

# Why Choose Advantech?



Industrial grade products at competitive cost



Strict revision control and design reliability



Global logistics and RMA services with local support



Product longevity up to 3-5 years and superior warranty/service options



Customized embedded OS and BIOS services



Partnership with multiple software companies

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| Shenzhen      | 86-755-8212-4222 |                  |                 | Münich                       | 49-211-97477-0      | Irvine               | 1-949-798-7178  |
| Chengdu       | 86-28-8545-0198  | <b>Korea</b>     | 080-363-9494    | Düsseldorf                   | 49-9621-9732-500    |                      |                 |
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|               |                  |                  |                 |                              |                     | São Paulo            | 55-11-5592-5355 |
| <b>Taiwan</b> | 8000-777-111     | <b>Singapore</b> | 65-6442-1000    | <b>France</b>                | 33-1-4119-4666      |                      |                 |
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| HsinChu       | 886-3-516-9320   | Penang           | 60-4-397-3788   |                              |                     |                      |                 |
|               |                  |                  | 60-4-397-4188   | <b>Benelux &amp; Nordics</b> | 31-76-5233-100      |                      |                 |
|               |                  |                  |                 | Breda                        | 31-165-550-505      |                      |                 |
|               |                  |                  |                 | Roosendaal                   |                     |                      |                 |
|               |                  | <b>India</b>     | 1800-425-5070   | <b>UK</b>                    | 44-1491-681144      |                      |                 |
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|               |                  |                  |                 |                              |                     |                      |                 |
|               |                  | <b>Australia</b> | 1300-308-531    | <b>Poland</b>                | 48-22-33-23-740/741 |                      |                 |
|               |                  | Melbourne        | 61-3-9797-0100  | Warsaw                       |                     |                      |                 |
|               |                  | Sydney           | 61-2-9482-2443  |                              |                     |                      |                 |
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|               |                  | <b>Thailand</b>  | 66-2-248-3140   | Moscow                       | 7-495-232-1692      |                      |                 |
|               |                  | Bangkok          |                 |                              |                     |                      |                 |
|               |                  | <b>Indonesia</b> | 62-21-7690525   |                              |                     |                      |                 |
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# Industrial Portable Computers

Boundless Connections in the IoT Era



- Industrial Tablet PCs
- Handheld Terminals
- Industrial PDAs



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## Advantech Industrial Portable Computers



Founded in 1983, Advantech is a global leading ePlatform services provider of web-based technology, computing platforms and customization services, empowering innovations in the connected eWorld. Advantech cooperates closely with solution partners to help provide complete solutions for a wide array of applications in diverse industries. Advantech delivers more than a thousand products and solutions in three business categories: Embedded ePlatform Organization, eService & Applied Computing, and Industrial Automation. With nearly 5,000 talented people, Advantech operates an extensive support, sales and marketing network in 18 countries and 39

major cities to deliver fast time-to-market services to our worldwide customers.

In 2010, Advantech acquired ACA Digital Corporation, a Taiwan-based company founded in 2005, and formed the Industrial Portable Computer team, which specializes in industrial ruggedized portable products as well as design, manufacturing, and integration services. Advantech never stops innovating and always brings portability, security, power and versatility to you!

### Global Service Support

Advantech has over 15 regional toll-free hotlines and offices throughout 39 cities in 18 countries, with nearly 5,000 employees to provide efficient, professional services for customer care, product selection, technical support, and order handling. Through our call centers and online stores, customers worldwide can now enjoy the convenience of Advantech's multi-service channels to reduce business turnaround time. Together with four customer service centers in Taiwan, China, the Netherlands, and the United States, our global service network offers an extensive spectrum of services that includes warehousing, logistics, peripheral certification, sourcing & purchasing, and RMA & support services.



## Boundless Connections in the IoT Era



## Comprehensive Product Portfolio for Mobile Users

### Industrial Tablet PC



### Industrial PDA



### Handheld Terminal



### Design Capability

Industrial Portable Computers offer a line-up of industrial ruggedized portable products as well as design, manufacturing, and integration services. The product line includes ruggedized tablet PCs, handheld terminals, and industrial PDAs, designed to deliver outstanding performance in harsh environments such as warehouses or depots, which are subject to dirt, dust, dropping and rough handling. Best of all they are portable and lightweight in design, and functionality can be extended by way of peripheral attachments.



#### Seamless Communication

Bluetooth and Wi-Fi are built in; optional GPS and 3.5G fulfill all communication needs.



#### Lightweight Design

Lightweight design and a full range of quick-attach accessories including handle, magnetic stripe reader and docking, enhance mobility.



#### Drop Resistance

Products survived a 3 to 5 ft drop to concrete. Durable devices minimize downtime and total cost of ownership.



#### Military Standards

All Rugged Products carry MIL-STD-461E/ MIL-STD-810F military certifications to give users peace of mind.



#### Sunlight Readable Solution

Optional Sunlight Readable solution makes the device easy to operate, indoors and out.



