VIKING
Mobile Data Terminal

Selling Features

2020/03/25 V20A

Always on rugged

Contents

VIKING

Design Concept

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

- **Platform choices :** Qualcomm® Snapdragon™ 660 Octa-Core
- **Smart power management :** 9-36 VDC input with vehicle grade power protection with ignition sense and backup battery
- **Health readiness :** Raw CAN bus, optional SAE J1939 support
- **Diverse wireless connectivity for field usage :** Wi-FI, BT, 4G LTE, NFC
- **Uninterrupted navigation and tracking :** GNSS with Dead Reckoning support
- **Android 9 Pie with Google Mobile Services certified**

Product

Key Features

Optimized Visibility
- 500 nits
- Auto-dimming

Vibration & Shock
- MIL-STD-810H

Wide Temperature
- -20 ~ +60˚C

Vehicle Status Monitor
- Raw CAN bus / SAE J1939

Wide Range Power
- 9 ~ 36VDC
- ISO7637-2 protection

Navigation & Route
- GNSS
- Dead Reckoning

Seamless Comm.
- 4G LTE
- Wi-Fi
- Bluetooth

Driver Identification
- RFID/ NFC

Easy Access & Operating
- PCAP Touchscreen
- Programmable Button

Sensor & Control
- G-sensor, DIO

Outlook : Front View

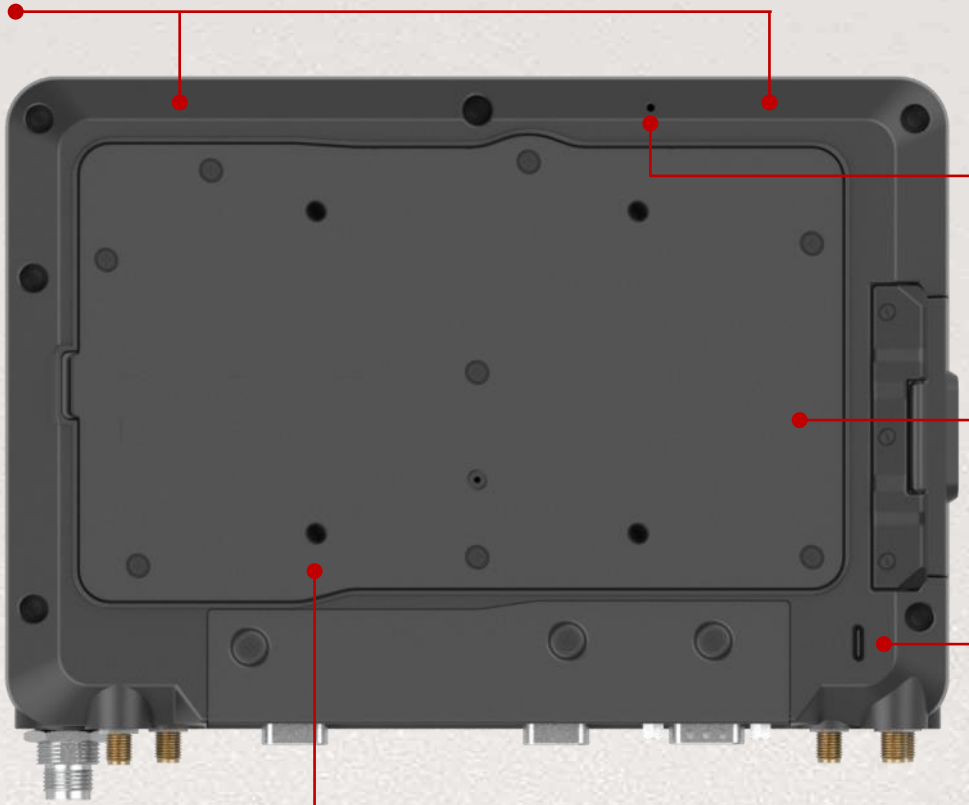
VIKING

Qualcomm® Snapdragon™ 660 Octa-Core
1.9GHz, 3G RAM, 32GB eMMC, GNSS,
LTE/WLAN/BT, NFC and Android 9 GMS

- 1st Internal Microphone
- Ambient light sensor
- Power
- Volume
- LED Indicators
  - System status
  - WWAN enable
- Speaker
- Function buttons
- RFID/ NFC
- Speaker
- Camera (by request)

Outlook : Rear View

Internal Antenna
- Wi-Fi + Bluetooth
- WWAN



2nd Internal Microphone

Service Door
- Internal micro SIM slot

USB Type-C DP Alt Mode

Standard Mounting Interface
- VESA 75 supported
- Easy for mounting installation

Outlook : Bottom View

VIKING Specifications

- **System**
  - Qualcomm® Snapdragon™ 660 Octa-Core, 1.9GHz
  - 3GB LPDDR4 SDRAM
  - 32GB eMMC storage
  - Built-in 3-axis G-sensor, dual speaker
  - OS : Android 9.0, Google Mobile Services (GMS) certified
- **Display**
  - 7” TFT LCD WSVGA (1024 x 600), 500 nits brightness
  - Capacitive multi touch (PCT)
  - Support auto-dimming
- **Communication**
  - GNSS (GPS / GLONASS / BeiDou/ Galileo), optional Dead Reckoning support
  - 4G LTE / WCDMA / GSM
  - IEEE 802.11ac 2x2 MU-MIMO
  - Bluetooth V5.0
  - NFC
- **Function Button**
  - Programmable button x 5
  - System on/off x 1
  - Volume button x 2
- **Power Management**
  - 9~36 VDC input
  - Vehicle power protection (ISO7637-2)
  - Ignition sense with delay on/off setting
  - UPS backup battery
- **I/O Interface**
  - RS-232 with power supported x 1
  - RS-232/422/485 x 1
  - Gigabit Ethernet (RJ45) x 1
  - USB 2.0 x 2
  - USB 3.1 type C x 1 (DisplayPort Alt Mode supported)
  - Micro SD slot x 1, Micro SIM slot x 2
  - Raw CAN bus, optional SAE J1939 support
  - 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 : MIL-STD-810H Method 514.8 C2/C4/C6
  - Shock : MIL-STD-810H, 40G at 11ms Terminal/ Sawtooth
- **Environmental (Tested to MIL-STD-810H standards)**
  - Operating temperature: -20ºC to +60ºC
  - Storage temperature: -30ºC to +70ºC
  - Humidity: 95%, non-condensing
- **Dimensions & Weight**
  - 219.98 x 151.98 x 40.80 (mm); 1.25 kg
- **Certification**
  - CE, FCC, eMark

