

RUGGED MOBILE SOLUTIONS

2022
PRODUCT CATALOG



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System Level Products

AAEON is committed to delivering high-quality intelligent system products, such as Rugged Panel PCs, Expandable Industrial Computers, Full HD Infotainment Displays, Rugged Tablets, Embedded PCs and related accessories, for use in all aspects of sectors including Digital Signage, Transportation, Industrial Automation, Healthcare, Hospitality, Harbor/Marine, Military/Government, Public Safety and Energy.

AAEON has the capability to customize services for a range of embedded computers and system products according to customer requirements and specifications. To help large customers with volume production, AAEON also provides an end-to-end Design Manufacturing Service (DMS) that begins with design and goes through to contract manufacturing. Quality assurance of our system products ensures excellent product performance and is the key to our success and growing global customer base.

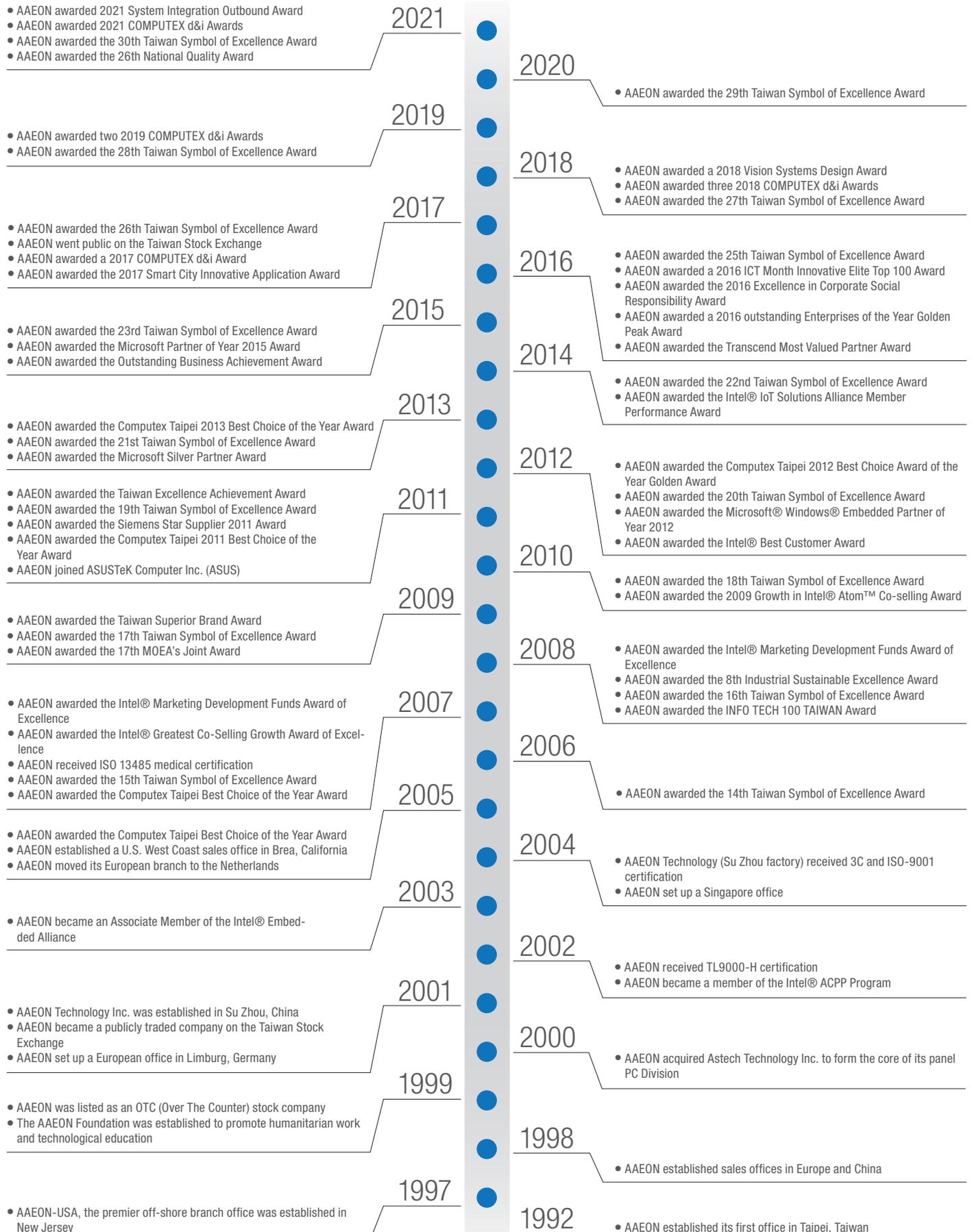
Board Level Products

Embedded boards are the beating heart of every computer system. AAEON offers a diverse range of different embedded boards to consolidate your systems. Our products include Compact Boards, 3.5" Sub-Compact Boards, EPIC boards, PICO-ITX boards, COM Express Modules, PC/104 Modules, PC/104 Peripheral Modules, IoT Node/Gateway Boards, and full-sized & half-sized SBCs.

With the advent of the fourth industrial revolution, more commonly known as Industry 4.0, the optimization of automation processes and productivity is becoming more relevant than ever before. Embedded single boards provide an easily configurable and efficient solution to consolidating industrial platforms and infrastructure in fields such as smart cities, smart building management, smart transportation, energy-efficient grids, POS and digital signage, and the medical industry.

AAEON's boards are designed for superior environmental resilience. The WITAS (Wide Temperature Assurance Services) line can be used within a temperature range of -40°C ~ 85°C and is specifically built to combat harsh environments, operating at peak efficiency in both bitterly cold and blisteringly hot spaces. Our WITAS products are also ideal for IoT uses and are designed for minimum maintenance and maximum ruggedness.

Milestones



A member of the ASUS Group: A strong high-tech conglomerate

ASUS Technology and Financing

AAEON Design Flexibility and Domain Know-how



OEM/ODM Capability

The OEM/ODM service has been a key factor in AAEON's phenomenal growth over the past 10 years. AAEON offers design services for full custom requirements as well as modification services for its off-the-shelf products. Whatever you need, AAEON has the experience and expertise to help you create or modify products to perfectly fit your requirements.

