

MDT Series Product Selling Features

2018/08/09 V.18B



Always on rugged

- 01** Introduction
- 02** Products
- 03** Tailored Accessories
- 04** Applications & Scenarios

Stay Connected



RuggON MDT is purpose-built device for in-vehicle application. The device specially tailored for smart and efficient fleet management:

- ◆ **Platform choices** : Intel® Atom™, Quad Core Cortex
- ◆ **Advanced display** : 500 nits brightness with auto-dimming and PCT supported
- ◆ **Smart power management** : 9-36 VDC input with vehicle grade power protection, CAN bus / SAE J1939 supported
- ◆ **Uninterrupted navigation and tracking** : GNSS with dead-reckoning
- ◆ **Dedicated device management platform** : DashON



Mobile Data Terminal (MDT)

MT Series Key Features

Always on rugged



Optimized Visibility

- 500 nits
- Auto-dimming



Vibration & Shock

- MIL-STD-810G



Wide Temperature

- -30 ~ +60°C



Vehicle Status Monitor

- CAN bus / SAE J1939



Wide Range Power

- 9 ~ 36VDC
- ISO7637-2 protection



Driver Identification

- NFC, RFID



Navigation & Route

- GNSS
- Dead reckoning



Seamless Communication

- GPRS
- 4G LTE
- WiFi
- Bluetooth



Easy Access & Operating

- Programmable Button



Sensor & Control

- G-sensor, DIO



Easy Setup & Development

- DashON app & SDK

Outlook : Front View

MT7000 :

Windows 10 IoT Enterprise
Intel® Atom™ E3815 1.46GHz
Optional Intel® Atom™ E3826 1.46GHz

MT7010 :

Quad Core Cortex-A7 1.1GHz / 1.3 GHz



Ambient Light Sensor

Function Buttons

- System on/off
- Volume adjustment

LED Indicators

- System status
- WWAN enable

Internal Microphone

Speakers

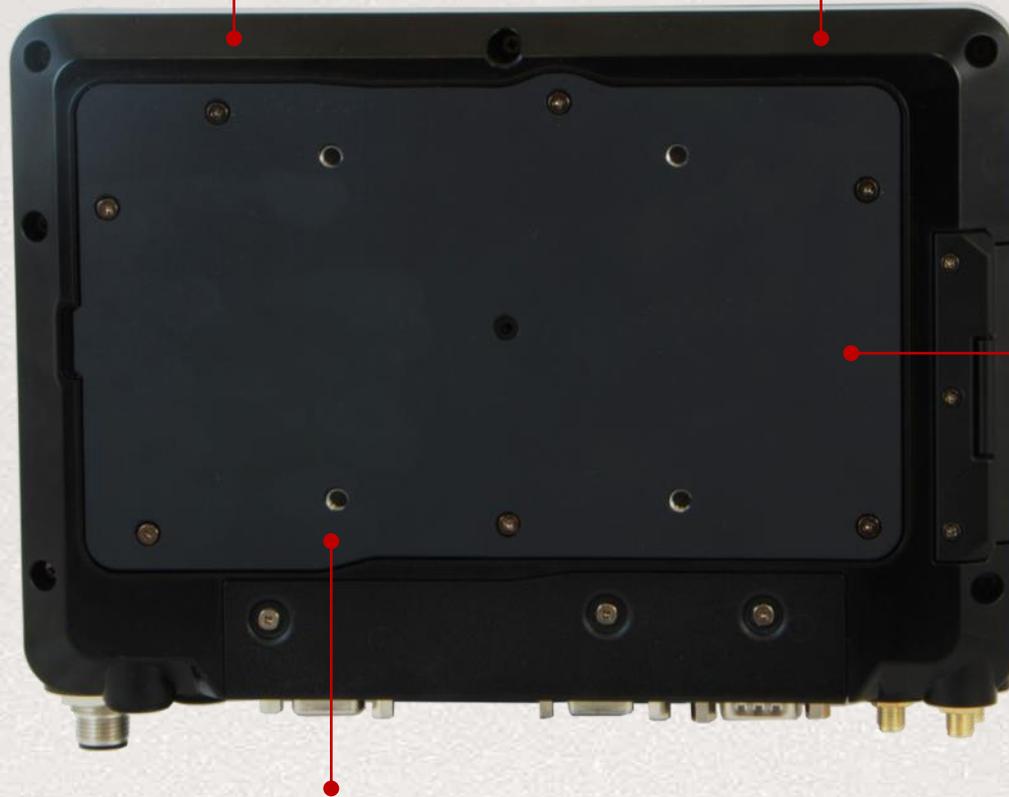
- Dual 2W speakers

Programmable Button

Outlook : Rear View

Internal Antenna

- Wi-Fi + Bluetooth
- WWAN



Service Door

- Internal micro SIM slot

Standard Mounting Interface

- VESA 75 supported
- Easy for mounting installation

Outlook : Bottom View



◆ System

- CPU :
 - ✓ MT7000 : Intel® Atom™ E3815 1.46GHz, optional Intel® Atom™ E3826 1.46GHz
 - ✓ MT7010 : Quad Core Cortex-A7 1.1GHz / 1.3GHz
- 2GB DDR3L SODIMM (MT7000), 1GB / 2GB SDRAM (MT7010)
- Micro SD slot, mSATA (MT7000), 8GB / 16GB eMMC (MT7010)
- Built-in dual speaker, 3-axis G-sensor

