

When You Need Proof,  
You Need eyes in the Field.

Take digital colour pictures in the field.  
Capture data on the go. Seamlessly  
connect with the office. Simultaneously  
increase field service productivity and  
improve customer service.

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### Features:

- Intel® PXA270 XScale® (Belverde) Technology Processor - 624MHz
- 320x240 QVGA-TFT Color, sunlight readable display with touch screen
- 512MB - 8GB + System Flash
- Bluetooth® / Wireless LAN (802.11b/g)
- Rugged True-Camera-System- 5.17 MP color CMOS Sensor (4MP processed)
- Scans bar codes & processes digital images (autofocus & illumination)
- 128MB SDRAM
- Lithium battery-backed real-time clock
- Customizations
- Up to 3 serial ports: choice of RS-232, RS-485, RS-422, USB (client)
- IP65
- 1 Year Warranty
- Stylus
- PACK Ready

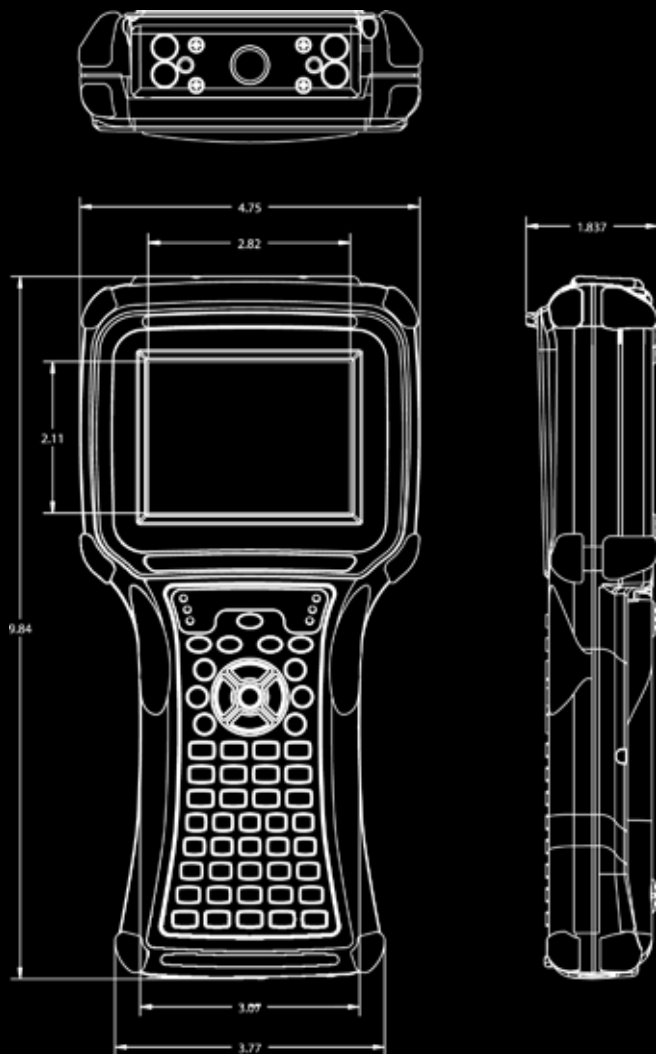
**This every day scenario is now made simple with the Hornet-I.** The rugged handheld IP65 grade PDA captures digital signatures, barcodes, RFID, manual input and thanks to its 5 megapixel camera, high resolution photographic images. This data is transmitted wirelessly to the server for immediate analysis allowing productivity to be increased, wastage to be reduced and costs controlled. Optional extras include plug in temperature probes and GPRS/GPS modules.



**APPLIED  
PRINCIPLES**

*Accountability, Traceability & Stability*

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 hornet-I

## Technical Data

### Display

- 320x240 pixel QVGA-TFT colour with white LED Backlight • Integrated Touch Screen • Sunlight readable, unsurpassed image quality

### Keys, Switches & Indicators

- 45-key membrane (10 rows x 4 columns plus 1 x 5 bottom row) • Keypad feedback: Tactile and Audible • LED backlit keypad (optional) • Power/Resume switch • LED Indicators • 5 programmable • One fixed LED for Low Battery/Charge status (battery unit only) • 8 Definable "Hot" Keys

### Power

- Nickel Metal Hydride rechargeable batteries (2500 mAh, 7.2V) • Recharge/Line Power: 11 to 18 VDC, 15 WATT • 8+ hours average operating time (application dependent)

### Environment

- IP65 Ingress Protection • Storage temperature: -20° to +70°C\* • Operating temperature: -20° to +50°C • Charging temperature: -20° to +40°C\*\* • Humidity: 5-95% (non-condensing)
- \* Temp greater than +55°C dramatically reduces shelf life of battery.
- \*\* Fast charge will not start below 0°C

