



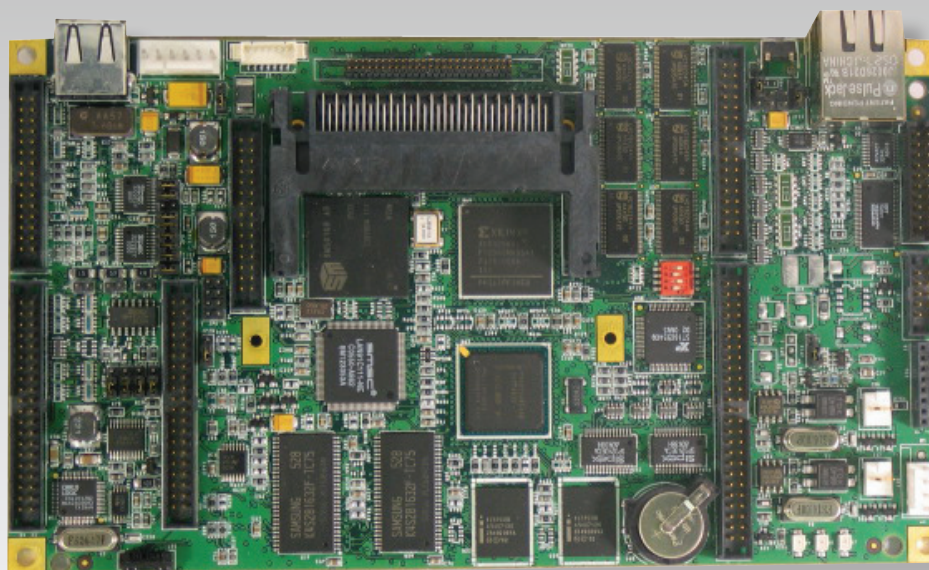
## PRODUCT DATASHEET

# Video GraphicsX™

I/O-rich and graphics-rich, multimedia-oriented embedded computer featuring the PXA255 processor

### HIGHLIGHTS

- Ideal solution for graphics intensive applications
- Fanless enclosure in small form factor
- Graphics accelerator for advanced graphics and multimedia capability
- Comprehensive communications and I/O
- Low power consumption (< 2W typical)
- RoHS compliant



### DESCRIPTION

**Bring technology to the edge with the Video GraphicsX.** Video GraphicsX (VGX) is a robust embedded product on a single board computer which is comprehensive in I/O, thrifty on power consumption, and rich in graphics capabilities. It allows you to begin development immediately, accommodates the majority of embedded applications, and is configured to be readily depopulated for cost effectiveness. Even more striking than the listed features are those that are less apparent including application-ready packages where all drivers and low-level software are complete and ruggedized design.

ADS' flexibility and customization abilities provide product and licensing options with financial packages available to meet customer-specific requirements.



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## SPECIFICATIONS\*

### PROCESSOR

- 32-bit Marvel PXA255 ARM RISC processor at 400MHz
- Voltage and frequency scaling

### GRAPHICS/VIDEO/TOUCHSCREEN

- SM502 LCD graphics controller
- Support for Analog RGB, 24-bit LVDS, and RGB565
- Video graphics resolution up to 1280x1024
- One 34-pin LCD port
- Backlight connector with PWM + ON/OFF controlled by software
- 4-wire or 5-wire analog resistive touchscreen interface

### AUDIO

- Stereo Audio AC97 Codec
- 16-bit data format supported
- Stereo microphone and line inputs
- Stereo differential amplifier with direct connection to speakers

### MEMORY

- 64 MB of SDRAM (support up to 256 MB)
- 32 MB of Flash memory (support up to 64 MB)
- One PCMCIA interface (Type II)
- One CompactFlash signal header
- SD/MMC interface option

### OPERATING ENVIRONMENTS

- Windows CE
- Linux

### COMMUNICATIONS/EXTERNALS/INTERFACES

- Two CAN (2.0b) buses (full speed)
- One 5-wire RS-232, 3.3V logic, RS-422/RS-485, or J1708 port
- One 5-wire RS-232 (3.3V logic) or IrDA port
- Three 9-wire RS-232 or 3.3V logic ports
- Two 9-wire 3.3V logic ports
- One USB 1.1 host controller supporting low-speed (1.5Mbps) and full-speed (12Mbps) with Type A connector
- One USB 1.0 function port supporting low-speed (1.5Mbps) and full-speed (12Mbps)
- One 10/100BASE-T Ethernet port with RJ-45 connector
- ADSmartIO (sixteen digital I/Os and/or up to 8x8 matrix keypad, ten additional GPIOs, four A/D inputs)
- One I2C port
- One SPI/SSP port