Core Competence

Product Innovation

AAEON's integration expertise is integral to product designs that have the most desirable built-in features, saving customers valuable design and customization time. AAEON's OEM/ODM capabilities help us meet customers' exact specifications and requirements. In addition, AAEON has invested aggressively in R&D capabilities and will continue to do so to maintain a competitive advantage for new designs. In cooperation with premier technology vendors, AAEON participates in vendor early access programs to provide the latest technology to its customers.

Market Focus

AAEON has established a worldwide reputation for exceptional domain know-how. This expertise has enabled AAEON to secure a solid position in Machine and Factory Automation, as well as the Chemical Industry. Additionally, AAEON's cutting edge products meet the specific requirements of the Digital Signage, Transportation, Industrial Automation, Medical, Harbor/Marine, Military/Government, Public Safety and Energy sectors.

R&D Strength

AAEON takes great pride in its World Class R&D aptitudes. With more than 20% of AAEON's workforce employed in R&D and 10% of annual sales revenue invested in this field, AAEON is prepared to handle the most demanding designs based on the latest technologies. With our strong background in innovation, AAEON has been granted a raft of design patents around the world.

Design Capability

From our core competence of single board computer design, AAEON has expanded its capabilities to award-winning Panel PC System Design, BIOS Engineering with multi-vendor expertise, Mechanical Design, Peripheral Device Design, Design Verification and in-house EMI/EMC Debugging.

Manufacturing Capability

AAEON has manufacturing facilities located in Taipei, Taiwan and Suzhou, China. To become the leading supplier of Industrial Computers, AAEON has created manufacturing facilities with flexible layouts and expansion capabilities to easily address the demand for increased production capacity. Drawing upon the skills of its professional and experienced personnel to develop an efficient production system, AAEON has the ability to respond rapidly to customer requests for standard or customized IPC products.



AAEON's Quality Assurance Closed Loop Feedback System provides solid and consistent feedback through the design, manufacturing and service stages to ensure continuous progress and meet customer expectations. The three stages of the Quality Assurance System are Design Quality Assurance (DQA), Manufacturing Quality Assurance (MQA) and Service Quality Assurance (SQA).

