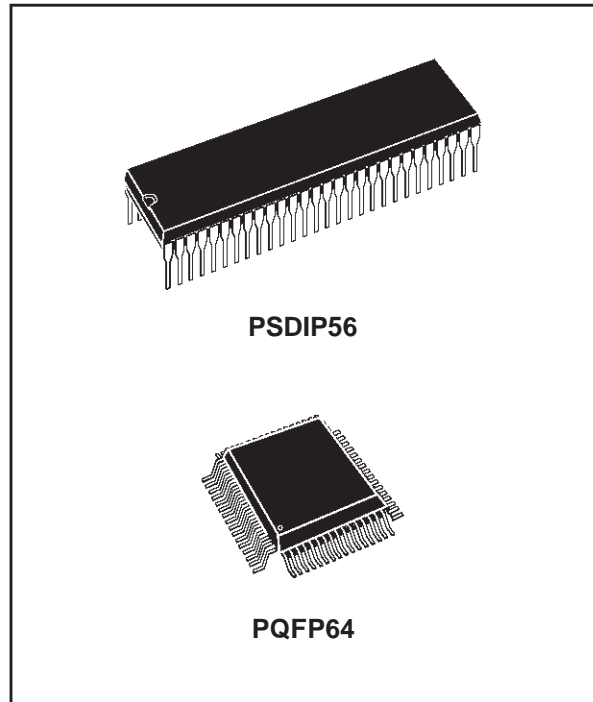
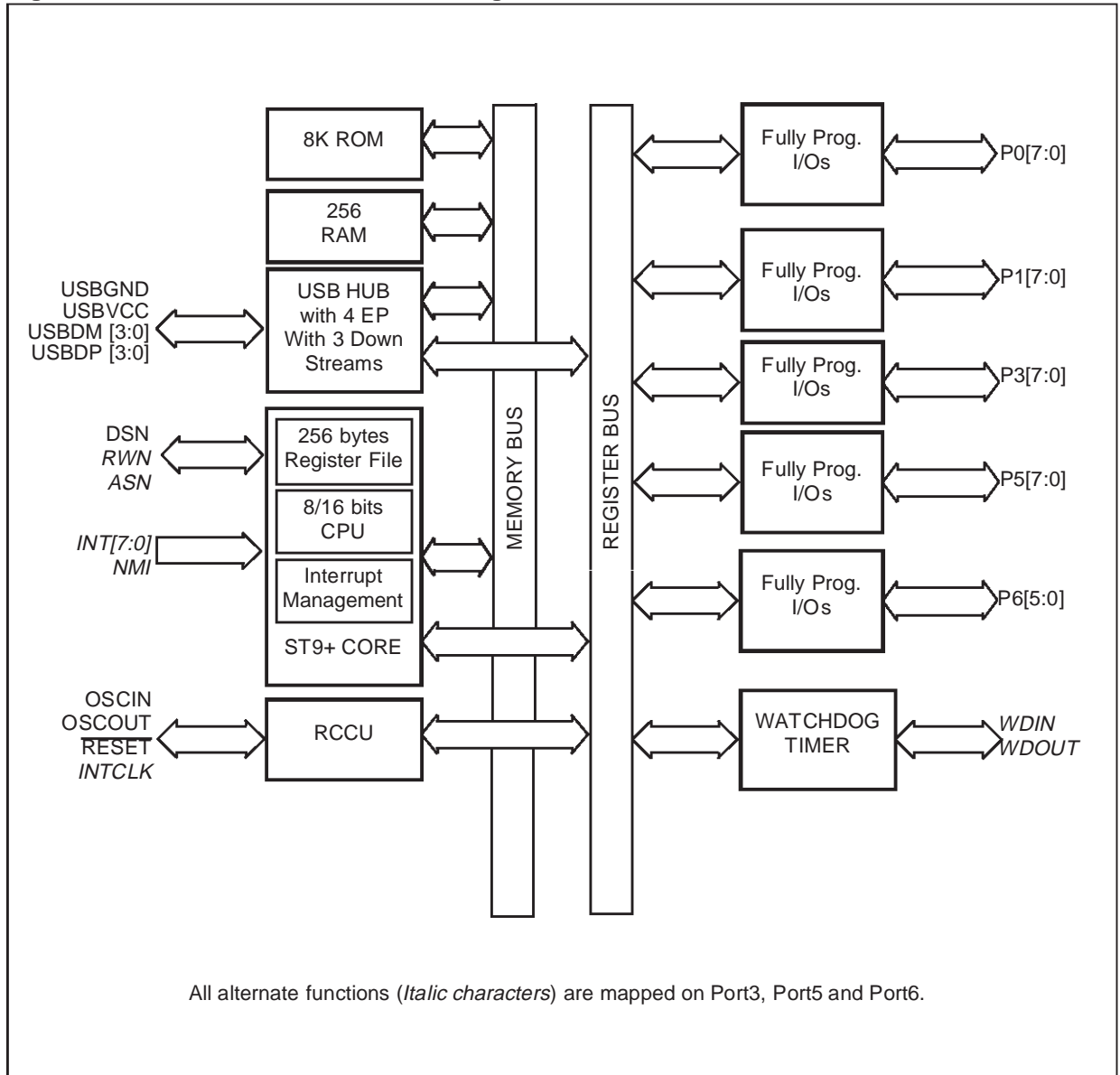