◆ Display

- 7-inch WSVGA TFT LCD (1024 x 600), 500 nits
- Capacitive multi touch (PCT)
- Support auto-dimming

◆ Communications

- Gigabit Ethernet (RJ45)
- GNSS (GPS/ GLONASS/ BeiDou), MT7000 supports dead-reckoning
- 4G LTE / HSPA+ / GPRS
- Wi-Fi 802.11 a/b/g/n (MT7010), optional Wi-Fi 802.11 a/b/g/n/ac (MT7000)
- Bluetooth
- NFC/ RFID by request (MT7000)

◆ Power Management

- 9~36 VDC input
- Vehicle power protection (ISO7637-2)
- Ignition sense with delay on/off setting
- Wake on RTC (MT7000)
- UPS backup battery

◆ Function Button

- Programmable Button x 5, System on/off x 1, Volume adjustment x 2

◆ I/O

- RS-232 with power supported x 1, RS-232/422/485 x 1
- USB 3.0 x 1, USB 2.0 x 1 (MT7000); USB 2.0 x 2 (MT7010)
- Dual Micro SIM slot x 1
- CAN bus (SAE J1939 supported) x 1
- Digital I/O x 4 (DI x 2, DO x 2))
- Audio headset jack x 1
- DC-in x 1

◆ Rugged Features

- IEC 60529 IP65 (except bottom side I/O)
- Vibration (operating) : MIL-STD-810G, Method 514.7 c2/c3/c4
- Shocking (operating) : MIL-STD-810G, 40G at 11ms Terminal / Sawtooth

◆ Environmental (Tested to MIL-STD-810G standards)

- Operating Temperature -30°C to +60°C (MT7000); -20°C to +60°C (MT7010)
- Storage Temperature -30°C to +70°C
- Humidity 5~95%

◆ Dimensions & Weight

- 220 x 152 x 40 mm; 1.25 kg

◆ Certification

- CE, FCC, eMark

◆ Software

- DashON

Rich Mobile Communication

◆ Flexible to expand varied wireless connection capability

- WiFi 802.11 a/b/g/n/ac and Bluetooth class B V4.0 / V4.1
- High speed broadband support up to 4G LTE

◆ Mobile hotspot support

- Gateway role for other devices to connect to the Internet

◆ Bluetooth Multi-Channel Adaptation

- File transfer and headset via Bluetooth V4.0 / V4.1 at the same time



Positioning on Track

Always on rugged

- ◆ **Multi-GNSS Positioning – Concurrent Positioning**
 - Support all GNSS (GPS/QZSS, GLONASS, BeiDou) & SBAS systems
 - Increase the availability and accuracy of GNSS
- ◆ **GPS with dead-reckoning supported**



Stay Connected



Smart Power Management

- ◆ Vehicle-grade power protection (ISO7637-2) against sudden surges, noise filtering, overvoltage/ lower voltage, overcurrent, and other car power hazards.
- ◆ 9 ~ 36 VDC wide range power input with backup battery.
- ◆ CAN bus / SAE J1939 supported
- ◆ Ignition sense support with delay on/off setting
- ◆ Power on device for routine job via RTC setting



Integrated NFC / RFID Design

NFC standard : NFCIP-1 (ISO/IEC 18092) and NFCIP-2 (ISO/IEC21481)

- Multi protocol HF RFID tag support : ISO15693, ISO14443A/B...etc.
- Border crossing
- Usage : Driver Identification



Device Management Platform : DashON

Always on rugged



- ◆ System information
- ◆ Device configuration
- ◆ SDK provided
- ◆ Over the air update



Tailored Accessories

Other Optional Accessories



WIFI / BT Antenna



WWAN Antenna



Mounting Kit



Applications & Scenarios

Application Diagram



Food Safety and Freshness

MDT ensures goods in the given temperature range during the distribution and storage, and records the temperature change if abnormal.

- ◆ DIO for variety sensor connection.
- ◆ Intuitive interface and programmable button for easy operation.
- ◆ GPS / 4G LTE for route planning, location monitoring & message alert
- ◆ Health readiness via CAN bus (SAE J1939).



Smooth & Connective

MDT's seamless in-vehicle connectivity enables fleet management more efficiently and effectively.

- ◆ Intuitive interface and programmable button for easy operation.
- ◆ GPS with dead-reckoning ensures uninterrupted navigation and tracking.
- ◆ Health readiness via CAN bus (SAE J1939).
- ◆ 4G LTE link to cloud database.
- ◆ Backup battery.