#### Wide Working Temperatures

All rugged products can operate from -20° C to 60° C.



#### Water and Dust Resistance

Products are IP54/65/67 rated for water and dust resistance, and are able to operate in harsh environments.



#### Integrated Peripherals

Standard peripheral options, including RFID, barcode readers, and magnetic stripe readers, offer customization choices to fill unique and niche market needs.

# Semi-Rugged Tablet

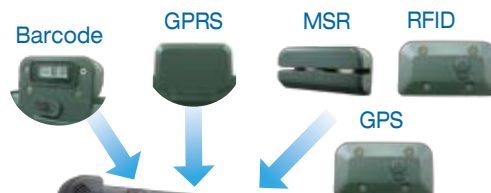
## Introduction

Advantech's Semi-Rugged Tablet series is designed to meet all business requirements; products are portable, lightweight, designed with medium ruggedization, and functionality can be extended by way of peripheral attachments. Their flexibility and mobility make them the most reliable and efficient partners in your business.

## Design Concept

### Easy-on Modularized Peripherals

- ▶ Extend flexibility via various optional peripherals, such as GPS / GPRS / Barcode Scanner / MSR / RFID
- ▶ Special easy-on design



### Rich Array of I/O Ports

- ▶ Supports a variety of applications.
- ▶ All ports with IP54 sealed, locking connectors

### Designed for Long Haul Operation

- ▶ One built-in battery, one external battery, and one battery charging on the dock, max supported-three.
- ▶ Three hot swappable, high-capacity Li-ion batteries provide 8 hours of operation



### Lightweight

- ▶ Only 1.2 kg, high mobility in every domain



## Application Areas

### Warehousing



#### Forklift and Picking Cart Terminal

Advantech Semi-rugged Tablet PCs along with optional barcode scanner modules and GPS make warehousing more intelligent. They help to capture data and transmit real-time information. Semi-Rugged design makes the devices more durable and reduces employer cost.

### Aviation



#### Electronic Flight Bag

S10A is functional and readable in conditions ranging from direct sunlight to full downpours. It is also DO-160D certified, which allows use as an Electronic Flight Bag and makes the pilot more efficient on every journey.

### Hospitality



#### Mobile POS Terminal

Semi-Rugged Tablet PCs provide innovative point-of-sale solutions to educate and inform customers, reduce line wait-time, and streamline customer interactions. The lightweight design and hot swap battery enhance personnel mobility. Optional Wi-Fi and MSR card reader enable speedy payment and order fulfillment.

### Retail



#### Assisted Selling

S10A provides comprehensive assisted selling functions by empowering sales personnel to access relevant information in time via seamless connection between the handheld device and business back-end IT system. Integrated peripherals such as MSR and barcode reader also help the salesperson manage payments. This can shorten customer decision time and sell more products.



### C10L

10.4" Semi-Rugged Tablet PC with AMD Geode LX800 Processor

- ▶ Built-in WLAN and Bluetooth
- ▶ Built-in stand
- ▶ IP53 compliant

### S10A

10.4" Semi-Rugged Tablet PC with Intel® Atom™ Z530XL Processor

- ▶ Efficient Intel® Atom™ Z530 1.6 GHz processor
- ▶ 10.4" XGA LED panel, WAV transfective-LCD, high brightness 300 cd/m<sup>2</sup>
- ▶ Rich array of I/O ports support a variety of applications
- ▶ IP54-certified, 3 ft drop rating from 90 cm, MIL-STD-810F
- ▶ Optional GPS / GPRS / barcode scanner / MSR / RFID
- ▶ Five function keys
- ▶ Hot swap, high capacity Li-ion battery provides 6 hours of operation
- ▶ Hand strap and carry bag with short strap
- ▶ Lightweight, 1.2 kg

# Rugged Tablet PC

## Introduction

Advantech's Rugged Tablet PC family is built with durability and stability in mind; these products survive in the toughest of environments. Rugged designs can resist dust, water, vibration, and falls. All rugged series products make ideal platforms to capture, process, and transfer data according to specific vertical market requirements, such as manufacturing, warehousing, military, aviation, factory maintenance, field services, transportation, police, fire, and other emergency services.

## Design Concept

### Rich Array of I/O Ports

- Supports a variety of applications.
- All ports with IP65 sealed locking connectors.



### Sunlight Readable Solution

- Sunlight readable solution enables viewability in all lighting conditions.
- High luminance: 800 cd/m<sup>2</sup> on XGA solution



### Waterproof Smart Fan

- Mechanical structure encloses waterproof fan, heat sink and bottom case delivers better performance (for X10D only).

### Operates Flawlessly in Demanding Environments

- Rugged design resists water, dust, vibration, shock, and falls.
- With an abundant choice of accessories, products can fit all kinds of vehicles and environments.



## Application Areas

### Emergency



#### Data Terminal

X10 series and its complete range of accessories are customized for disaster rescuers, emergency medical personnel, and fire fighters, as well as policemen who need to stay in patrol cars for a long time. Collect and deliver critical information directly to first-responders with our multiple wireless communications options. The X10 Series special vehicle dock can be installed on various types of vehicles to access information.