Rich Mobile Communication

- Flexible to expand varied wireless connection capability
  - WiFi 802.11 a/b/g/n/ac and Bluetooth V5.0
  - High speed broadband support up to 4G LTE
- Mobile hotspot support
  - Gateway role for other devices to connect to the Internet
- Multiple tasks
  - Able to connect to multiple devices
  - Run multiple functions at the same time: File transfer and play music/ VOIP call via Bluetooth V5.0

Positioning on Track

- **Multi-GNSS positioning – concurrent positioning**
  - Support all GNSS (GPS/QZSS, GLONASS, BeiDou, Galileo)
  - Increase the availability and accuracy of GNSS
- **GNSS with Dead Reckoning support**

Smart Power Management

- Vehicle-grade power protection (ISO7637-2) against sudden surges, noise filtering, overvoltage/ lower voltage and overcurrent protection
- 9 ~ 36 VDC wide range power input with backup battery.
- Ignition sense support with delay on/off setting

Easy Identification

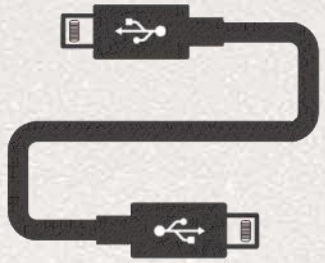
Built-in NFC Design

- RF Protocols Supported:
  - NFCIP-1 (ISO/IEC 18092) and NFCIP-2 (ISO/IEC21481)
  - Mifare, FeliCa
  - ISO15693, ISO14443A/B...etc.
- Usage: Driver Identification

Second Display Available

Second Display Support

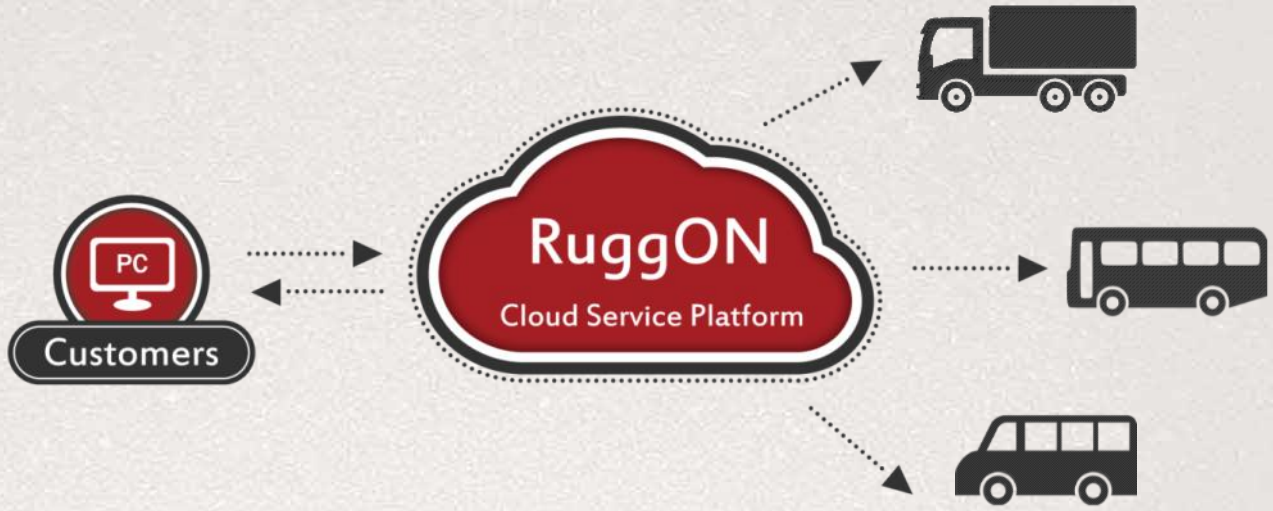
- Easy to get external display by simple one cable:
  USB Type-C Display Port Alt Mode
- Support Clone mode with max. 1024 x 600 resolution



Over-the-Air Update Service

RuggOTA

- Securely-update your devices anytime anywhere
- Remotely update your devices with Android OS image, firmware, software to decrease maintenance costs
- RuggOTA services are real-time, secure, and easy to use



Tailored Accessories

Other Optional Accessories

WIFI / BT Antenna

WWAN Antenna

GNSS Antenna

Mounting Kit

Applications & Scenarios

Application Diagram

Fleet Management

Smooth & Connective

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

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

Public Transportation

Real Time Information

Present the real time information to passenger and transparent data for management to improve the service quality.

- GNSS with Dead Reckoning ensures uninterrupted navigation and tracking.
- NFC reader for drivers identification
- 4G LTE network for communication
- Varied sensors in monitoring and safety control for Intelligent Transportation System (ITS) devices