DQA

Design Quality Assurance starts at the conceptual stage of a project and covers the product development stage to ensure the utmost quality throughout the process. AAEON's safety and environmental test labs ensure our products meet the requirements of CE/UL/FCC/CCC standards. All AAEON products go through an extensive and comprehensive test plan for compatibility, function, performance and usability. Therefore, AAEON customers can always expect to receive well-designed, high-quality products.

MQA

Manufacturing Quality Assurance is carried out in accordance with ISO 9001, ISO 13485, ISO 14001 certification standards. All AAEON products are built using production and quality testing equipment in a static-free environment. Additionally, these products go through rigorous tests on the production line and dynamic aging in the burn-in room. AAEON's Total Quality Control (TQC) program includes Incoming Quality Control (IQC), In-Process Quality Control (IPQC) and Final Quality Control (FQC). Periodic training, auditing and facility calibration are strictly implemented to ensure all quality standards are followed to meet customers' requirements. The Quality Control Team constantly communicates with R&D to improve product performance and compatibility.

SQA

Service Quality Assurance includes technical support and a repair service. With SQA, AAEON can serve its customers and also receive their feedback and work with R&D and Manufacturing to strengthen AAEON's response time in resolving customer concerns and improve service levels.

Technical Support

The backbone of customer support is a team of professional Application Engineers who provide customers with real-time technical support. Their expertise is shared through internal knowledge management and links to the website for online nonstop service and solutions.

Repair Service

With an efficient eRMA system and RMA service policy, AAEON's RMA Team is able to ensure prompt, high-quality product repair and replacement services with a short turnaround time.

Quality Certification



AAEON has acquired many official certifications to maintain its quality system.

ISO 9001: QMS Standards, 2015

ISO 13485: QMS Standards, 2016

ISO 14001: EMS Standards, 2015

ISO 27001: ISMS, 2013

3C: China Compulsory Certification

CE/FCC: All AAEON products undergo and meet CE and FCC test standards which prove their design quality and integrity

Mobile Computing Solutions



Introduction

Computing in the environment of Industry 4.0 means taking full advantage of innovative technologies and frameworks such as IoT, decentralizing of data processing, and utilizing wireless communication to overcome the limitations of physical infrastructure. As more things depend on technology, it is more important that we can carry that technology with us through the power of mobile computing.

AAEON Rugged Mobile Computing Solutions are designed to provide flexible and tough platforms built to handle working in environments which are harsh or abusive for consumer grade products. These rugged tablet PCs and semi-rugged tablet PCs provide reliable operation whether indoors or outside, in cold freezers or hot weather, onboard buses and controlling entryways. AAEON's Rugged Mobile Computing Solutions are built for work, in the field, in the office, or wherever is demanded.

