Embedded Computer Runs Linux, Development Tools, and Access Control



US embedded hardware OEM KwikByte is shipping an embedded system designed for general purpose computing, access control applications, test stands, and inventory management. KwikByte demonstrated the system running open-source packages and a sample access control application within various environments.

(Tempe, AZ) February 9, 2009 – US embedded hardware OEM KwikByte demonstrated a display-based, development system running a full Debian environment and applications on a power-conscious, microcontroller. The system is targeted at general purpose computing, test stands, access control systems, and inventory management applications.

The board used for the demonstration, KwikByte's KBK9G20, is based on the AT91SAM9G20 microcontroller. The controller's small footprint reduces system size while the low power consumption allows the board to be powered by Power over Ethernet, battery, or standard wall adapter.

The system's available peripheral set make it ideal for RFID-supported access control (side screen shot) and inventory management by using standard, low-cost USB barcode scanners. The third (internal) USB host port also accommodates common WiFi adapter clips – adding wireless Ethernet connectivity. The VGA version reduces cost by trading the LCD touch-screen for VGA port and both options support Human Machine Interface (HMI) and test-stand type applications.



The board supports smaller configurations like BusyBox and uClibc (top screen shot) as well as larger installations like Debian. The Debian environment was shown running the IceWM window manager on the 7" 800x480 touch-screen LCD (bottom screen shot). The applications demonstrated include word processor, spreadsheet, browser, games, and system utilities. While external hard drives can be used for extra storage, all configurations demonstrated were stored entirely within on-board Flash.

System Details

- · AT91SAM9G20, ARM926EJ-S 400MHz
- · 64/128 MB SDRAM
- · 8 MB boot Flash
- · 1 GB+ NAND Flash
- Touch-screen, 7" LCD at 800x480 (optional)
- · VGA port (optional)
- 10/100 Ethernet
- · 3 x USB 2.0 host ports, 1 internal
- · 2 x RS-232 serial channels
- · RFID reader board (optional)
- Battery-backed RTC
- · On-board speaker
- · On-board microphone
- Power options: Power over Ethernet, battery, or 5VDC wall adapter
- Size: 7" x 4.7" x 1.35" (plastic LCD enclosure), 6.1" x 4.7" x 1.1" (metal VGA enclosure)

Availability

The KBK9G20 is shipping now with volume pricing of \$167.99 for the VGA version with case.



About KwikByte KwikByte designs and manufactures embedded hardware systems. Founded in 2003, KwikByte is located in Tempe, AZ. ###