AAEON®
an ASUS assoc. co.

RTC
RUGGED TABLET COMPUTERS
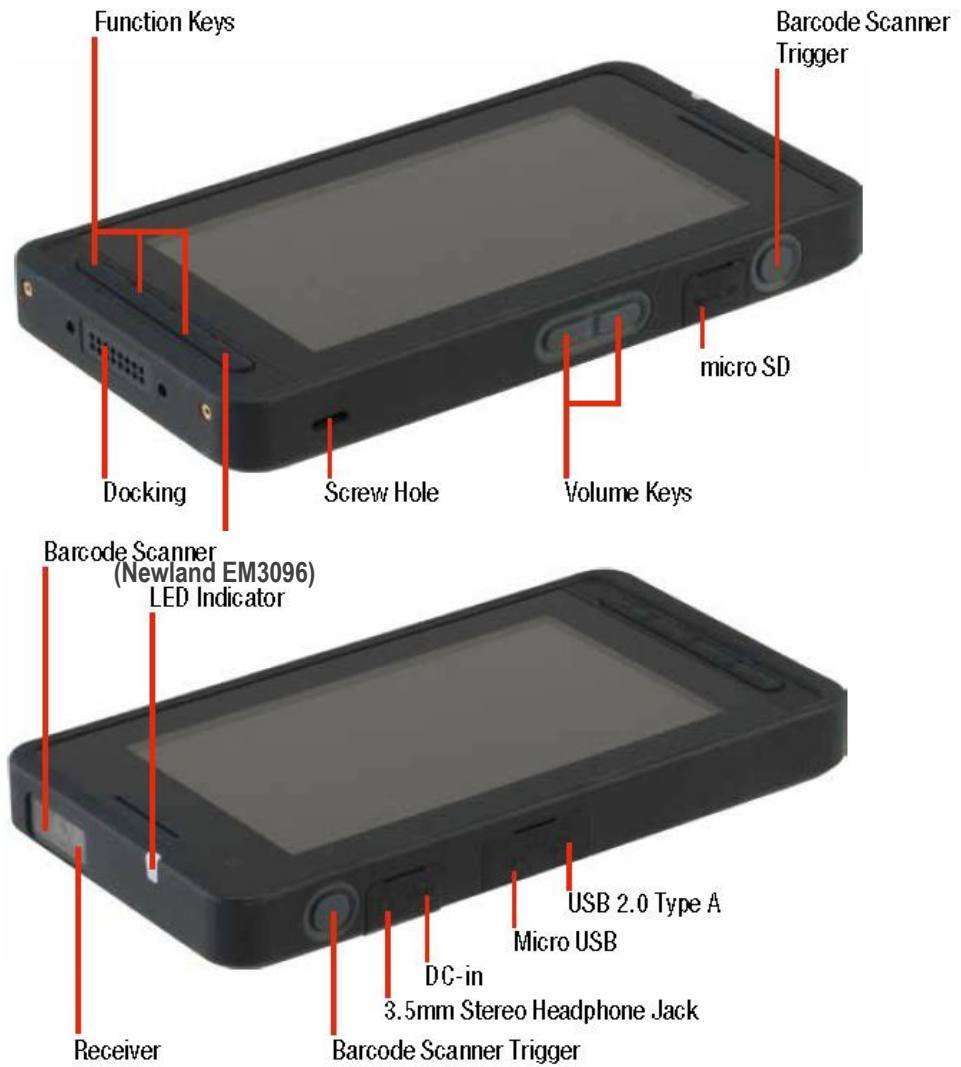
Presenter: Pascal Borgstijn - BDM Europe   **www.rtc-tablet.com**

Upgraded RTC-600

Improved RTC-600A:
* Quad-core Processor
* Android 6.0
* 2GB RAM
* NFC RFID
* LTE

W = 99.8mm

H = 185mm

D = 21.4mm

8MP Camera

Flash

Battery Cover

Function Keys

Barcode Scanner Trigger

micro SD

Docking

Screw Hole

Volume Keys

Barcode Scanner
(Newland EM3096)

