



## Features

- SIM socket supports Dual WWAN
- Removable 2.5" device bay
- Ignition power-on signal control
- Onboard CANbus
- Rich I/O interfaces for wireless, SSD, GPS, WWAN and add-on card expansion
- Add on card slots reset function
- Quick accessible RTC battery

## Specifications

System Mainboard	MBT-1002V
CPU Type	Intel® Atom® x7-E3950 Processor
Processor Speed	1.6GHz , up to 2.0GHz
Memory	Onboard 4GB LPDDR4 memory (Intel® N3350 SKU) Onboard 8GB LPDDR4 memory (Intel® E3950 SKU)
Construction	Matel
Chassis Color	Black
Front panel I/O	<p>1x DVI-D connector for display connection 1x VGA DSUB15 2x RJ45 for GbE LAN 1x 3,5mm blue color audio connector for line input 1x 3,5mm pink color audio connector for MIC-Input 2x external accessible SIM socket (Coved) 1x external micro SD card slot (Coved together with SIM card holder) 1x Stack USB connector for 2x USB3.1 (#1/#2) 1x DUSB 9 for COM1 RS-232/485 1x DUB9 for COM2 RS-485 isolated 1x DSUB15 for DIDO 6in/6out isolated</p> <p><b>6x insulated DO:</b></p> <ul style="list-style-type: none"> <li>- Output type: Darlington transistor</li> <li>- Sink current •500 mA for one channel @100% duty</li> <li>- Source current •500 mA for one channel @100% duty cycle</li> <li>- Supply voltage: 5V-35V DC</li> <li>- Isolation voltage: 2500V RMS</li> </ul> <p><b>6x insulated DI:</b></p> <ul style="list-style-type: none"> <li>- Maximum input range •24V, non-polarity</li> <li>- Digital logic levels •0~24 V, non-polarity</li> <li>- Input high voltage: 5V~24V</li> <li>- Input low voltage: 0~1.5V</li> <li>- Input resistance: 1.2 k @ 0.5W</li> <li>- Isolation voltage •2500V RMS</li> </ul> <p>1x tack switch for system reset 1x tack switch for Add-on cards reset 1x tack switch for power firmware load default</p> <p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>- 1x Green color LED for power status</li> <li>- 1x White color LED for storage activity status</li> <li>- 1x Blue color LED for WLAN activity status (option)</li> <li>- 1x Orange color LED for WWAN activity status (option)</li> <li>- 1x Green color LED, programmable</li> <li>- 1x Red color LED for warning of wrong power voltage connected</li> <li>- 1x Blue color LED for external battery connected</li> </ul>
Rear Panel External I/O	<p>2x DSUB9 for COM3/4 RS232 1x 4 pins terminal block for 2 masters CANbus 1x USB3.0 flag type-A 1x audio jack for line out 1x tack switch for clear CMOS 1x open window for accessing RTC battery 1x 6-pins ATX connector for external battery, and 19V DC(Max:1A) output 1x blade fuse socket with cover 1x dip switch for selecting power mode: CAR/DC 1x 3-pin thermainl block connector for power input and IGN</p>

Storage	1x 2.5" device bay for SSD/HDD 1x mSATA via miniPCI-E slot
Expansion slots	1x miniPCI-E full/Half-size, supports mSATA 1x miniPCI-E full/Half-size, supports second SIM card 1x M.2 B-key 30x42 with USB 2.0 and USB 3.0 signal only, supports first SIM card
Power Supply	9V~32V DC input(10%) without backup battery power 12V~32V DC input with backup battery Ignition detection: enable (Car mode)/ disable (DC mode) Reverse protection
Mounting	Side mounting, rack mounting with optional bracket
Dimensions	300 (W) x 158.4 (D) x 66 (H) mm 11.8" (W) x 6.23" (D) x 2.6" (H)
Operating Temperature	-40°C~70°C, with SSD, not including add-on cards (Intel® E3950 SKU) -5°C~50°C, with SSD, not including add-on cards (Intel® N3350 SKU)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Relative Humidity	10 ~ 95% @ 45°C, (non-condensing)
Vibration	Operating/Non-operating: 2,26 Grms (5~500 Hz) / MIL-STD-810G composite wheeled condition (Z-axis only)
Shock	Non-operating: Sawtooth: 40G, 11 msec (Z-axis) Operating: Sawtooth: 20G, 11 msec (Z-axis)
Certified	E-Mark, CE (EN 62368 / EN55032 / EN55025)/ FCC Class-A

## Ordering Information

MPT-1000V8GM	Intel® E3950 processor, 8G LPDDR4 RAM onboard, 9V~32V DC input (12V~32VDC if connected with backup power), ignition detection, no OS, adaptor and storage
MPT-1000VNM	Intel® N3350 processor, 4G LPDDR4 RAM onboard, 9V~32V DC input (12V~32VDC if connected with backup power), ignition detection, no OS, adaptor and storage

## Dimensions

