QUANTUM

SODIMM format PXA270 XScale® SBC

Features

Features:

- Intel XScale® 520MHz PXA270 SBC
- Ultra-low power PC/104 format
- Flat panel graphics controller
- 1.5W maximum power consumption

Supported Operating Systems:

- Windows® CE 5.0
- Linux

The QUANTUM is an ultra low power single board computer based on the PXA270 XScale RISC processor. The PXA270 is an implementation of the ARM compliant, Intel XScale microarchitecture combined with a comprehensive set of integrated peripherals including: flat panel graphics controller, USB host/client controller, interrupt controller and multiple serial ports. The QUANTUM provides a ready-to-run processing engine in an extremely compact format. Intended for applications where interfaces and I/O are designed onto a custom motherboard, the adoption of a QUANTUM led solution provides the fastest time to market by eliminating the work and risk involved in the more complex design elements associated with the processing core and operating system provision.

The 520MHz PXA270 QUANTUM processor module and QUANTUM Baseboard provide a fast-track core to your next embedded project. The QUANTUM Baseboard is a design platform providing real world connectivity for the QUANTUM module including RS232, USB, Ethernet, audio, video, CompactFlash and much more.

Full schematics to the QUANTUM Baseboard are included, allowing either you or EUROTECH to custom design your own platform incorporating only those features from the baseboard required for your application.

When a high performance and cost-effective solution is needed for your next integrated embedded project, adopting the QUANTUM offers an accelerated route to market by eliminating the time and risk involved in the complex design of the processing core, leaving you to concentrate on the application code and I/O design unique to your requirement.

With an integrated TFT/STN video controller, the QUANTUM and QUANTUM Baseboard are well suited for video, multi-media, display and other applications where time to market is crucial.

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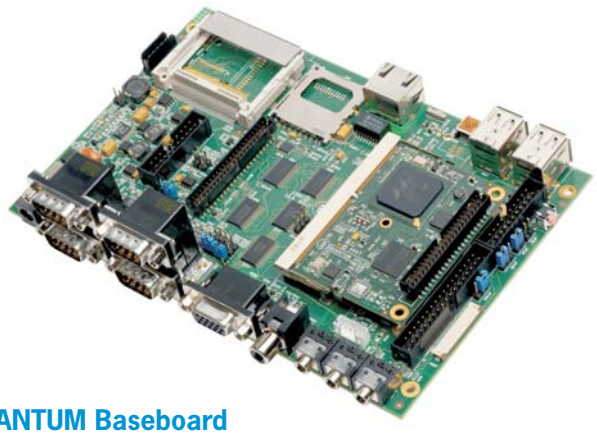
Technical Specifications

PROCESSING UNIT	312MHz or 520MHz PXA270 processor
	64MB SDRAM
	256kB CPU SRAM
	32MB soldered Flash (64MB option)
	Watchdog timer
SUPPORTED OS	Windows CE 5.0 and Linux
GRAPHICS	Video controller supporting STN & TFT displays up to 640 x 480
AUDIO	AC97 audio controller (WM9712L)
USB PORTS	Dual USB 1.1 host ports (USB client option on second port)
SERIAL PORTS	1 x 16550 up to 921.6kb/s: full modem control lines (TTL)
	1 x 16550 up to 921.6kb/s: Tx, Rx, CTS and RTS (TTL)
	1 x 16550 up to 921.66kb/s: Tx, Rx only (TTL)
	2 x 16550 up to 1843.26kb/s with 128byte Tx/Rx FIFO Tx, Rx, CTS and RTS (TTL, automatic RS485 flow control)
TPM (optional)	Atmel Trusted Platform Module device, TCG v1.2 compatible
PC PERIPHERALS	Battery-backed RTC, DMA controller, interrupt controller, interval timer, watchdog timer
TOUCHSCREEN	4-wire analogue resistive touchscreen controller
DRIVE SUPPORT	IDE interface (for 3.3V devices only - DOM Flash disk support)
	MMC/SD/SDIO interface
	CF interface bus
GENERAL PURPOSE I/O	Up to 78 GPIOs (depending on which interfaces are used)
	I²C interface
	Two SSP (Synchronous Serial Protocol) interfaces
	Two PWM outputs
	Intel Quick Capture Camera Interface
HUMIDITY	10% to 90% RH (non-condensing)
POWER SUPPLY	500mA (typical) @ +3.3V +/-5%
	<1W (typical) power consumption, 100mW sleep mode
DIMENSIONS	SODIMM form factor board 67.6mm x 50mm
OPERATING TEMPERATURE	Commercial: -20°C to +70°C
	Industrial: -40°C to +85°C



QUANTUM Baseboard

FEATURES

- CompactFlash card
- MMC/SD (miniSD) card header
- FFUART, BTUART, IRUART serial ports
- 2 x external UART serial ports (1 x RS485/422 capable)
- 4 x standard USB host ports (USB 1.1 spec. for standard client devices, i.e. mouse, keyboard, USB Flash disk, etc.), provided by a Philips ISP1520 hub controller
- B or mini B-format USB connector, allowing the QUANTUM module to be connected in client mode to a USB host
- 3 x analogue audio jack plugs (stereo line in, stereo line out, microphone in) provided by UCB1400 codec
- Hitachi 3.8" TX09D50VM1CCA LCD connector, a universal 2 x 17-pin header for other LCD's and a 5-pin header for touch panels
- 100MB Ethernet device Davicom DM9000A
- 2 x 10-pin header for SSP1, SSP2, RS485 and I²C interfaces and 2(4) PWM outputs
- 2 x 22-pin bus-expansion header (featuring a 16-bit expansion bus, available to interface an IDE device or a customer add-on module)
- Standard VGA out & composite video output provided by a Focus FS453 video encoder
- Wireless connectivity (data compliant low power 4Mbit/s infrared transceiver IrDA provided by STUART; Bluetooth module connectivity provided by BTUART serial and WLAN 802.11 b/g connectivity provided by CF interface)

About EUROTECH

EUROTECH delivers embedded computer systems for high capability and low power applications, networking and wearable computing solutions, and application framework middleware for multimedia, industrial, transportation, medical, and wireless applications. EUROTECH platforms allow OEM and enterprise customers to focus on their core revenue-generating products and services and get to market quickly.

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