Embedded Intel386™ EX Processor MHT9000 Handheld Terminal

The MHT9000 has been designed with full expandability. With an appropriate cartridge installed in the expansion slot, the unit can be used as the following applications:

- Portable POS Terminal For Retail
- Handy Terminal For Restaurants
- Barcode Scanner For Inventory Control
- Electronic Multi-Language Dictionary
- Digital Reference Book
- Handheld Terminal With Voice Recognition
- Advanced Pen-Based Organizer
- Intelligent Pen-Based PC Input Device With Character Recognition
- Advanced Pen-Based Organizer With Communication Capabilities

The MHT9000 portable pen-based device features several products and technologies:

- Embedded Intel386™ EX Processor
- 320 x 128 LCD With Touchscreen
- Cartridge Slot With Optional Modules
- Software With Chinese Character and Alphanumeric Handwriting Recognition
- Power Management

The MHT 9000 has the following features:

- 4.5V Design (Optional 3V Support)
- 320 x 128 STN or FSTN LCD Displays 40 x 16 Roman or 20 x 8 Chinese/Kanji Characters
- Resistive Type Digitizer/ Touchscreen With Software Selectable Digitizer Resolution
- Low Cost Cartridge Slot With Modules For:
  – Barcode Scanner
  – Multi-Language Translator
  – Restaurant POS Terminal
  – Voice Recognition Module
  – Electronic Book
- 64KB SRAM, 32K x 16 (Optional 256KB)
- 512KB ROM, 256K x 16
- RS-232C and PC Keyboard Port
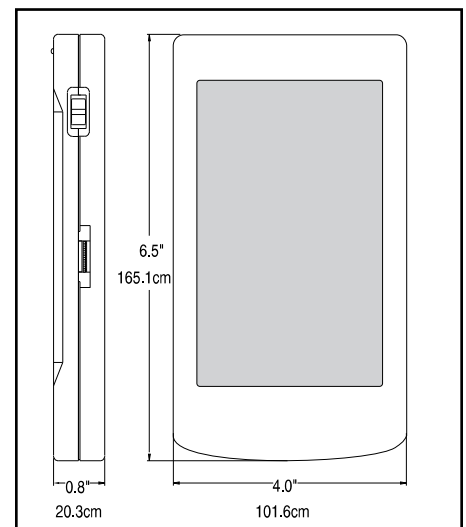- 4.0" x 6.5" x 0.9" Case Size (102 x 165 x 23 mm)

- Powered By 3 AAA-Size Batteries (2 AAA-size For 3V Support)
- Very Low Cost Design

Reference Design Kit

The MHT9000 Reference Design Kit includes:

- Application Note (Details Implementation and Operation Theory)
- Hardcopy Schematics
- Floppy Disk (Contains OrCAD Schematics, PCB Board Layout, and Parts List)
- Intel386 EX Processor Datasheet

