

## Gain Time to Market for Intel-based Embedded Devices

The Accelent DevkitIDP™ is a reference design based on the Intel PXA255 Application Processor. The reference design is used to help developers speed up their embedded device cycle and combines the high performance and power efficiencies of the XScale™ Microarchitecture with the functionality and flexibility of our proven, industry-leading software technologies. Together, they provide a feature-rich, cost-effective development platform for embedded device application and product development.

The Accelent DevkitIDP for the Intel PXA255 Applications Processor simplifies development by providing:

- Production quality device drivers and bootloader
- Support for Microsoft® Windows® CE
- Support for third party Linux implementation
- An impressive array of on-board hardware peripherals
- Multiple expansion connectors to integrate and test various hardware components
- Production-quality hardware design applicable to various product types
- A stable environment for application development and testing
- Integrated power management functionality
- Licensable source code



**GOLD-LEVEL MEMBER**

**The Accelent DevkitIDP™ can be used to develop personal digital assistants (PDA), wireless web pads, set-top boxes, Internet audio and video devices, kiosks, point-of-sale (POS) products, hand-held gaming devices, portable data terminals (PDT) and a wide variety of vertical market devices.**

## HARDWARE FEATURES

- Integrated LCD display, touch panel and keyboard
- Easy access to components, power supply monitoring points and grounding points for test probing
- Multiple ports for use in application development
- Ethernet connectivity
- JTAG connector
- Expansion buses to accommodate additional devices
- 2 PCMCIA slots or Compact Flash slots with adapter
- 90-Day hardware warranty
- USB Host and Function

## SOFTWARE FEATURES

- System bootloader that supports Flash ROM updates from PCMCIA, Compact Flash, and Ethernet
- Easily upgradable system bootloader and OS image
- System bootloader that supports display output and menu-driven boot options
- Production quality OS images
- 45 days of installation support
- Binary modules including: – USB Host and Function – IrDA – Ethernet – AC '97 Audio – LCD Display – Touch Panel – PCMCIA/Compact Flash – Matrix Keyboard – UART

## TECHNICAL SPECIFICATIONS

### Physical Dimensions

- 16" (40.6cm) long x 12" (30.5cm) wide x 10" (25.5cm) tall (display open) or 4.25" (10.8cm) tall with display closed
- Working weight is 8 lbs (3.6kg) with AC power supply and 6 lbs (2.7kg) without. Shipping weight is 15 lbs. (6.8kg)

### Microprocessor

- Intel PXA255 Applications Processor running at 400 MHz

### Memory

- 64 MB SDRAM
- 32 MB Intel StrataFlash®
- 32 MB M-Systems Millennium Plus (NAND)

### Video

- Full VGA color Sharp LM8V302 7.7" DSTN LCD display controlled by PXA255
- Support for alternate displays (hardware only)

### Touch Screen

- Two resistive 4-wire touch controllers (jumper selectable)
  - Philips UCB1400
  - TI/BurrBrown ADS7846 (hardware support only)
  - Support for alternate touch controllers (hardware only)

### PC Card (PCMCIA)

- Two PC Card Type II slots (or one Type III slot)
- Supports 3.3V, 5V, and 12V
- Supports CompactFlash® cards with adapter

### Secure Digital/MultiMedia Card

- Via Secure Digital (SD) connector
- SDIO support

### USB

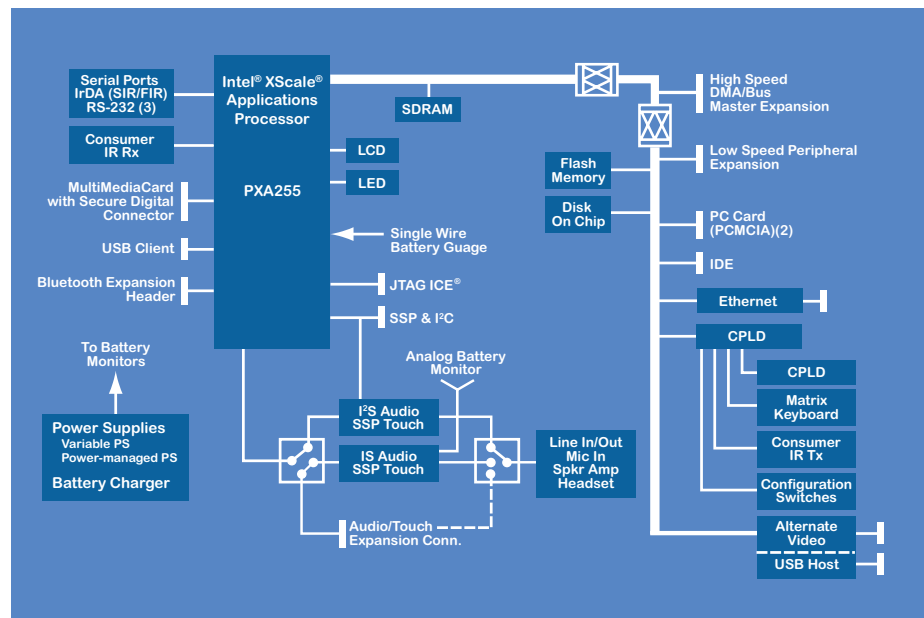
- Host and Function

### Radio/Bluetooth®

- Bluetooth serial connector
- Supports additional radios via PC card slots and SDIO

### RS-232 Serial Ports

- Three configurable serial ports at 230.4 Kbps including full handshake for use with ActiveSync®



### IrDA

- SIR (115.2 Kbps)
- FIR (hardware support only)

### Consumer IR

- Transmit and receive (hardware support only)

### Ethernet

- 10/100 Base-T (SMSC LAN91C111)

### Audio

- AC '97 (Philips UCB1400)
- I²S (Philips UDA1341) – (hardware support only)
- Common audio input/output stage (jumper selectable)
- Support for alternate audio CODECs (hardware only)

### Expansion Buses

- 50 MHz minimum high speed with DMA & bus master, 152-pin connector
- 100-pin low-speed peripheral expansion connector
- 40-pin display connector from processor
- 50-pin display connector from MediaQ MQ-1132 (hardware support only)
- 6-pin backlight header
- 6-pin Bluetooth header
- I²S / AC '97 CODEC header
- I²C, SSP and touch signals available on expansion connectors

### Power Management

- Support for PXA255 Applications Processor modes including:
  - Turbo Mode, Normal Mode, Idle Mode, Frequency Changing Mode and Sleep Mode

- External AC/DC power supply provides 12 VDC, 6 Amp
- Peripheral power supplies controlled by system software
- Variable core frequency
- Current draw monitor points including core power supply

### GPIO and Interrupts

- Available on expansion connectors

### LEDs

- Three LEDs on GPIO
- Two LEDs for Ethernet status
- One LED for battery charging status

### JTAG

- JTAG Connector
- Optional Active JTAG Cable and Utilities Available

### Software Features

- Production quality device drivers & bootloader
- Binary BSP
- Support for Microsoft Windows CE
- Support for third party LINUX implementation

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