Time Clock



Hospitality



Parking Management



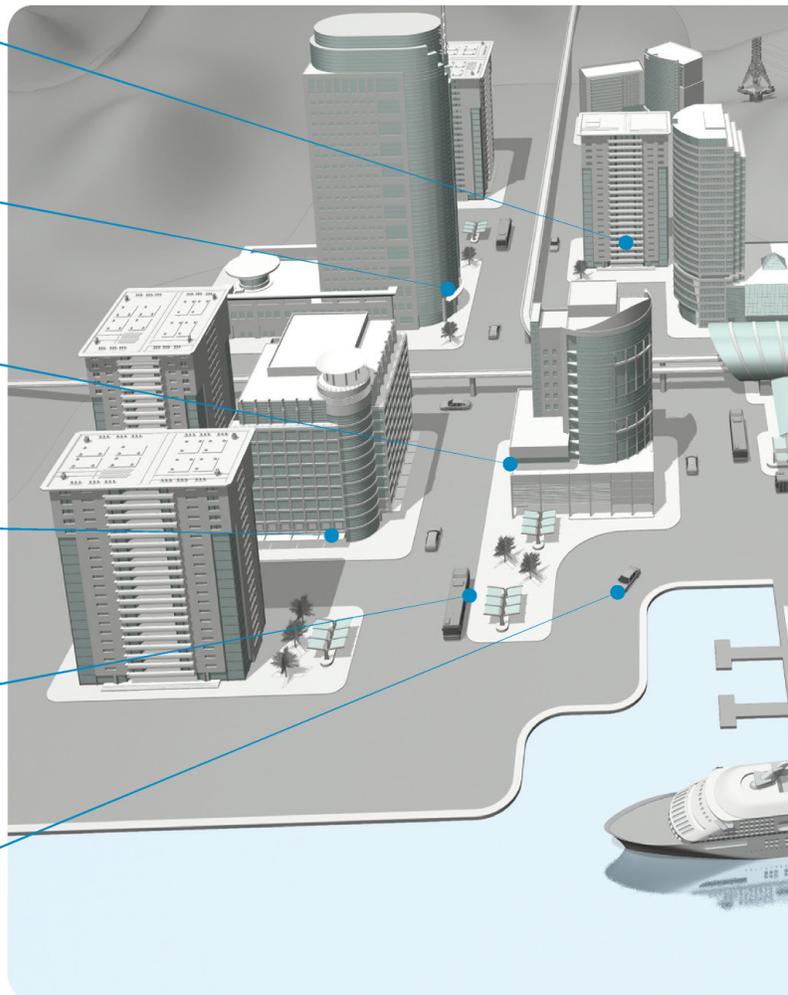
Access Control



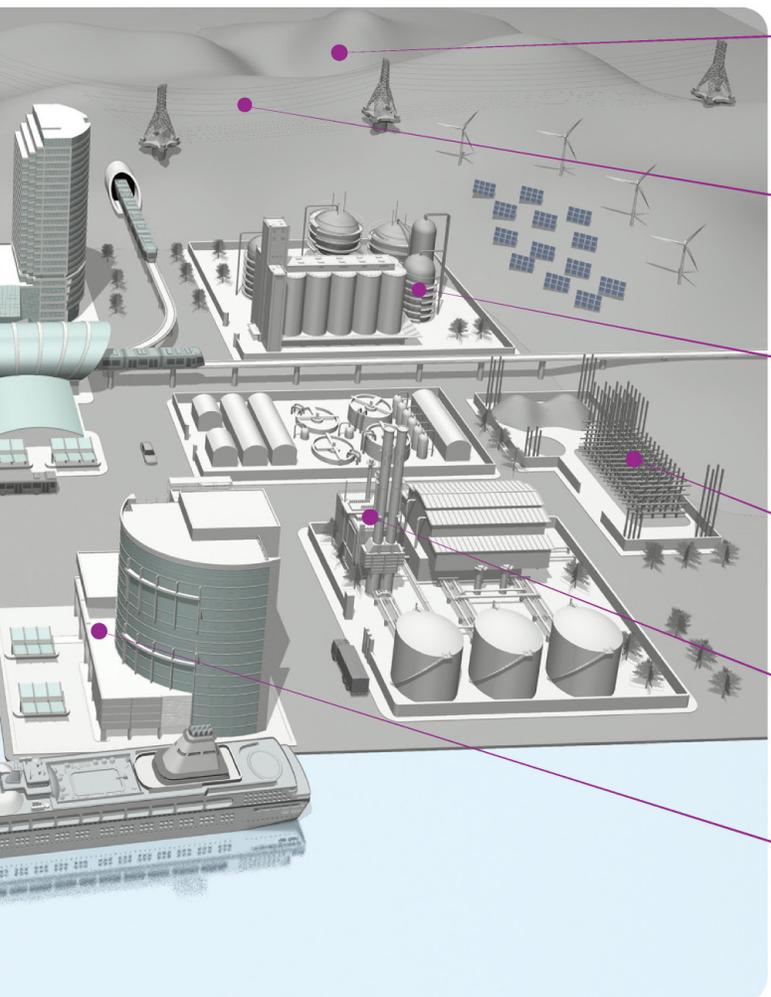
e-Ticketing



Fleet Management



Mobile Computing Solutions



Aerial Photography



Heavy Machinery



Factory Automation



Construction



Field Inspection



Logistic/Warehouse Management



Rugged Tablet Computers

Introduction

AAEON's new line of Rugged Tablet Computers (RTC) are MIL-STD-810G compliant and meet IP65 ratings. The RTC Series is built from the ground up to withstand water, dust, vibrations and shocks, as well as the extreme temperatures found in a variety of harsh conditions. The RTC product line will go wherever the job takes you. Encased in a tough magnesium alloy, the RTC Series offers secure and reliable mobile computing, whether it is vehicle mounted or hand carried into the field.