LED Indicator

USB 2.0 Type A

Micro USB

DC-in

3.5mm Stereo Headphone Jack

Receiver

Barcode Scanner Trigger

1. **IP67** Dust -and Waterproof
2. **Internal & Hot-Swappable battery**: 2 x 1530mAh (up to 8hrs operation)
3. **Brilliant 420 nits** illuminant Gorilla Glass panel
4. **Powerful Rockchip RK3288 1.6 GHz Quadcore Processor and 2GB RAM**

- HD 5.7" [1280 x 720] Projected Capacitive 5-Point Touch Display
- 16GB of standard storage, expandable with MicroSD card slot
- **Android 6.0 Operation System**
- Wi-Fi a/b/g/n and Bluetooth 4.0
- 3G/LTE (850/1900/2100MHz) network support, GPS & GLONASS support
- **8MP Camera** with Flash
- **1D/2D CMOS barcode reader** for all common used barcodes with a reading distance of up to 30 cm
- NFC/RFID reader 13.56MHz
- Operational temperature from -20°C to +50°C
- **MSRP** price from **USD 800**

Vehicle Mounting Arm
(picture of RTC-700)

Vehicle DC-DC Charger

OTG USB Cab

Carry Bag

Battery charger for up to 4 batteries
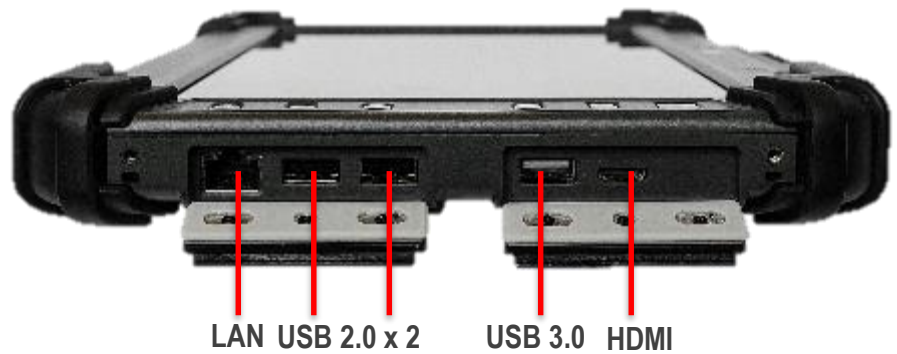
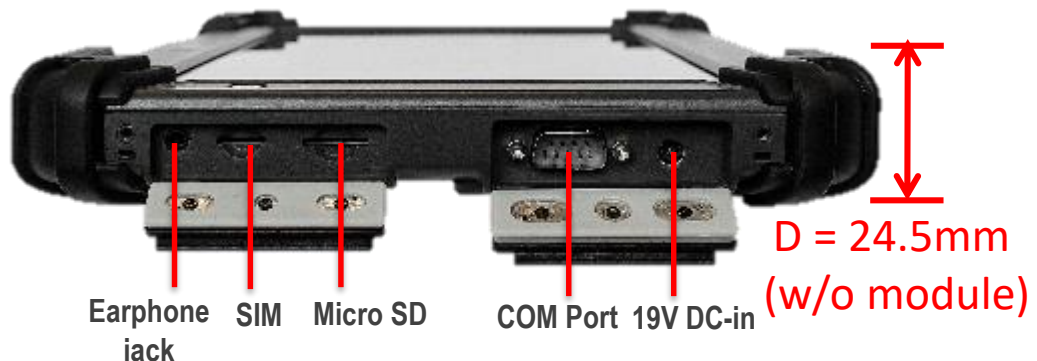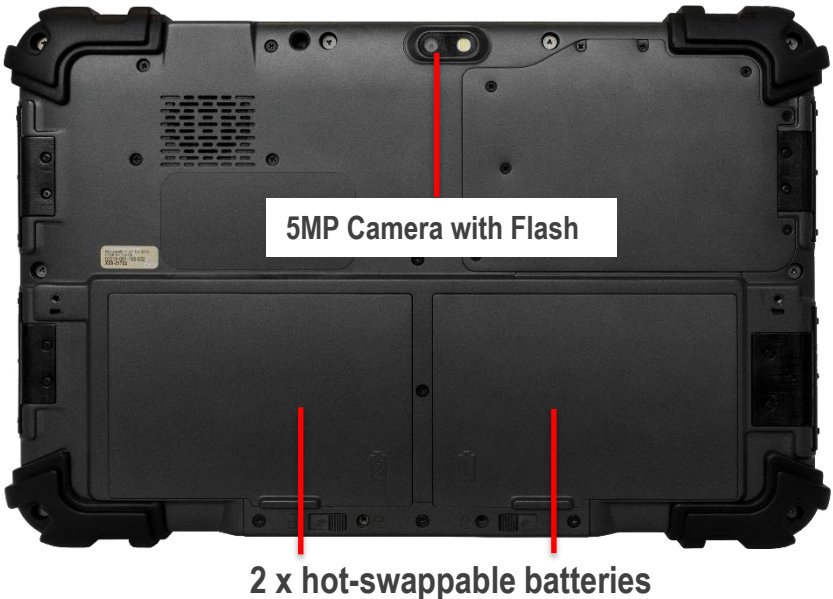Docking station with DC-in, USB x2, RJ45, RS-232