### Certifications

- IP65 Ingress Protection (Independent Lab Tested) • FCC Class A • EN55022, 1998. (CISPR 22) Class A, EN55022/IEC 6100-4-6 RF CONTINUOUS CONDUCTED • EN55024, 1998 - ETSI EN 301489-1,2002 - ETSI EN 301489-3,2002 - EN/IEC 61000-4-2 ESD - EN/IEC 61000-4-3 RF ELECTRO MAGNETIC FIELD - EN/IEC 61000-4-4 FAST TRANSIENTS • EN60950:2000

### Connectivity

- Wireless:** Personal Area Network - Bluetooth® Class 2 internal • Local Area Network - 802.11b/g internal • Wide Area Network
- Wired:** USB v1.1 - Host and Client Detection on a single On The Go (OTG) Connector • Asynchronous Serial Ports - RS-232, RS-422, RS-485 standards available • Serial System

## Rugged True-Camera System:

- 5.17 megapixel color CMOS Sensor - 4 megapixel processed • Image Capture Resolutions - QSXGA: 2048 x 1944 - SXGA: 1280 x 960 - VGA: 640 x 480 - HF: 320 x 200 • True-Shutter: A variety of standard shutter speeds up to 1/500 of a second • True-Focus System - Macro 2.25" near focus to infinity far focus - eye•WARE Automatic Scene Focus System - eye•WARE Automatic Laser Focus System - Dual precision aligned red Lasers - Software focus system - Software measurement system - Software selectable manual focus • Aperture System - F 8.0 or F 2.8 - Software selectable • High Quality Glass Optics • IR Coated Lens • Polarizing Lens (optional) • True-Light LED Lighting System - Programmable Constant On Mode (50,000 hour life) - Programmable Flash Mode (400 Lumens output) • Automatic Exposure System • Automatic White-Balance System



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## Software

- **Development Environments:** Microsoft® eEmbedded Visual C++® 4.0, Visual Studio® .NET 2003, Visual Studio® 2005 • 2T Utilities CD: JETT SDK, Developer Tools, Code Samples • Custom DLLs, free development consultation

## CPU/Operating System

- Microsoft® Windows® CE 5.0 • Intel® PXA270 XScale® Technology Processor - 624MHz

## eye•WARE™ Software Suite

- eye•SEE™ Software
- eye•D™ Software

## Enhanced Software Options

- Mobile Remote Device Management
- Terminal Emulation

## Memory

- 128MB SDRAM • System Flash

## Peripherals and Accessories

- Desktop and Mobile Battery Chargers • Desktop Cradles • Latch Mounts • Carrying cases • Standard and Custom cables • Pre-Configured 2", 3" and 4" Mobile thermal printers

## Bar Code Symbology

- Code 128 • Code 39

## Powerful, flexible and agile

Of course the changing needs of producers demand the flexibility to adapt; both in areas addressed and in activities required. The Principles Quality Manager will fully integrate with existing warehouse and factory software. Tasks and workflow for locations, sub locations, item categories and item identifiers are fully customisable and due to its multi-language support, can be delivered to devices in the language of choice making data collection and analysis simple yet powerful. Thanks to its concurrent software licensing model, this highly configurable solution can grow in line with business requirements and help to promote the 'right first time' culture throughout the organisation.

- Integrates and works alongside existing warehouse and factory software
- Concurrent user licensing model to allow easy growth of solution
- Eliminate paperwork and transform quality management techniques
- Real time checks against up-to-date specifications
- Non conformances identified and managed immediately
- Legibility of labels and barcodes verified immediately

**“grows in line with business requirements and helps to promote the 'right first time' culture throughout the organisation”**



### The Hornet-I

When you need proof, you need eyes in the field.



When you need proof, you need eyes in the field. This rugged handheld PDA captures barcode, RFID, manual input and photographic data whilst constantly updating the server via its wireless LAN/GPRS networking capabilities.

## Informed decision making

An effective integrated management system, as suggested by ISO, provides informative reporting and trending so that historical data can be analysed in detail to help identify specific quality issues over time. No longer are audit reports just boxed up and ignored. This efficiency alone will justify investment in the solution by providing improved business intelligence which leads to more informed management decisions.



- Identify specific quality issues over time
- Non conformance trend analysis
- Downtime analysis
- Route cause analysis
- KPI Reporting
- Multiple filters

### Data Capture

The software suite runs on a server on your network with licensed client versions running on industrial grade mobile computing solutions across the production floor.

- Rugged design
- Large touch screen with stylus
- Keyboard / Card Swipe
- Barcode Reader / RFID Receiver
- Built in 5 Megapixel Camera with label recognition
- Optional integrated temperature probes (air, immersion, insertion)



### Temperature Module

Inherently accurate due to its novel design.



The Hornet-I Temperature Module measures temperature using platinum resistance thermometers (PRTs). The common industry standard PT100 is supported. PT100 Class A sensors have an accuracy of  $\pm 0.1$  °C. It is inherently accurate due to its novel design.