### PHYSICAL/OTHER

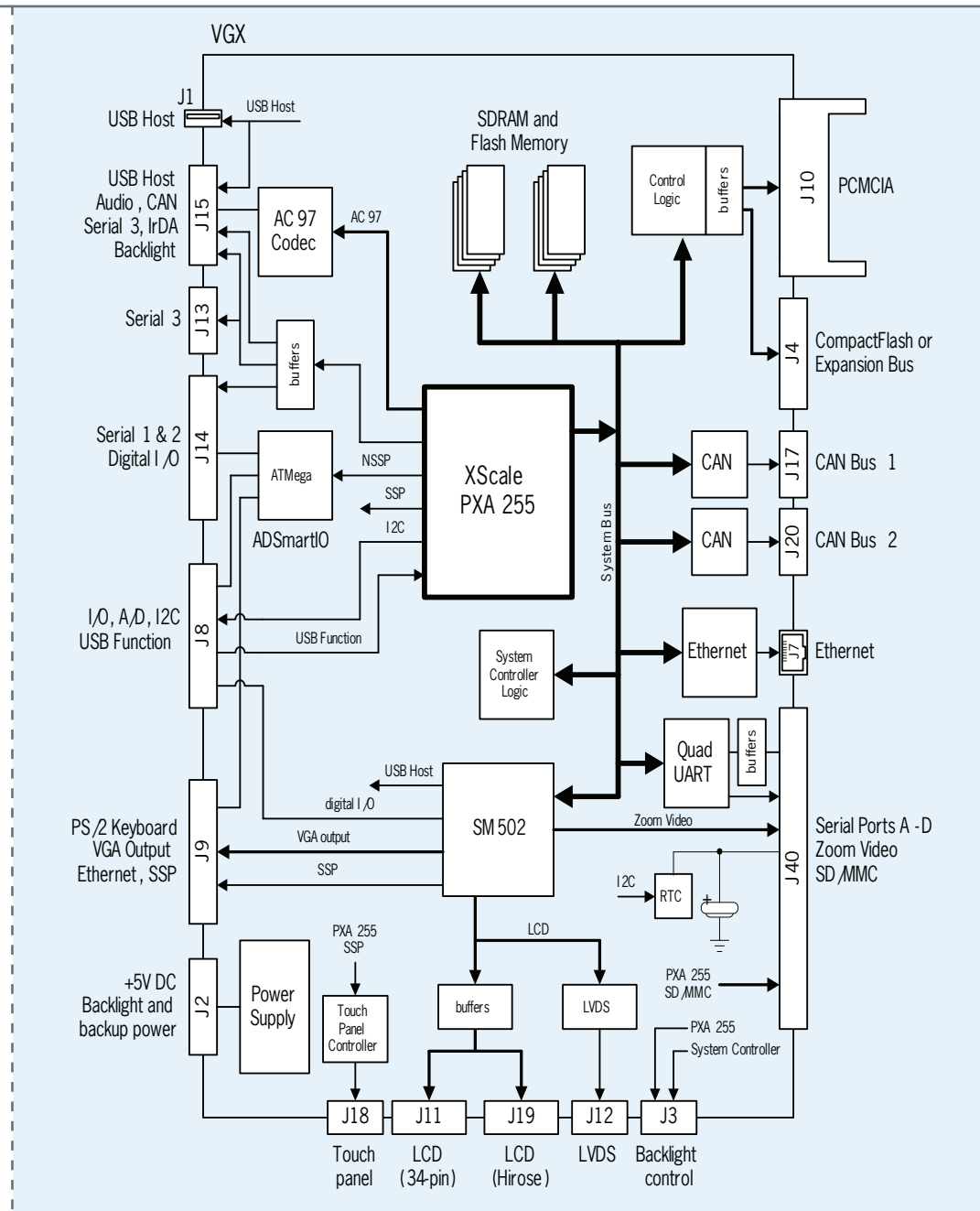
- System dimensions 4 x 7 inches (102 x 178 mm)
- Commercial temperature 0° to 70° C
- Extended temperature -40° to 85° C
- External power supplies of 5V for system and 5V to 12V for backlight
- Power consumption 2W typical
- RoHS compliant

### PERIPHERALS

- One battery-backed Real Time Clock
- Three software-controlled LED status indicators
- Four software-readable configuration switches

\* Subject to change without notice.

## VIDEO GRAPHICSX BLOCK DIAGRAM



### The Embedded System Architects

Applied Data Systems is a leading manufacturer of single board computers used in process control, medical instrumentation, environmental monitoring, fleet management, kiosks, voting systems and industrial automation equipment.

With 20 years of graphics hardware and software development experience, Applied Data uniquely delivers customized display connectivity, device support, and network communications. Applied Data Systems, a Eurotech Group company, is ISO 9000 certified, with headquarters in Columbia, Maryland, USA.

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CMM4452 November 2007v1.0