The rugged mobile computing market continues to grow as we find new ways to improve performance and productivity by enabling connectivity in the workforce. The RTC series offers up-to-the-minute information and in-field data acquisition, which makes mobile computing not just a valuable asset, but a critical requirement. Powered by low-power processors, such as Intel® and Rockchip, the RTC line delivers high performance with low power consumption. AAEON rugged tablet batteries can meet the demands of a full day's work in the field. Docking station options and vehicle chargers will keep the system up and running for multiple shift operations. These ergonomic and conveniently sized tablets are lightweight and will go with you anywhere to tackle the job on hand.

The PCAP touch screen and Advanced Optibond Technology (AOT™) allows easy and accurate data input. The programmable function keys are all standard features that make AAEON's RTC product line your best choice for mobile computing.

Featured Products



RTC-710RK

Android-based 7" Rugged Tablet Computer

- 7" WXGA (1280 x 800) 700-nit / 300-nit TFT LCD
- Rockchip RK3399K Processor
- Onboard LPDDR4 Memory, 2GB (Default) / 4GB
- eMMC 16GB (Default) / 32GB / 64GB
- Projected Capacitive Multi-Touch Screen
- WiFi 802.11b/g/n, Bluetooth 4.2, LTE (Optional)
- 8MP Front and 8MP Rear Camera
- UART Port + 10/100/1000 Base-T RJ45 via I/O Module (Optional)
- USB 3.2 Gen 1 Type-C x 1, USB 2.0 Type-A x 1
- 2D Barcode Scanner via I/O Module (Optional)
- NFC (HF RFID) Reader (Optional)
- GPS + GLONASS (Default), BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F1, F2, F3, Volume Up/Down, With LED Illumination
- Android 8.1



RTC-710AP

Windows-based 7" Rugged Tablet Computer

- 7" WXGA (1280 x 800) 700-nit / 300-nit TFT LCD
- Intel® Celeron™ N3350 1.1GHz Dual Core Up to 2.4GHz (N4200 Optional)
- Onboard LPDDR4 Memory, 4GB (Default) / 8GB
- eMMC 64GB (Default) / 128GB
- Projected Capacitive Multi-Touch Screen
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 8MP Rear Camera
- RS-232 COM Port + 10/100/1000 Base-T RJ45 via I/O Module (Optional)
- USB 3.2 Gen 1 Type-C x 1, USB 2.0 Type-A x 1
- 2D Barcode Scanner via I/O Module (Optional)
- NFC (HF RFID) Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IoT

Rugged Tablet Computers



RTC-1010

10.1" Rugged Tablet Computer

- 10.1" WXGA (1280 x 800) 800-nit / 300-nit TFT LCD
- Intel® Celeron™ N3350 1.1GHz Dual Core Up to 2.4GHz (N4200 Optional)
- Onboard DDR3L Memory, 4GB (Default) / 8GB
- eMMC 64GB (Up to 256GB, Optional)
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 8MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner & Smart Card Reader / HF RFID (NFC) Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F0, F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IOT



RTC-1010M

10.1" Semi-rugged Tablet Computer

- 10.1" WXGA (1280 x 800) 300-nit TFT LCD (Default)
- Intel® Celeron™ N3350 1.1GHz Dual Core Up to 2.4GHz (N4200 Optional)
- Onboard DDR3L Memory, 4GB (Default) / 8GB
- eMMC 64GB (Up to 256GB, Optional)
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 8MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45 (Optional)
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner & Smart Card Reader (Optional)
- HF RFID (NFC) / MSR Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- IP54 Compliant, Drop 76cm
- Programmable Function Key: F0, F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IOT