### Maintenance



#### Communication Terminal

X10 Series devices are ideal for maintenance workers who need to work long hours outside their offices. Compared with ordinary handhelds, the 10.4" display of the X10 series better presents structure diagrams and many other facility details. X10 series supports Bluetooth, WLAN, WWAN, and GPS; users can access central databanks any time and anywhere.



### Logistics

#### Fleet Management

Truck drivers and warehouse personnel need a durable Tablet PC that can connect to remote databases in real time. During the handling and transportation of goods, X10 series runs multiple wireless radios to help capture and communicate mission critical data and report delivery status and quantities of goods in real time. In addition, it passes vibration and shock tests, plus the sunlight readable solution makes it a perfect partner for logistic workers.

## X10 Series Rugged

- 10.4" XGA high resolution TFT LCD panel
- Sunlight readable and high luminance solution for outdoor applications
- Rich array of I/O ports for a variety of applications
- Durable design with shock-resistant magnesium alloy housing
- Compliant with MIL-STD-810F and MIL-STD-461E standards
- IP65 rated
- Three foot drop test, shock proof



**X10D**  
10.4" Rugged Tablet PC with Intel® Core™2 Duo U7500 Processor

- Efficient Intel® Core™2 Duo processor
- Built-in Wi-Fi/Bluetooth/GPS/WWAN

**X10E**  
10.4" Rugged Tablet PC with VIA Eden Processor

- Low power consumption processor
- Built-in Wi-Fi/Bluetooth/GPS

# Handheld Terminal

## Introduction

Advantech's Rugged Handheld Terminal series is a trusted platform for harsh environments. With HSDPA (3.5G), 802.11b/g, Bluetooth, RFID/HF/LF/UHF, barcode and GPS, the H35 series provides fully-functional communication devices for any outdoor RFID applications. Standard military grade certified, and with IP rating guaranteeing protection against dirt, dust, water and falls, Advantech's handheld devices are strong and rugged for reliable mobile communications in every field.

## Design Concept

### Data Capture Ability

- Supports 1D/2D Linear Imager
- 5 Mega Pixel camera



### Fully-functional for any Outdoor RFID Applications

- Supports HF or UHF RFID



### High Portability and Mobility

- Enable all wireless connections, Bluetooth2.0, HSDPA (3.5G), GPS, Wi-Fi.



## Application Areas

### Logistics



#### Outdoor Logistics Management

Understanding the demand of logistics workers for dispatch accuracy and responsiveness, Advantech provides seamless communication and rugged devices. Numeric keypads make for easy data entry. Optional HSDPA (3.5G) and GPS enable fleet management and route accounting. In addition, IP65, 5 ft drop resistance, and sunlight readability fulfill outdoor usage needs.

### Retail



#### Inventory Management

During the receiving and selling of goods, H35 series runs multiple wireless radios helping to capture and communicate mission critical data to make sure the inventory and ordering information is in real time. The powerful data capture ability enables the retailer to read 1D and 2D barcodes, HF and UHF RFID tags. The IP65-certified H35 series is the most reliable in retail management.

### Museum



#### Guide System

The long distance RFID reading technology makes it easy for tourists to guide themselves in a museum. In addition, rugged design extends the device usage time and saves on cost for the operators.

### Government



#### Parking Lot Management

Advantech Handheld Terminals can be equipped with imaging capability to give officers the ability to scan a barcode on permits, meters and vehicle registrations. The image capture feature allows for vehicle images to be uploaded and stored on central servers for future reference. H35M also equipped with a SAM Card Module ensures information security.



3.5" Rugged Handheld with Marvell PXA 310 Processor

- Marvell PXA310 806 MHz
- 3.5" QVGA TFT LCD
- IP65 rating guarantees total protection against dirt, dust and water
- Certified MIL-STD-810F
- Standard 28 keys including, 4 side keys and numeric keys
- Field navigation application with HSDPA (3.5G), 802.11b/g, Bluetooth, RFID/HF/LF/UHF, barcode and GPS
- Supports Windows® CE6.0
- Handheld, vehicle mounting solution for mobile applications

3.5" Rugged Handheld with Marvell PXA 270 Processor

- Marvell PXA 270 624 MHz core
- 3.5" QVGA TFT LCD transreflective technology
- IP65 rating guarantees total protection against dirt, dust and water
- Certified MIL-STD-810F
- Standard 28 keys including navigation keys, 4 function keys and numeric keys
- High capacity Li-ion battery provides 6 hours of continuous operation
- Outdoor navigation application with HSDPA (3.5G), 802.11b/g, Bluetooth, RFID/HF/LF/UHF, barcode and GPS
- Supports Windows® CE5.0
- Handheld, vehicle mounting solution for mobile applications

# Industrial PDA

## Introduction

Advantech's Industrial PDA is an ultra rugged PDA and fully-functional communication device for any outdoor application. Comes with standard military grade MIL-STD-810F and MIL-STD-461E certification, and is constructed with an IP67 rating guaranteeing total protection against dirt, dust and water. Driven by a high capacity battery, the Industrial PDA handles a 5-foot drop, and operates in an extreme range of operating temperatures, providing mobility in any harsh environment. Advantech's Industrial PDA is a strong device for reliable mobile communications in any environment.