Figure 1. ST92162 Architectural Block Diagram



**8/16-BIT MCU FOR USB HUB KEYBOARDS WITH 8K EPROM/OTP,  
256 RAM, 2 USB FUNCTIONS, USB HUB & WATCHDOG TIMER,**

PRODUCT PREVIEW

- USB interface compliant with USB specifications version 1.0 having the following capabilities:
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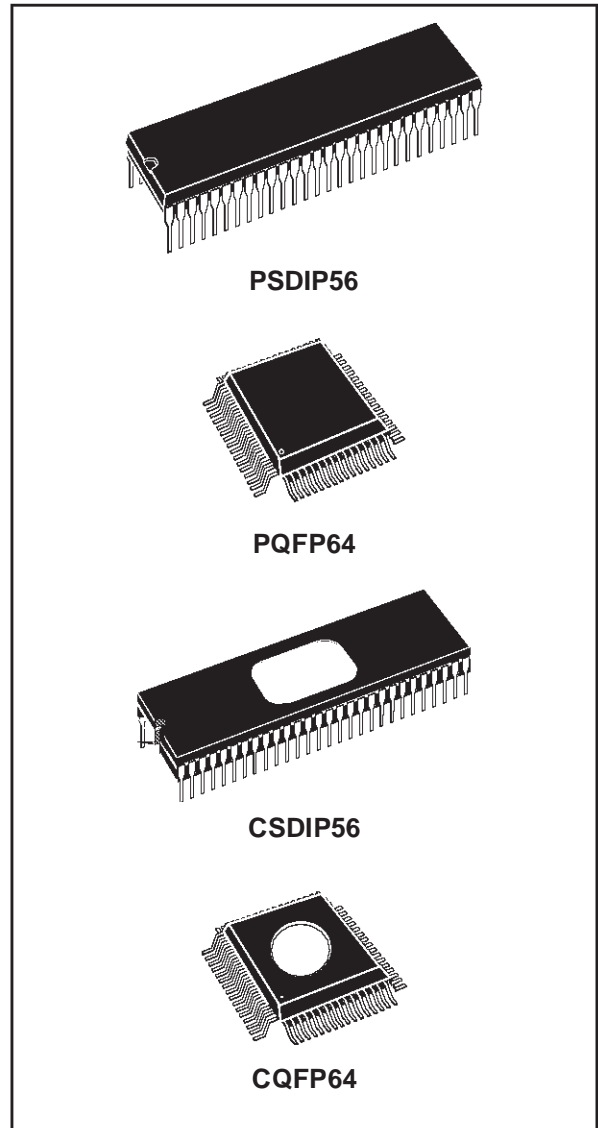
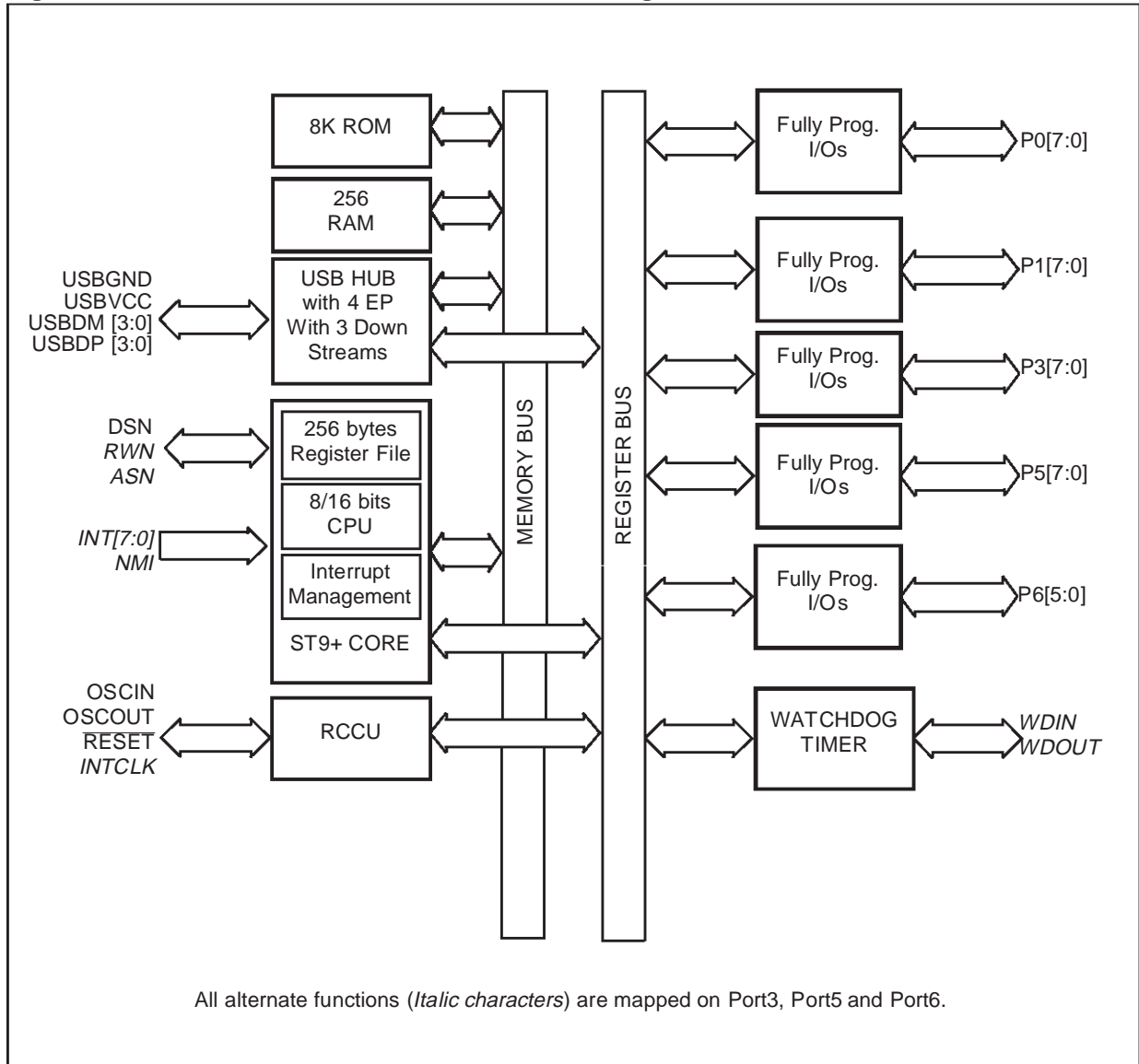
level debugger and hardware emulators,  
programmers and Real Time Operating System

Figure 2. ST92E162/ST92T162 Architectural Block Diagram



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