RTC-1200

1D/2D Barcode Reader   NFC

2MP Camera

"Windows" and volume keys

Function Keys

H = 200mm

W = 310.4 mm

5MP Camera with Flash

2 x hot-swappable batteries

Kensington lock hole

Earphone jack   SIM   Micro SD   COM Port   19V DC-in

D = 24.5mm (w/o module)

LAN   USB 2.0 x 2   USB 3.0   HDMI

Docking connector

1. **Latest 6th Generation Intel® Core™ Processors (Celeron, i3, i5 or i7)**

2. **FHD** 11.6" [1920 x 1080] Projected Capacitive **Touch** Display with pressure sensor for **operation in rain/with gloves**
   Brilliant up to **1000 nits** illuminant Gorilla Glass panel

3. **Multi I/O slots** with Ethernet, COM, HDMI, 3 x USB (of 1 x USB 3.0)

4. **2 x Hot-Swappable batteries** (up to 8hrs operation)

- **4GB RAM** (optionally up to 8GB RAM), 64GB of standard M.2 SSD storage

- **Windows 10** IoT Enterprise

- Wi-Fi **a**/b/g/n (ac optional), Bluetooth **4.1 + EDR**

- Optional 3G (850/1900/2100MHz) network support (4G optional)

- **Accessories to meet market demands** such as 1D/2D barcode scanner, (Vehicle) Docking Station, Rotating Hand strap, stylus, etc.

- **IP65** dust and water-proof

- Operational temperature from **-20°C to +60°C**

- **MSRP from 1,668 USD**

1D/2D Barcode Scanner

"Customization" module

Opticon MDI-4100 CMOS sensor
- 1D Barcodes:
Code 39/128, EAN/UPC, Codabar, IF2/5,
GS1 Databar, etc.
- 2D Barcodes:
(Micro)PDF417, (Micro)QR code, Data Matrix,
Aztec, etc.

- Easy service cover 3G module, RAM and SSD
- Easy to customize for project-based module such as card/passport reader, fingerprint reader, UHF RFID, etc.