## Design Concept

### Rich I/O for P37B

- Supports a variety of applications



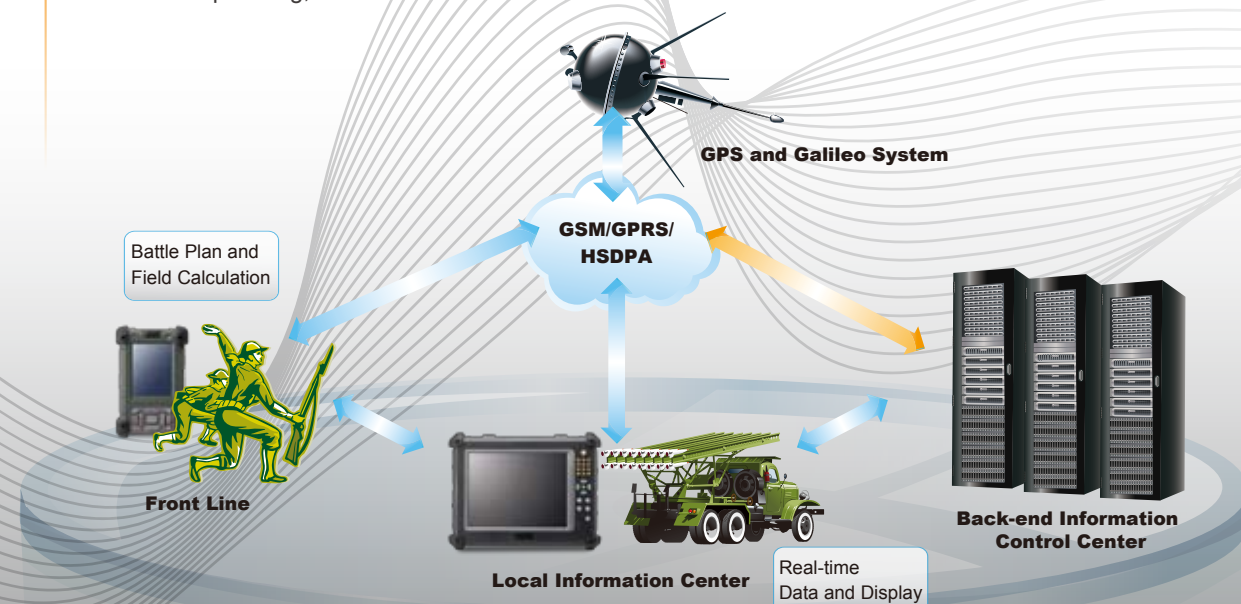
## Successful Application

### Battle Management in the US Military

Ultra-Rugged PDA P37B with IP67 Connector

Military and defense personnel work in some of the most dangerous and demanding environments in the world, facing everything from rain and snow to the harsh realities of modern weaponry. Delivering high degrees of durability and mobility are key factors for military and defense equipment.

MIL-STD-461E and 810F certified P37B survives in harsh environments. In terms of mobility, P37B communicates via wireless technology that links frontline personnel, local station, and central information center. All critical information, including situational awareness, command and control, and mission planning, can be transmitted real time.



## Application Areas

### Military



#### Battle Management

The IP67 certified P37B is designed for data collection in extremely difficult environmental conditions. It operates well in the dust and the intense heat of a desert, in the humidity and moisture aboard ship, or in the shock and vibration of a tank.

### Measurement



#### Measurement Device

Rich I/O of the P37B enables connection to other sensors for specific measurement usage. The IP67 certified P37B is both waterproof and shock-resistant. The built-in GPS function can connect to both European and American GPS systems. No matter where you are, the P37B captures and transmits accurate information.

### Mining



#### Operations and Communications Device

The IP67 certified P37B is operable at high or low temperatures and is waterproof and shock-resistant, ensuring that personnel can work effectively wherever they are. With its sunlight readable display, work progress continues indoors or out.

### Utility



#### Operations and Communications Device

The MIL-STD-810F certified P37B ensures good efficiency and quality on outdoor jobs, such as line walking or oil-well drilling, even in an extremely difficult environment. P37B can transmit real-time data via multiple wireless radios which connect personnel with workstations all the way. P37B also provides handheld, stationary, or vehicle-mounted handling options to fulfill environmental needs.



