

# MRC 2100-E

Rugged Fanless Tablet PC with Intel® Atom™ Processor/  
Daylight Readable Display/Touch Screen/WiFi/Bluetooth/GPS



## Main Features

- ◆ Intel® Atom™ CPU 1.1GHz and 1.6GHz (2W~2.4W)
- ◆ Built-in WiFi 802.11b/g/n/Bluetooth module/GPS
- ◆ Built-in mobile broadband module, support GSM/GPRS/HSDPA/WCDMA (optional)
- ◆ Daylight readable display
- ◆ Built-in 1D/2D laser barcode scanner or RFID (optional)
- ◆ 1 x Navigation key and 4 x Programmable function keys
- ◆ Rugged design- meet multiple MIL specs
- ◆ GPS support RF passing to external antenna through vehicle docking station

## Product Overview

The MRC 2100-E is designed for mobile workers requiring real-time information who cannot access desktop-pc or laptop. The IP-54 rating rugged design makes the durable MRC 2100-E suitable for use in even harsh environments. The built-in 802.11b/g/n & bluetooth modules provide excellent mobility. With the powerful 3.5G mobile broadband engine, the MRC 2100-E can benefit users by efficiently utilizing existing broadband whilst expanding service coverage. For logistic and warehouse management applications the MRC 2100-E is equipped with a built-in barcode scanner and RFID interface. Onboard GPS and sunlight readable LCD make the MRC 2100-E ideal for outdoor applications. Applications including but not limited to - asset management, building automation, mobile CRM, meter reading, on-site troubleshooting, AVL/GIS/mapping, field data collection, plant operations, quality control, WIP tracking, surveillance/inspection, surveying, mobile POS, shelf labeling, fleet management, marine navigation, shipping/receiving, health care services, etc.

## Specifications

### CPU Support

- ◆ Intel® Atom™ processor 1.1 GHz and 1.6 GHz with 512 KB on-die L2 cache, 400MHz/533MHz FSB (2W~2.4W)

### Chipset

- ◆ Intel® System Controller Hub US15W (single chip integrated graphics and I/O controller)

### Main Memory

- ◆ 1GB DDR SDRAM-533 MHz, support up to 2GB (optional)

### Storage

- ◆ 8GB Solid State Drive/SATA interface, 60GB 1.8" HDD/PATA interface

### Audio

- ◆ ALC888-VC2-GR HD Codec
- ◆ AC '97 Compatible
- ◆ 2 x 2w built-in speaker
- ◆ 1 x external Mic-in and 1 x external Line-out

### Display

- ◆ 8.4" TFT LCD, MITSUBISHI: AA084SA01, panel support 800 x 600 SVGA 18 bit TFT LCD or 1024 x 768 resolution via driver (virtual mode)
- ◆ Touch Screen: Analog Resistive 4 wire daylight readable touch screen
- ◆ Ambient light sensor for LCD backlight control

### I/O

- ◆ 2 x External USB 2.0 port; 1 x Mini USB (Client)
- ◆ 1 x Finger Printer Sensor

- ◆ 1 x Mic-in/Line-out
- ◆ 1 x 2M pixel CMOS camera
- ◆ 1 x 19V DC power input

### Communication

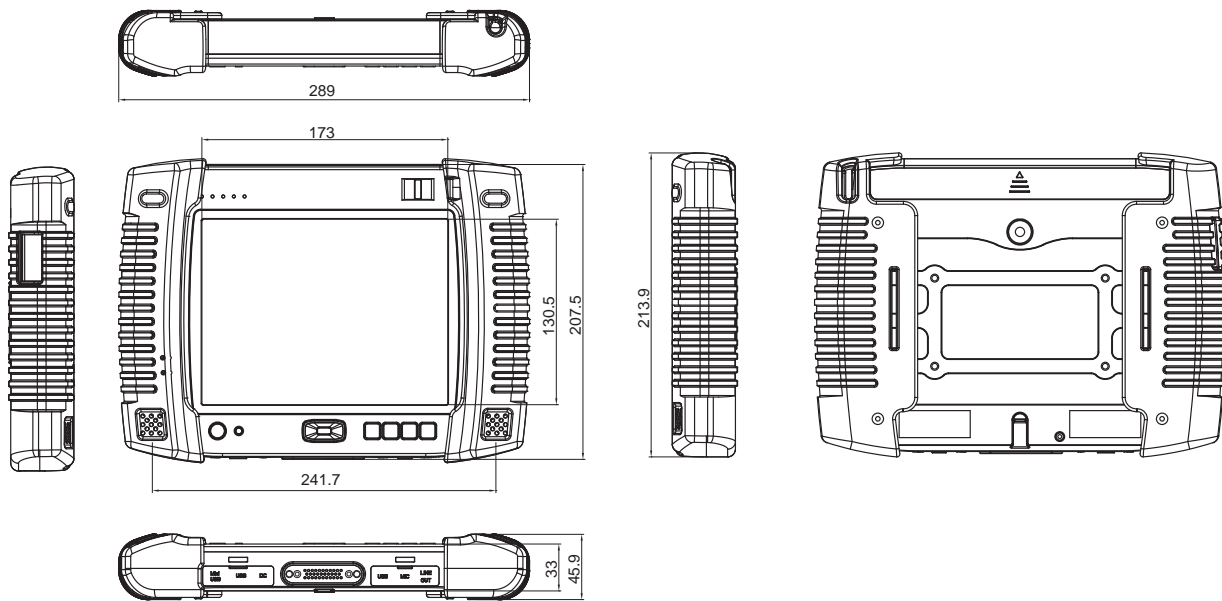
- ◆ 1 x Class 2 Bluetooth Module V 2.1 + EDR
- ◆ 1 x WiFi Module (802.11 b/g/n)
- ◆ 1 x GPS Module
- ◆ 1 x Mobile broadband Module, support GSM/GPRS/HSDPA/WCDMA (optional)
- ◆ 1 x RFID Module, 13.56MHz, support Tag of ISO1443A/B and ISO15693 (optional)
- ◆ 1 x 1D/2D Barcode scanner (optional)