Rotating Hand strap with Stylus holder

Swivel Portfolio Case

VESA Mount

Shoulder carry strap

Active Stylus
(only for RTC-1200)

4-point
back/shoulder
strap

Battery charger for up to
4 batteries
With multi-led charging
% indicator

Key lock

Available with or without stand (VESA 75 mountable)

2 x USB 2.0
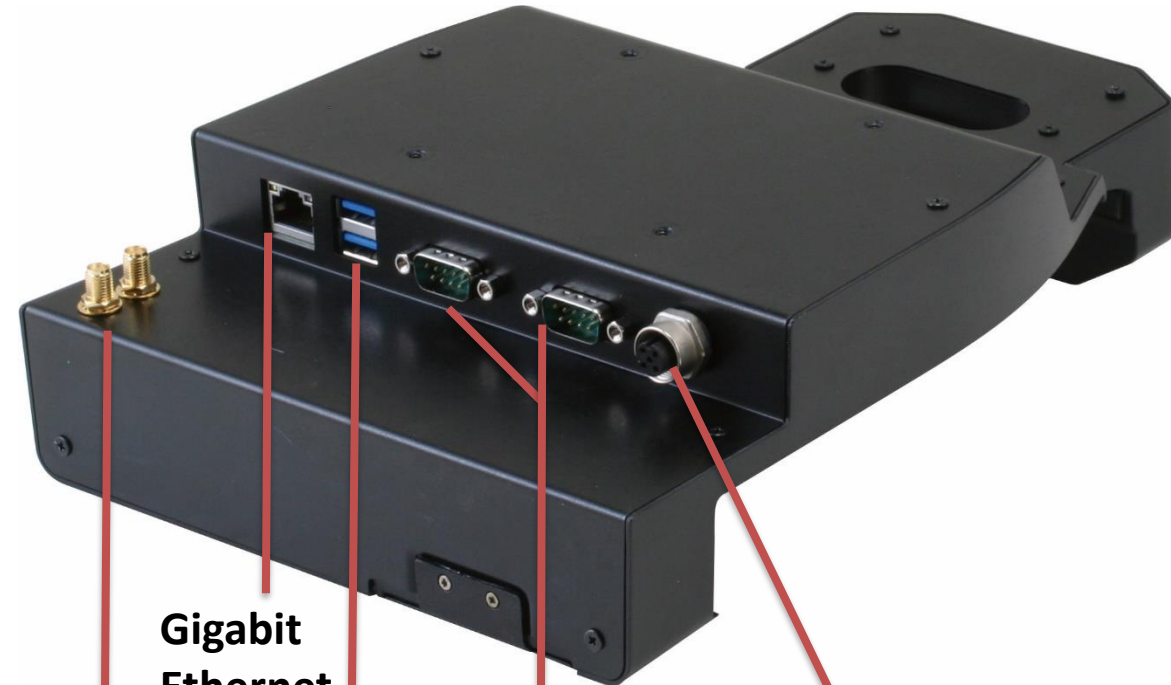
GNSS / WWAN Antennas

Gigabit Ethernet

Dual-port USB 3.0

M12 5P Female DC-In (9-36V)

2 x DB9 COM-port (1 x with 5V on pin 9; 1 x 8-pin GPIO)

FAQ's

- **When opting for LTE, which frequencies do you support?**
    - We support bands 800, 900, 1800 -and 2100MHz
    - For 2600MHz we adopt a new antenna, customization needed
    - To check for your country/operator what you need: **https://en.wikipedia.org/wiki/List_of_LTE_networks_in_Europe**

- **What is the accuracy of the uBLox GNSS modules used in RTC's?**
    - Horizontal position accuracy: 2-2.5 m

- **What is the Gorilla Glass version on RTC products?**
    - Version 3, H9 Hardness

- **Do the X86-based RTC products support TPM?**
    - Yes, the RTC-700B and RTC-900B support Version 1.2 and RTC-1200 version 2.0

- **What are the options to scan barcodes?**
  - Intensive use: Via the integrated dedicated 1D/2D Barcode Scanner
  - Occasional use: Via the rear camera and BCR SW (e.g. Scandit)

- **Can I interchange the RTC-700 modules myself?**
  - Yes, a FAE can easily interchange between the COM/ETH -and BCR module

- **Can I use the RTC products with gloves?**
  - For RTC-600/700/900: Thin working gloves do work, example http://www.ansell.com/en/Brands/Hyflex.aspx
  - For RTC-1200SK: This has a "glove/rain" mode via the F2 key for all kinds of gloves including ski gloves.