## P37B

3.7" Ultra Rugged PDA with Marvell PXA 270 Processor

- Marvell PXA 270 624 MHz core
- 3.7" VGA TFT LCD transfective technology
- IP67 rating guarantees total protection against dirt, dust and water
- Certified by MIL-STD-810F and MIL-STD-461E
- Standard 5-way controller and 4 function keys for one-hand operation
- High capacity Li-ion battery provides 6 hours of continuous operation
- Outdoor navigation application with HSDPA (3.5G), 802.11b/g, Bluetooth and GPS
- Handheld, vehicle mounting solution for mobile applications

Selection Guide



| Item/ Model Name         |                            | Semi-Rugged Tablet                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                               | Rugged Tablet                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                            | C10L                                                                                                                                                                                                                 | S10A                                                                                                                                                                                                                                                                                                                          | X10D                                                                                                                                                                                                                                                                                                                                                                                                               | X10E                                                                                                                                                                                                                                                                                                                                                                            |
| Processor                | CPU                        | AMD Geode LX800 500 MHz                                                                                                                                                                                              | Intel Atom Z530XL 1.6 GHz                                                                                                                                                                                                                                                                                                     | Intel Core 2 Duo processor U7500                                                                                                                                                                                                                                                                                                                                                                                   | VIA Eden 1GHz                                                                                                                                                                                                                                                                                                                                                                   |
|                          | Companion Chipset          | AMD Geode CS5536                                                                                                                                                                                                     | US15W XL                                                                                                                                                                                                                                                                                                                      | GME965 & ICH8M                                                                                                                                                                                                                                                                                                                                                                                                     | VIA CX700M (with video acceleration)                                                                                                                                                                                                                                                                                                                                            |
| Memory                   |                            | 512 MB, Up to 1 GB                                                                                                                                                                                                   | DDRII 1G, Up to 2GB                                                                                                                                                                                                                                                                                                           | 1G, one SODIMM DDR II 533 supporting up to 2 GB                                                                                                                                                                                                                                                                                                                                                                    | 256 MB on board, one SO-DIMM supports up to 1GB.                                                                                                                                                                                                                                                                                                                                |
| Storage                  |                            | CF Card: 2G/4GB/ 8GB/ 16GB<br>SSD SLC 32G<br>MLC 32G/64G,                                                                                                                                                            | CF Card: 4GB/ 8GB/ 16GB/ 32GB<br>SSD SLC 32G<br>MLC 32G/64G,                                                                                                                                                                                                                                                                  | 2.5" HDD 80 GB SATA or CompactFlash memory card (up to 16 GB)                                                                                                                                                                                                                                                                                                                                                      | 2.5" HDD PATA 80GB or Compact Flash memory card (up to 16 GB)                                                                                                                                                                                                                                                                                                                   |
| Audio System             |                            | Realtek ALC655 AC97 codec                                                                                                                                                                                            | Realtek ACL 262                                                                                                                                                                                                                                                                                                               | Realtake ALC262                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                 |
| Display                  | Size/ Type                 | 10.4" Transmissive TFT LCD                                                                                                                                                                                           | 10.4" Transflective TFT LCD                                                                                                                                                                                                                                                                                                   | 10.4" Transmissive TFT LCD, optional sunlight-readable display                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | Max. Resolution            | SVGA 800 x 600                                                                                                                                                                                                       | XGA 1024 x 768                                                                                                                                                                                                                                                                                                                | XGA 1024 x 768                                                                                                                                                                                                                                                                                                                                                                                                     | XGA 1024 x 768                                                                                                                                                                                                                                                                                                                                                                  |
|                          | Brightness (cd/m²)         | 250 cd/m² CCFL back light                                                                                                                                                                                            | 300 cd/m² LED back light                                                                                                                                                                                                                                                                                                      | 300 cd/m² CCFL backlight                                                                                                                                                                                                                                                                                                                                                                                           | 300 cd/m² CCFL backlight                                                                                                                                                                                                                                                                                                                                                        |
| Touch Panel              |                            | 4-wire resistive touch panel                                                                                                                                                                                         | 4-wire resistive touch panel / low reflection resistive touch panel (optional)                                                                                                                                                                                                                                                | 4-wire resistive touch panel                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                 |
| Application Buttons      |                            | 5 x function key buttons<br>1 x power switch<br>1 x navigation button                                                                                                                                                | 5 x function key buttons (F1/F2/F3/S1/S2)<br>1 x power button<br>1 x enter key button<br>1 x software keyboard button<br>1 x Mode key                                                                                                                                                                                         | 1 x power button<br>1 x software keyboard button,<br>12 numerical keys (0~9,#,*)<br>4 way navigation button with integrated enter button,<br>4 * programmable function buttons for quick selection of applications                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                 |