Handheld terminal applications are typically characterized by palm-sized portable devices for specific uses. These vertical applications include portable POS, (Point of Sales) auto identification terminals, electronic dictionaries and digital books, language translators, dataloggers, barcode readers, personal communicators, and organizers that are used in a variety of high utility environments, including retail, service, warehouses, inventory control, shipping, package delivery, manufacturing, hospitals, law enforcement, trans-
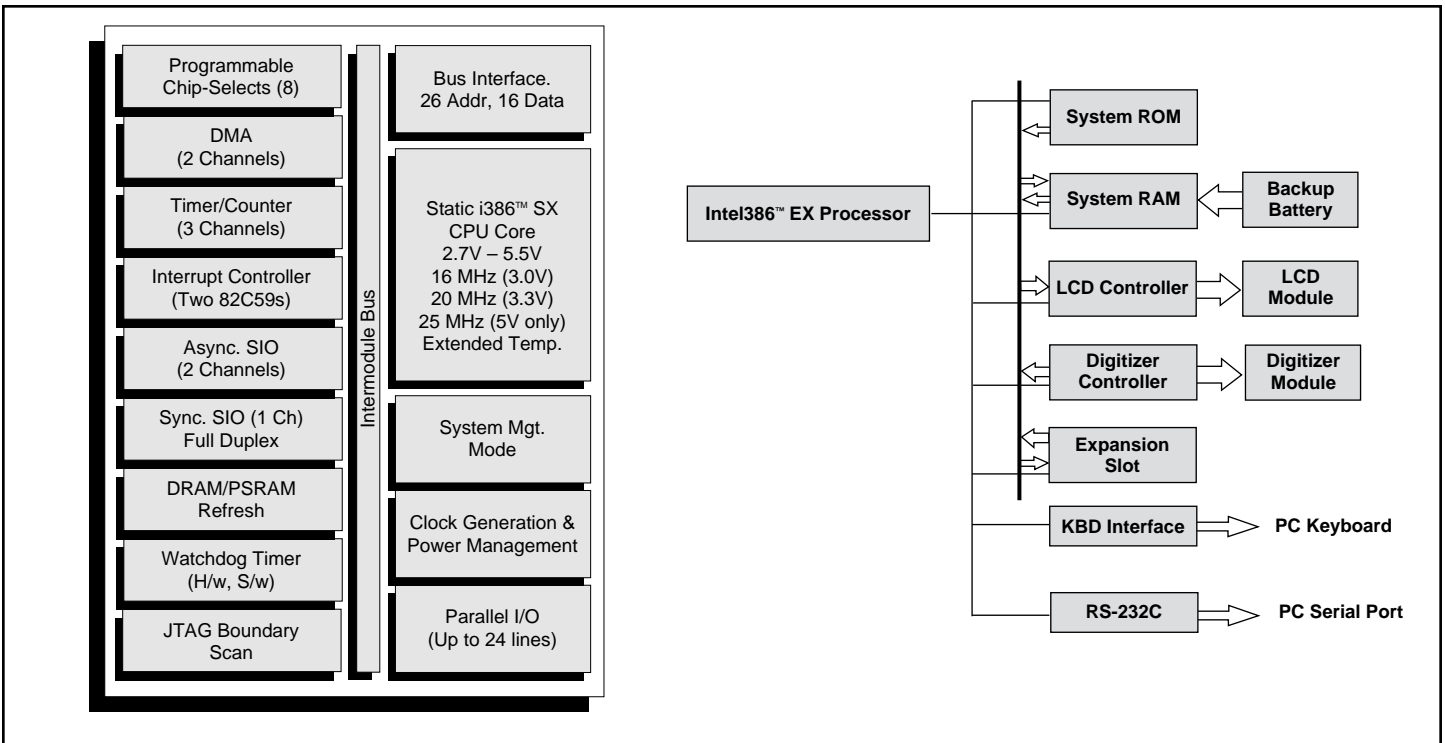

6.5"
165.1cm

0.8"
20.3cm

4.0"
101.6cm

Product Dimensions

CONTACT:

Local Intel Sales Office
WWW: http://www.intel.com/embedded/

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Intel386 EX Processor Block Diagram   MHT Block Diagram

portation, and many others. The Intel386 architecture is ideal to provide sufficient computing power and low-cost solutions for such handheld terminals.

The MHT9000 is a low cost pen-input handheld terminal with a graphical user interface. It was developed as a working Reference Design to enable shorter design cycles by providing a proven base platform as a starting point. The MHT9000 was designed by Micom Tech Ltd. with Intel support and highlights the features of the embedded Intel386 EX Processor in low cost handheld systems. The MHT9000 is available as a Reference Design Kit which contains all necessary technical documentation; the design can be used "as is" or as a building block to enhance a specific solution.

In summary, the MHT9000 Reference Design was developed as a working system to enable shorter design cycles by providing a proven platform as a starting

point. The design, centered around the Intel386 EX Processor, can be used "as is" or as a building block to enhance a specific solution.

Ordering Information
To order the MHT9000 Reference Design Kit call 1 (800) 548-4725 and request order number 272683-001 or contact your local Intel sales office or Micom Tech Ltd. (see above). In Europe and other international locations, please contact your local Intel sales office or distributor.

Intel386 EX Processor
The Intel386 EX Embedded Processor is a highly integrated, 32-bit fully static CPU optimized for embedded control applications. With a 16-bit external data bus, a 26-bit external address bus, and Intel's System Management Mode (SMM), the Intel386 EX brings the vast software library of the Intel386 architecture to embedded systems. It provides the performance benefits of 32-bit program-

ming with the cost savings associated with 16-bit hardware systems.

Micom Tech Ltd.
The MHT9000 is designed by Micom Tech Ltd., a Hong Kong based electronic design firm specialized in the development of advanced products. Over 600 electronic products have been designed since its foundation in 1981. For information, please contact Victor Ng, Managing Director, Micom Tech in Hong Kong at (852) 2838-3138, FAX (852) 2838-3062.