Case Studies & Application Examples

The Challenge

A Container Shipping company in the Netherlands exporting to African countries needed a small and rugged Android tablet in order to check containers for damages in the African harbor for primarily insurance purposes and tracking damages. They also needed Ethernet connectivity as wireless coverage was not stable enough in the working area.

The Solution

AAEON's RTC-600A with off-factory Ethernet on its' docking station and rugged housing and high operating temperature range was exactly what was needed.

Why AAEON?

• Leading supplier of Rugged Android tablets
• Light 5.7" rugged tablet, long battery life
• Ethernet port on docking station
• Industrial look-and –feel lowering theft-risk

AAEON Product Model

RTC-600A with docking station

Maintenance

The Challenge

One of the largest Energy/Asset Management Maintenance companies in France, needed a relatively **small but rugged tablet** with **COM –and Ethernet port** functionality to hook up to (legacy) electrical installations in order to read out and configure these.

The Solution

AAEON's RTC-700M with off-factory COM and Ethernet module fit the bill perfectly and is now standardized within the company.

Why AAEON?

• Leading supplier of Rugged Android tablets
• Light 7" rugged tablet, long battery life
• COM/Ethernet ports on relatively small tablet

AAEON Product Model

RTC-700M with COM/Ethernet module

Maintenance

The Challenge

An organisation offers a wide range of water services in Belgium including water analyzes, controls on individual wastewater treatment systems, management Septic tanks, curbs of roads and road sweeps, etc. They needed a large rugged tablet especially for their water inspection services with **sunlight readable display** and **accurate GNSS** for man-hole location and real-time data transfer.

The Solution

AAEON's RTC-1200SK with 1000 nits display and uBlox GNSS module

Why AAEON?

- Leading supplier of Rugged Android tablets
- Competitive 12" rugged tablet
- Very accurate GNSS
- 2 x Hot-swappable batteries

AAEON Product Model

RTC-1200SK with 1000nits display and 3G

Transportation

The Challenge
A Scandinavian IT company specializing in electronic ticketing and travel information for public transport needed to show real-time travelling info for a bus service company. **High precision/reception of GPS/Glonass signals** was needed as busses travelled to remote locations. These locations could also be in harsh temperature environments.

The Solution
The customer wanted a customized version of the RTC-700A providing an external GPS antenna, flying leads car adapter power supply and specific certification.

Why AAEON?
• Leading supplier of Rugged Android tablets
• Light 7" rugged tablet, long battery life
• Good GPS/GLONASS options
• Good customization services

AAEON Product Model
Customized version of the RTC-700A

Energy / Utility

The Challenge

No.1 Chinese Power company wanted to use a rugged tablet PC for onsite operators to do system maintenance. The unit had to be at least IP65, with drop specifications of 120cm. Furthermore, it should have an **integrated HF RFID reader** to recognize and record the examination results and communicate that data via Cloud computing solution using **3G**.

The Solution

Custom back cover to their fit their company ID and HF RFID integrated into the tablet.

Why AAEON?

• Leading supplier of Rugged Android tablets
• Light 7" rugged tablet, long battery life
• Good customization services

AAEON Product Model

Customized version of the RTC-700A

Military

The Challenge

A prime contractor of IT equipments for the U.S. government and defense needed the latest Android OS platform for a *light and portable 7" tablet PC* for the U.S. government and military.

The Solution

Technically, the AAEON RTC-700R/T was the right fit. The customer opted however to benefit from AAEON's customization services to create their own enclosure to match their look-and-feel. AAEON offered the latest Android v4.0 OS military grade tablets.

Why AAEON?

• Leading supplier of Android v4.0 tablets
• Lightest 7" rugged tablet, long battery life
• IP65 enclosure, 4-ft drop tested
• Provided various wireless options
• Good customization services

AAEON Product Model

Customized version of the RTC-700A

MPOS

The Challenge
A major vendor of POS systems needed a *sleek-designed 7" commercial tablet PC* to take orders, take payments and print receipts.