| I/O Ports                |                            | 1 x RS-232 port<br>2 x USB 2.0<br>1 x SD card slot<br>1 x RJ45 LAN port<br>1 x Audio jack external microphone<br>1 x Audio jack external headphone<br>1 x VGA-out connector<br>1 x DC-in Jack, 1 x docking connector | 1 x RS-232<br>2 x USB 2.0 ports,<br>1 x SD card slot (1.0)<br>2 x 1W internal stereo speakers,<br>1 x internal mono microphone<br>1 x PCMCIA Type II slot, supports Cardbus 2.1<br>1 x VGA DB15,<br>1 x DC-in jack<br>1 x docking connector<br>1 x Audio in jack<br>1 x Audio out Jack<br>SIM card slot (optional with WWLAN) | 2 x USB 2.0 host connector<br>2 x RS-232/422/485 (Factory Option)<br>1 x VGA output<br>1 x CF Type II slot<br>1 x PCMCIA Type II slot, supports CardBus 2.1<br>1 x internal mono microphone<br>1 x internal stereo speaker<br>1 x RJ45 for 10/100/1000MB Ethernet<br>1 x audio jack for stereo headphone<br>1 x audio jack for microphone<br>1 x DC-In<br>1 x docking connector<br>1 x 3G SIM card Slot (optional) | 2 x USB 2.0 host connector<br>2 x RS-232/422/485 (Factory Option)<br>1 x VGA output<br>1 x CF Type II slot<br>1 x PCMCIA Type II slot, supports CardBus 2.1<br>1 x internal mono microphone<br>1 x internal stereo speaker<br>1 x RJ45 for 10/100/1000MB Ethernet<br>1 x audio jack for stereo headphone<br>1 x audio jack for microphone<br>1 x DC-In<br>1 x docking connector |
| Communication and Device | Standard                   | 802.11 a/b/g WLAN module<br>Bluetooth class 2, v2.0 + EDR built-in                                                                                                                                                   | 802.11 b/g/n<br>Bluetooth V2.0 + EDR<br>CCD camera, 2M pixel<br>Fingerprint<br>TPM 1.2                                                                                                                                                                                                                                        | 802.11 a/b/g WLAN module<br>Bluetooth class 2, v2.0 + EDR                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | Factory Options (optional) |                                                                                                                                                                                                                      | RFID 13.56M ( ISO1443A )<br>Barcode 1D( Hardware decode )<br>2D ( Software decode )<br>WWLAN GPRS/3G/3.5G<br>MSR 1+2+3 track<br>GPS Module ( with antenna )                                                                                                                                                                   | WWAN<br>GPS Module                                                                                                                                                                                                                                                                                                                                                                                                 | External Wi-Fi Antenna<br>GPS Module                                                                                                                                                                                                                                                                                                                                            |
| Dimensions & Weight      |                            | 295 x 238 x 30 ~ 39 mm, 1.6 kg                                                                                                                                                                                       | 264 x 213 x 18 mm, 1.2 kg                                                                                                                                                                                                                                                                                                     | 310 x 236 x 42 mm, approx. 2.9 kg                                                                                                                                                                                                                                                                                                                                                                                  | 310 x 236 x 42 mm, approx. 2.79 kg                                                                                                                                                                                                                                                                                                                                              |
| Power                    | Battery                    | Rechargeable Li-ion smart battery, 14.8V @ 2200 mAh ( internal battery )                                                                                                                                             | Rechargeable Li-ion smart battery, 11.1V @ 1900 mAh (internal battery)<br>11.1V @ 3800 mAh (External battery)                                                                                                                                                                                                                 | Rechargeable Li-ion smart battery, 11.1V, 5000mAh, 352P                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | Power Adapter              | Universal AC 100V~240V, 50~60Hz input, 19V, 3.16A output                                                                                                                                                             | Universal AC 100V~240V; 50~60Hz input 19V, 3.16A output                                                                                                                                                                                                                                                                       | Universal AC 100V~240V, 50~60 Hz input; 19V, 3.16A output                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                 |
| Environment              | Operating Temperature      | 0° C ~ +40° C                                                                                                                                                                                                        | 0° C ~ +40° C                                                                                                                                                                                                                                                                                                                 | -20° C ~ +60° C                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | Storage Temperature        | -20° C ~ +60° C                                                                                                                                                                                                      | -20° C ~ +60° C                                                                                                                                                                                                                                                                                                               | - 40° C ~ + 70° C                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | Operating Humidity         | 5%~95%                                                                                                                                                                                                               | 5%~95%                                                                                                                                                                                                                                                                                                                        | 5%~95%                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                 |
| OS                       |                            | Windows XP Embedded<br>Windows XP Pro embedded<br>Linux (Optional)                                                                                                                                                   | Windows XP Embedded<br>Windows XP Pro embedded<br>Windows 7 Pro embedded                                                                                                                                                                                                                                                      | Windows XP Embedded<br>Windows XP Pro embedded<br>Windows 7 Pro embedded                                                                                                                                                                                                                                                                                                                                           | Windows XP Embedded<br>Windows XP Pro embedded                                                                                                                                                                                                                                                                                                                                  |
| Rugged Certification     |                            | IP53 rating<br>Multiple 70 cm drop                                                                                                                                                                                   | IP54 rating ( All )<br>3 Foot drop to plywood<br>MIL-STD-810F                                                                                                                                                                                                                                                                 | IP65 rating<br>3 Foot drop to concrete<br>MIL-STD-461E<br>MIL-STD-810F                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                 |
| Certifications           |                            | CE, FCC, ETL-US, Semko-GS, ROHS, WEEE                                                                                                                                                                                | CE, FCC, VCCI, BSMI, C-tick, CCC, DO-160, CB, UL, ROHS, WEEE                                                                                                                                                                                                                                                                  | CE, FCC, VCCI, C-tick, A-Tick, TUV, CB, CCC, JATE, WEEE                                                                                                                                                                                                                                                                                                                                                            | CE, FCC, VCCI, C-tick, CB, ETL, Semko, CCC                                                                                                                                                                                                                                                                                                                                      |
| Accessories              |                            | Cradle                                                                                                                                                                                                               | Carrying Bag+Shoulder Strap<br>Hand Strap+ Shoulder Strap<br>VESA Mount<br>Stand<br>Cradle<br>Car Adaptor                                                                                                                                                                                                                     | Desk Docking<br>Handstrap and Shoulder Strap<br>Holster<br>DC-DC Adaptor x 1 (Input 12 ~ 32 VDC or 36 ~ 48 VDC Vehicle Adaptor)<br>VESA Mount<br>Vehicle Mount<br>Vehicle Docking                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                 |