### Indicators and Buttons

- ◆ Power on/off Status (Blue LED on power switch)
- ◆ Battery Status (Green LED: Battery Discharged/Glows Orange: charging/fully charged: Battery LED turn off)
- ◆ Battery Low (Battery LED: Glows Green and Power LED Glows Blue)
- ◆ Wireless on/off LED (Orange LED on Wireless on/off switch ,Glows Orange is being accessed)
- ◆ Hard Disk Drive Status (Green LED: Glows Green HDD is being accessed)
- ◆ 4 x Programmable function keys
- ◆ Navigation key
- ◆ Power on/off switch
- ◆ Wireless on/off switch
- ◆ Camera snap shot button
- ◆ Barcode scanner button



## Dimension Drawing



### Power Input

- Power Input Voltage: DC 19V/3.42A
- Power Output: 65W (Max)
- Internal Battery: Rechargeable 3 Cell (3S1P) Lithium Ion Smart Battery Pack (2600 mAh@11.1V, 28.86W/hr) Over Charge Protection, Over Discharge Protection, Over Current and Output Short

### Dimensions

- 289mm (W) x 214mm (H) x 46mm (D) with Rubber
- 280mm (W) x 205mm (H) x 37mm (D) without Rubber
- Weight: 1.65Kg with Rubber; 1.35Kg without Rubber

### Construction

- Plastic – upper and lower housing (ABS + PC)
- Color: Black

### Environment

- **Operating Temp: -20°C to 50°C**  
Tested MIL-STD-810F methods 501.4, 502.4
- **Storage Temp: -30°C to 60°C**  
Tested MIL-STD-810F methods 501.4, 502.4
- **Thermal Shock: -20°C to 50°C**  
Tested MIL-STD-810F method 503.4
- **Rel. Humidity: 0 to 95%**  
Tested MIL-STD-810F method 507.4
- **Vibration 5G PTP at 5-500Hz**  
Tested MIL-STD-810F method 514.5C-3 (Highway truck)
- **Transit Shock: 4 feet drop, polywood, all surfaces, edges and corners (26drops)**  
Tested MIL-STD-810F method 516.5
- **Mechanical Shock: 20g, 11ms, Terminal Sawtooth, Operating 40g, 11ms, Terminal Sawtooth, Non-Operating**  
Tested MIL-STD-810F method 516.5
- **Crash Shock: 75g, 11ms, Terminal Sawtooth**  
Tested MIL-STD-810F method 516.5
- **Rain: Drip Proof, 7 gal/ft<sup>2</sup>/hr**
- **Compliance: MIL-STD-810F and IP54**

### Certifications

- CE approval
- FCC Class B

## Ordering Information

- **MRC 2100-E51H (P/N: 10U00210007X0)**  
8.4" Fanless Ruggedized Tablet PC  
with Intel® Atom™ 1.1GHz Processor/60GB HDD/1GB Memory/Daylight Readable Touch Screen/GPS/WiFi/Bluetooth
- **MRC 2100-E51S8 (P/N: 10U00210008X0)**  
8.4" Fanless Ruggedized Tablet PC  
with Intel® Atom™ 1.1GHz Processor/8GB SSD/1GB Memory/Daylight Readable Touch Screen/GPS/WiFi/Bluetooth
- **MRC 2100-E53S8 (P/N: 10U00210009X0)**  
8.4" Fanless Ruggedized Tablet PC  
with Intel® Atom™ 1.6GHz Processor/8GB SSD/1GB Memory/Daylight Readable Touch Screen/GPS/WiFi/Bluetooth
- **Optional Accessory Ordering Information for MRC 2100-E**  
1D Laser Barcode Scanner-Opticon (P/N: 88U00210004X0)  
2D Laser Barcode Scanner-Opticon (P/N: 88U00210010X0)  
RFID Module: HF type 13.56MHz (P/N: 88U00210003X0)  
Vehicle Docking Station (P/N: 10UK0DOCK00X0)  
Desktop Docking Station (P/N: 10UK0DOCK02X0)  
Holding Bracket (P/N: 50501A0325X00)  
4 slots Battery Charger (P/N: 10UK0BATT00X0)  
HSDPA Mobile Card Pack w/ Antenna: Sierra MC8790V (P/N: 88U00210006X0)  
Carry Case (P/N: 6019900015X00)  
Spare Battery Pack (3S1P) (P/N: 4ZTSS26301X00)  
Vehicle Cigarette Adaptor Charger (P/N: 7400065007X00)  
USB to VGA Adaptor (P/N: 7500VGA004X00)  
USB to Giga LAN Adaptor (P/N: 7500LAN005X00)  
Windows XP Pro for Embedded Software Kit (P/N: 88U00210008X0)  
Windows XP Embedded Software Kit (P/N: 88U00210009X0)  
Power Cable (US) (P/N: 60233POW38X00)  
Power Cable (EU) (P/N: 60233POW39X00)  
Power Cable (UK) (P/N: 60233POW40X00)

**RUGGEDMOBILE**  
TOUGH TECHNOLOGY  
FOR TOUGH ENVIRONMENTS

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