The Solution
The AAEON RTC-700 technology base was the right fit, but the customer wanted a fully customized version with their own enclosure, look and feel and extra functionalities.

Why AAEON?
• Leading supplier of rugged tablets
• Financially strong partner
• Longevity guaranteed
• Custom Design Service
• Solid 7" tablet platform

AAEON Product Model
Complete Custom version of the 7" tablet

Requirements

- **Barcode/RFID Reader for product identification**
- **Bluetooth communication for voice-picking**
- **Designed for harsh environments/temperatures**
- **Water resistant (e.g. rain, snow)**
- **High-res camera with flash to record possible freight damages**
- 810G Shock / Drop
- Anti-Scratch Touch Glass
- Real-time data transfer
- Wide input power supplies (10-24V) available to operate from forklift electrical supply
- Excellent wireless communications

Voice picking / scanning goods in warehouse

Deliver package; sign and scan for proof of delivery
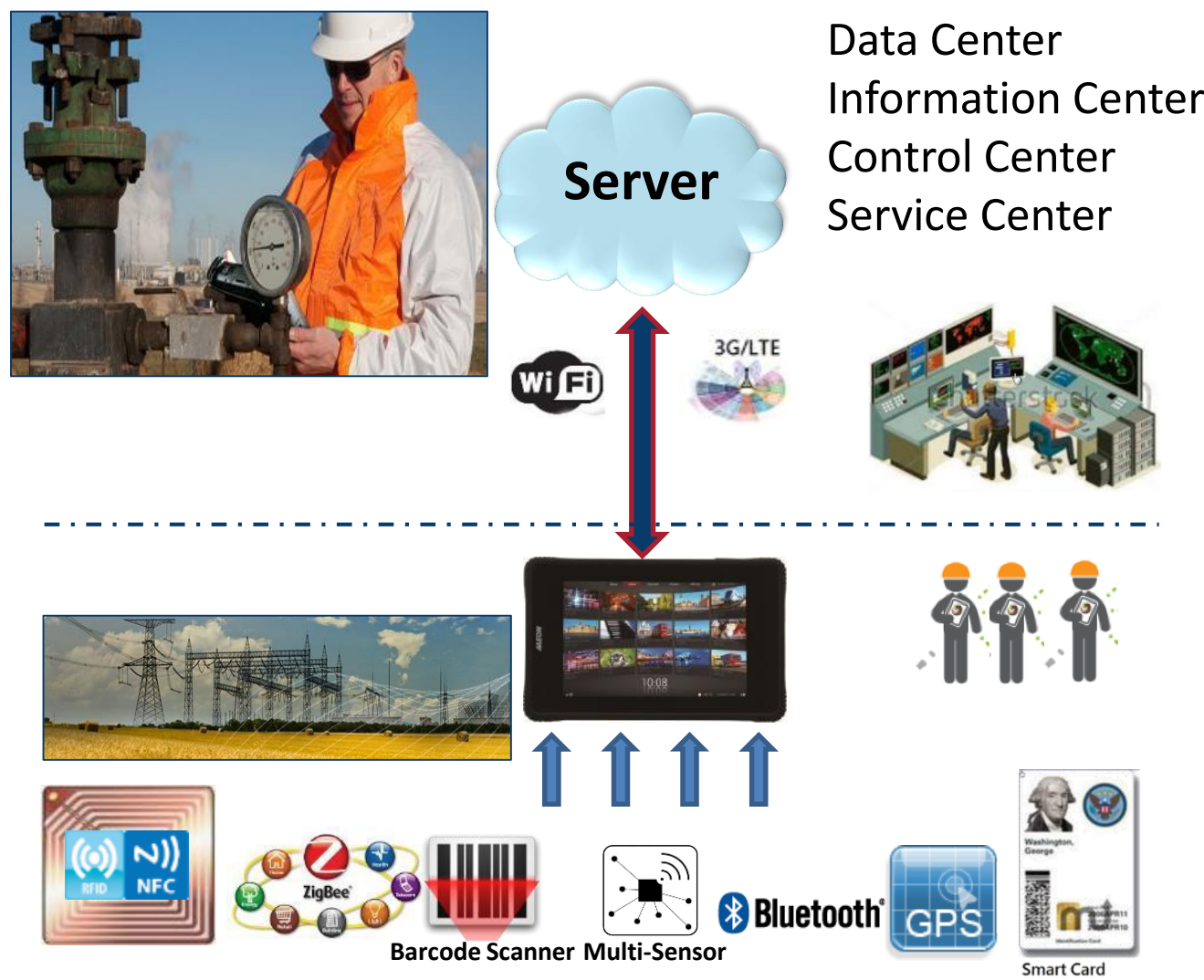
Using GPS for optimal route information