| Item/ Model Name         |                            | Handheld Terminal                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                          | Industrial PDA                                                                                                                                                                                                                                                                       |
|--------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                            | H35M                                                                                                                                                                                                      | H35B                                                                                                                                                                                                                                                                                     | P37B                                                                                                                                                                                                                                                                                 |
| Processor                | CPU                        | Marvell PXA310 806 MHz                                                                                                                                                                                    | Marvell PXA270 624 MHz                                                                                                                                                                                                                                                                   | Intel PXA270 624 MHz                                                                                                                                                                                                                                                                 |
| Memory                   |                            | 256 MB DDR RAM on board                                                                                                                                                                                   | 128 MB SDRAM on board                                                                                                                                                                                                                                                                    | 256 MB SDRAM on board                                                                                                                                                                                                                                                                |
| Storage                  |                            | 1 GB Flash ROM on board                                                                                                                                                                                   | 128 MB Flash ROM on board                                                                                                                                                                                                                                                                | 1 GB Flash ROM on board                                                                                                                                                                                                                                                              |
| Audio System             |                            | AC-97, built-in Internal microphone and one speaker                                                                                                                                                       | AC-97 codec, built-in internal speaker                                                                                                                                                                                                                                                   | AC-97, built-in Internal microphone and one speaker                                                                                                                                                                                                                                  |
| Display                  | Size/ Type                 | 3.5" transflective TFT LCD                                                                                                                                                                                | 3.5" transflective TFT LCD                                                                                                                                                                                                                                                               | 3.7" transflective TFT LCD                                                                                                                                                                                                                                                           |
|                          | Max. Resolution            | QVGA resolution (320 x 240)                                                                                                                                                                               | QVGA 240 x 320                                                                                                                                                                                                                                                                           | VGA 480 x 640 /QVGA 240 x 320                                                                                                                                                                                                                                                        |
|                          | Brightness (cd/m²)         | 100 cd/m² LED back light                                                                                                                                                                                  | 100 cd/m² LED back light                                                                                                                                                                                                                                                                 | 100 cd/m² LED back light                                                                                                                                                                                                                                                             |
| Touch Panel              |                            | 4-wire resistive touch panel                                                                                                                                                                              | 4-wire resistive touch panel                                                                                                                                                                                                                                                             | 4-wire resistive touch panel                                                                                                                                                                                                                                                         |
| Application Buttons      |                            | 28 keys including navigation, function and numeric keys<br>37 keys numeric keys (optional)<br>One side button for Barcode scan (optional)<br>One side button for RFID trigger (optional)                  | 28 keys including navigation, function and numeric keys<br>37 keys including navigation, function, QWERTY and numeric keys (optional)<br>Two side buttons for Barcode scan (optional)<br>Two side buttons for RFID trigger (optional)                                                    | 1 x power on/suspend button<br>1 x software reset switch<br>Navigation key and four function keys<br>1 x HW reset key located right side door<br>1 x button for backlight on/off (using power on/ suspend button)                                                                    |
| I/O Ports                |                            | 1 x SIM Card slot<br>1 x SAM Card slot<br>1 x Micro SD slot<br>1 x cradle connector (USB host x 1, USB slave x 1, RS232 x 1 (full), DC)                                                                   | 1 x USB type A connectors, USB1.1 host<br>1 x USB mini type B connector, USB1.1 slave<br>1 x RS-232 (full)<br>1 x SD slot<br>1 x PCMCIA/CF slot (option)<br>1 x stereo headphone jack<br>1 x microphone jack<br>1 x cradle connector (USB host x 1, USB slave x 1, RS232 x 1 (full), DC) | 2 x USB type A connectors, USB1.1 host<br>1 x USB mini type B connector, USB1.1 slave<br>1 x RS-232 (full),<br>1 x RS-232/422/485 (optional)<br>1 x RJ-45 for 10/100M Ethernet (USB type)<br>1 x CF slot<br>1 x stereo headphone jack<br>1 x microphone jack<br>1 x DC-In connector" |
