## **ADS Graphics Client™ Plus Embedded Single Board System**

### Linux on a Complete StrongARM Platform: Finally Available!

The ADS Linux / Intel StrongARM SA-1110 systems leverages the open source cooperative in a cost-effective, user-friendly environment. Intel's low power StrongARM designs are becoming the preferred core components for the enormous growing markets for portable and wireless information appliances. ADS propels this technology in a low power, low cost single board solution that is immediately available, and is offered with a Linux OS at a very attractive licensing fee - - - it's free!

## The "small is beautiful – fast is beautiful – simple is beautiful" theme

The Linux-based Graphics Client Plus is ideal for purpose-built appliances with embedded intelligence, and for applications connected with and manageable over the Net. Our uniquely embedded systems come ready to "plug and play" with all the stacks and low level drivers done for you. The cornerstone of the package is Intel's StrongARM SA1110, rich in power capability and low in power consumption. The Graphics Client's tremendous IO package includes 3 serial ports, Ethernet, CAN 2.0b, PCMCIA, and a "Smart IO" user-selection combination from 32 digital IOs/12 analog inputs/PWM's.

#### "Accessible" Linux Ready to "Plug and Play"

ADS provides the richness derived from the open source and allows you to incorporate the popularity of Linux within a ready to use, flexible system. ADS' added value is the integration of the hardware and software at the API, allowing you to bypass the complications of writing your own drivers and helping you get your products to market quicker.

With an application-ready product, you can incorporate the Graphics Client into your design, providing tremendous savings on development and maintenance costs. Time to market can often be reduced from years to months. Using ADS as an extension of your development team, you can focus directly on what's important to you and your customer: your application.

# NOW WITH LINUX!

#### A Quicker, Easier Path to Embedded Information Appliances

The "shelf-ready" Graphics Client Plus with Linux / StrongARM comes at a pivotal juncture in the embedded industry. StrongARM-based systems are a generation beyond their PC ancestors: they are designed with an embedded focus, rather than being a reconfiguration of a desktop PC. This paradigm shift ensures more compact yet robust systems, lower power-usage and lower price. The Graphics Client is a complete, "plug and play" package designed to enhance the growth of embedded information appliances. It offers laptop-type performance and tremendous GUI, at a microcontroller price point and size.

#### **Widely Popular in Diverse Applications**

Since its release as one of the first SA-1110 StrongARM-based boards with Linux compatibility, the new Graphics Client has been sought for mobile and Internet-enabled applications requiring wireless connectivity. Additionally it is enabling numerous applications including process control, GPS, fleet management, and POS/kiosk.





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#### **Graphics Client Plus Specifications**

- 32-bit Digital StrongARM SA-1110 –
  235 MIPS/<400mW @ 206MHz (to inquire about the SA-1111, contact ADS factory)</li>
- Operating Environments include Linux, Windows CE, OS-9, Nucleus, VxWorks
- Supports JAVA™ with a RTOS
- Synchronous DRAM to 32 Mbytes
- Flash Memory to 32 Mbytes
- 128 Kbytes of EPROM as a boot device
- One PCMCIA
- Three (3) Serial Port:
  - COM1: RS232
  - COM2: RS232, IRDA or TTL
  - COM3: RS232 or RS485/422
- On-board Codec:
  - 1 Speaker Output (100 mW)
  - 1 Microphone Input
- · Ethernet interface: 10BT
- CAN
- Video interface up to XGA (1024x1024) 8-bit color
  - LCD controller (passive or active; 4,092 palette)
- VEE generator with PWM control by software
- Backlight connector with PWM + ON/OFF controlled by software
- Real Time Clock
- Inputs/Outputs:
  - 10 TTL Digital Software configurable Inputs/Outputs, 4 Analog Inputs (0-5V), PLUS:
- · A.D.S. Manufacture Configurable IOs:
  - 8x8 Keypad/Digital Touch screen + 6 Digital IOs or,
  - 8 Analog Inputs (0-2.5V) + 15 Digital IOs or,
  - 22 Digital IOs.
- 3 Software controlled LED status indicators, 4 configuration switches software readable, PS2 Keyboard, Real Time Clock, Touch Screen (Analog/Digital, see Configurable IO)
- Physical dimension of 4.0 inches by 6.0 inches

#### CAN 2.0B Bus 10 Digital IOs CAN Controll 4 10 Bits Analog Inputs 3.3V to 1.5 Switching Converter CODEC UCB1200 4 Wires Analog Touchscreen Speaker 64K\*16 ORAM Microphone 4 inches 16 Mbyte SA1110 ADS Smart Configurable I/Os 16 Mbvtes Configurable IOs PS2 Keyboard DRAM PWM1 PWM2 16 Mbyte 8x8 Keyboard **RJ11 Ethernet** RS232 COM1 Ethernet Controller RS232/IrDA/TTL RS234/422/48 COM<sub>2</sub> COM3 RS232 RS422/RS485 PCMCIA Interface USB PCMCIA 5V/3V Panel IrDA 6 inches

#### **Customer Benefits**

- Compact, battery operable
- · Off-the-shelf: quick time to market
- Low power = low heat
- Universal interconnectability
- Tremendous GUI
- · Low cost

To order the ADS Graphics Client Plus from Applied Data Systems, Inc. call toll-free.

The ADS Internet home page is at www.applieddata.net



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