Requirements

- Designed for harsh environments/temperatures
- Vibration/Water resistant
- **Legacy COM-port and Ethernet port to use RTC as Mobile HMI**
- **Barcode/RFID/Card Reader for machine/personnel identification**
- Real-time data transfer
- Excellent wireless communications
- Anti-Scratch Touch Glass

Server

Data Center
Information Center
Control Center
Service Center

Wi-Fi   3G/LTE

Barcode Scanner Multi-Sensor

Bluetooth   GPS

Smart Card

Requirements

• Designed for harsh environments/temperatures

• **Vibration resistant (e.g. bad roads)**

• **Ethernet/COM port to connect to In-Vehicle PC**

• **Barcode/RFID Reader for (e)Ticket Verification**

• Real-time data transfer

• Excellent wireless communications

• Optional external GNSS antenna for remote locations
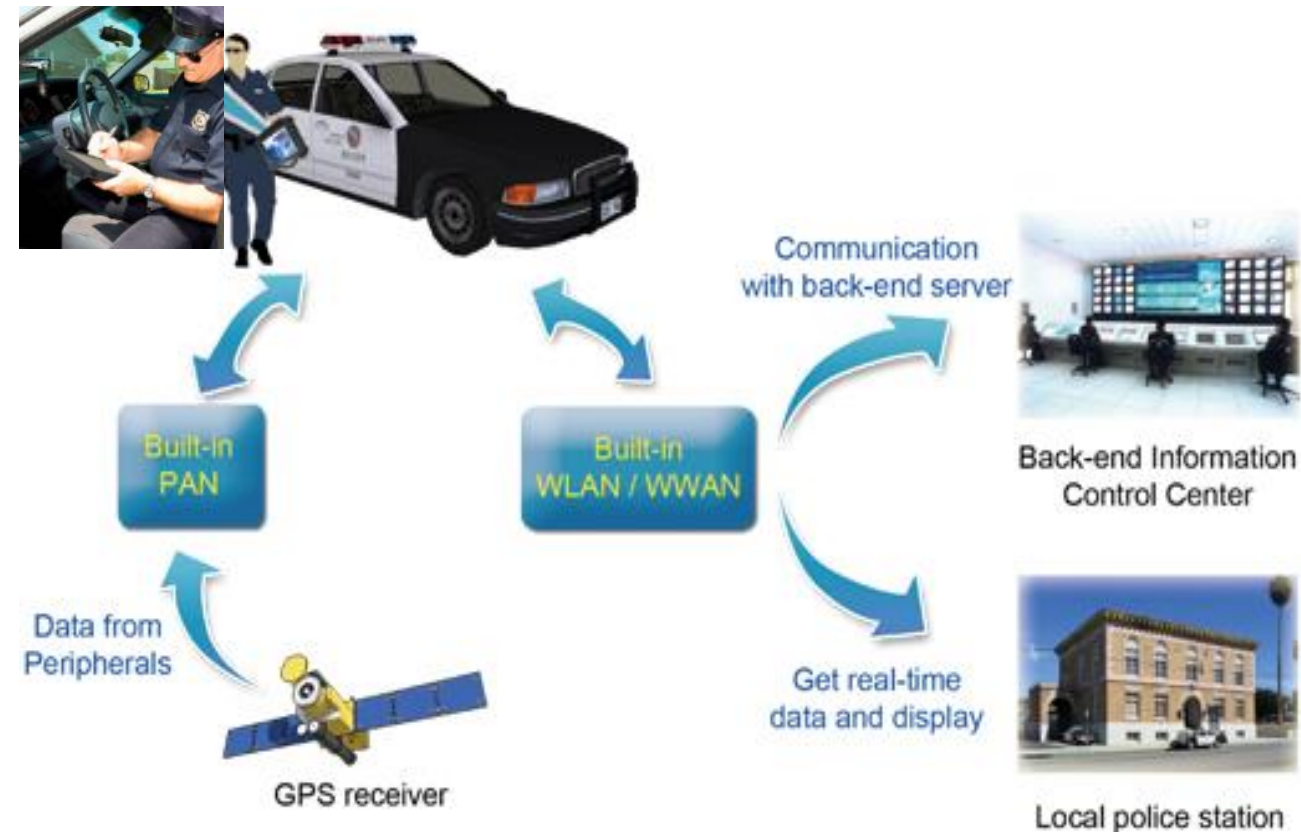
• Anti-Scratch Touch Glass
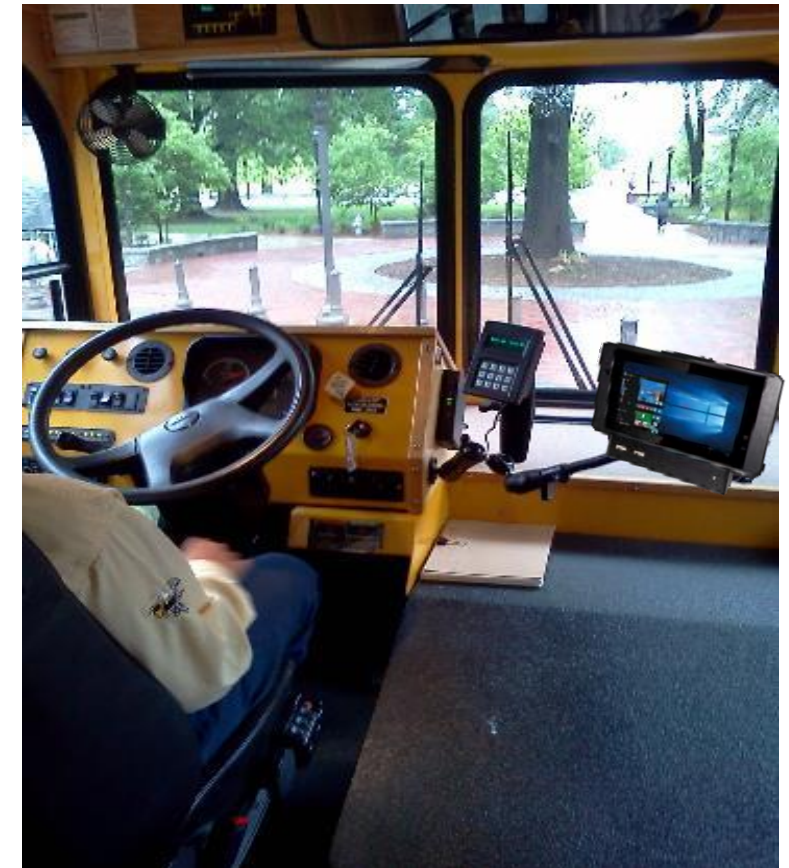
Requirements

- **High-res camera with flash for "first on the scene" accident / crime-scene pictures**

- **NFC/Smart/Swipe Car Reader for personnel identification**

- **Bluetooth communication for Ticket printing**

- Designed for harsh environments/temperatures

- Vibration/Water resistant

- Real-time data transfer

- 810G Shock / drop resistant

- Excellent wireless communications

- Completely versatile vehicle based computer system

Thank You