| Communication and Device | Standard                   | 802.11b/g WLAN module built-in<br>Bluetooth class 2, v1.2 built-in with integral antenna                                                                                                                  | 802.11b/g WLAN module built-in<br>Bluetooth class 2, v1.2 built-in with integral antenna                                                                                                                                                                                                 | 802.11b/g WLAN module built-in<br>Bluetooth class 2, v1.2 built-in with integral antenna                                                                                                                                                                                             |
|                          | Factory Options (optional) | GPS & GALILEO receiver with antenna built-in (for data transmission only)<br>WWAN 3.5G module built-in Barcode 1D / MRZ/Fingerprint/ 5Mega CCD (Supports 2D barcode)<br>HF RFID reader<br>UHF RFID reader | WWAN 3.5G module built-in (for data transmission only)<br>GPS<br>Barcode 1D 2D<br>LF RFID reader (*1)<br>HF RFID reader (*2)<br>UHF RFID reader (*3)                                                                                                                                     | GPS & GALILEO receiver with antenna built-in<br>GSM/GPRS/WCDMA/HSDPA (3.5G) internal module (for data transmission only)                                                                                                                                                             |
| Dimensions & Weight      |                            | 155 x 80 x 35mm, 500 g                                                                                                                                                                                    | 210 x 100 x 43 mm, 570 g (standard)<br>251 x 100 x 48 mm, 720 g (w/GPS cover)<br>344 x 140 x 48 mm, 860 g (w/RFID cover)                                                                                                                                                                 | 155 x 96 x 42 mm, 650 g                                                                                                                                                                                                                                                              |
| Power                    | Battery                    | Rechargeable Li-ion smart battery, 3.7V,3600mAh/4800mAh                                                                                                                                                   | Rechargeable Li-ion smart battery, 7.4 V, 1900 mAh, 1P2S (20 x 34 x 50 mm)                                                                                                                                                                                                               | Rechargeable Li-ion smart battery, 7.4 V, 1880 mAh, 2S1P, 59 x 38 x 25 mm                                                                                                                                                                                                            |
|                          | Power Adapter              | Universal AC 100 V ~ 240 V, 47 ~ 63 Hz input, 12 V, 2 A output.                                                                                                                                           | Universal AC 100 V ~ 240 V, 47 ~ 63 Hz input, 12 V, 2 A output.                                                                                                                                                                                                                          | Universal AC 100 V ~ 240 V, 47 ~ 63 Hz input, 12 V, 3.5 A output                                                                                                                                                                                                                     |
| Environment              | Operating Temperature      | -20° C ~ +60° C                                                                                                                                                                                           | -20° C ~ +60° C                                                                                                                                                                                                                                                                          | -20° C ~ +60° C                                                                                                                                                                                                                                                                      |
|                          | Storage Temperature        | -20° C ~ +65° C                                                                                                                                                                                           | - 40° C ~ + 70° C                                                                                                                                                                                                                                                                        | - 40° C ~ + 70° C                                                                                                                                                                                                                                                                    |
|                          | Operating Humidity         | 5%~95%                                                                                                                                                                                                    | 5%~95%                                                                                                                                                                                                                                                                                   | 5%~95%                                                                                                                                                                                                                                                                               |
| OS                       |                            | Windows CE.60                                                                                                                                                                                             | Windows CE.5.0                                                                                                                                                                                                                                                                           | Windows CE 5.0<br>Windows Mobile 6.1                                                                                                                                                                                                                                                 |
| Rugged Certification     |                            | IP65<br>5 Foot drop to concrete<br>MIL-STD-810F                                                                                                                                                           | IP65 rating<br>5 Foot drop to concrete<br>MIL-STD-810F<br><br>*With RFID or GPS cover<br>IP64 rating, 3ft drop to concrete                                                                                                                                                               | IP67<br>5 Foot drop to concrete<br>MIL-STD-461E<br>MIL-STD-810F                                                                                                                                                                                                                      |
| Certifications           |                            | CE, FCC, CCC                                                                                                                                                                                              | CE, FCC, CCC                                                                                                                                                                                                                                                                             | CE, FCC, CCC                                                                                                                                                                                                                                                                         |
| Accessories              |                            | Vehicle Mount<br>Cradle<br>USB Converter Cable<br>Power Charger Cable                                                                                                                                     | Carry Hand Bag<br>Vehicle Mount<br>Cradle                                                                                                                                                                                                                                                | Military Connector<br>Hand Strap<br>Vehicle Mount<br>Cradle                                                                                                                                                                                                                          |

(\*1). RFID MODULE (ISO11784, ISO11785) & antenna built-in (reading distance10±1.5 cm)  
(\*2). RFID Module (ISO14443A, ISO14443B,ISO15693) & antenna built-in (reading distance 4 ~ 6 cm)  
(\*3). RFID Module (EPC Gen2 Class 1, ISO 18000-6C) & (reading distance 1 ~ 2.1 m)