RTC-1200

11.6" Rugged Tablet Computer

- 11.6" FHD (1920 x 1080) 500-nit / 850-nit TFT LCD
- Intel® Core™ i 7100U / 7300U / Celeron® 3965U Up to 3.9 GHz
- One DDR4 SODIMM Socket, Up to 16GB
- One M.2 Slot for SSD, 64GB (Default) / 128GB / 256GB
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 5MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner / HF RFID (NFC) Reader (Optional)
- Hot-swappable Battery, 14.4V/ 2270mAh, 32.7W x 2
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: Windows, Volume Up/Down, P1, P2, P3, With LED Illumination
- Docking Connector with GNSS / WWAN Antenna Pass-through Connector
- Windows® 10 IOT



RTC-1020

10.1" Rugged Tablet Computer

- 10.1" FHD (1920 x 1200) 450-nit / 850-nit TFT LCD
- Intel® Core™ i Tiger Lake UP3 Processor
- Onboard LPDDR4X, 8GB (Default) / 16GB
- M.2 SSD, 64GB (Default) / 128GB / 256GB
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 5MP Front and 8MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner (Optional)
- HF RFID (NFC) Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- Hot-swappable Battery, 14.4V/ 2270mAh, 32.7W x 2 (51.1W x 2, Optional)
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F0, F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IOT (Default), Ubuntu

Accessories

RTC-1010 & RTC-1010M

RDS-411 (Rugged Docking Station)

- Apply on RTC-1010/ RTC-1010M
- Front-facing I/Os: USB 2.0 x 2 with Protection Cover
- Downward-facing I/Os for Easy Cable Management: USB 2.0 x 2, RS-232 x 1 (Two: Optional), RJ45 GbE x 1, DC-in Phoenix Connector x 1
- Wide Voltage Input: 9VDC ~ 36VDC
- Power Adaptor: AC Power Adaptor (Default)
- Anti-theft Lock with Key & VESA Mount



RTC-1010-HS-000

- Hand Strap for RTC-1010/ RTC-1010M



RTC-1010-SB-000

- Shoulder Belt for RTC-1010/ RTC-1010M



1255900363

- DC-To-DC Power Adapter, Flying Wires for RTC-1010/ RTC-1010M



1255900364

- DC-To-DC Power Adapter, Cigarette Plug for RTC-1010/ RTC-1010M



RTC-1010-VMP-000

- VESA Mount Plate for RTC-1010/ RTC-1010M



RBC-1200-000

- 4-bay Battery Charger for RTC-1010/ RTC-1010M, RTC-1200



RTC-1200BAT01-000

- Battery Pack for RTC-1010/ RTC-1010M, RTC-1200



* Li-on battery shipping is regulated by IATA DGR, special method and extra fee applies.

RTC-1200

RDS-241V (Rugged Docking Station)

- Anti-theft Lock with Key & VESA mount
- Downward-facing I/Os for Easy Cable Management
- Ext. GPS and WWAN with SMA Connector
- Front-facing I/O: USB x 2 in landscape Side
- Downward-facing I/Os: USB 3.2 Gen 1 Dual Port x 1 + RS-232 x 2, One with 5V in Pin9 & the Other with GPIO x 8, GbE x 1, M12 DC-in x 1
- Wide Voltage Range: 9V DC ~ 36V DC in M12-5P Female Connector
- Adaptor is Additionally: (Car Adaptor with Cigarette Plug or Std Adaptor for YC-14)



RTC-1200HSP01-000

- Hand Strap for RTC-1200



RTC-1200BLT01-000

- Shoulder Belt for RTC-1200



RTC-1200BLT02-000

- Shoulder Belt for RTC-1200



RTC-1200BKT01-000

- VESA Mount Bracket for RTC-1200



RTC-1200SPC01-000

- 2-in-1 Protective Case for RTC-1200



RBC-1200-000

- 4-bay Battery Charger for RTC-1010/ RTC-1010M, RTC-1200



RTC-1200BAT01-000

- Battery Pack for RTC-1010/ RTC-1010M, RTC-1200



* Li-on battery shipping is regulated by IATA DGR, special method and extra fee applies.

Customized Services

- Longevity Support
- ODM Services
- Small Minimum Order Quantity

Fully-Rugged Design



Water Resistant

- IEC 60529
- IPx5 standard



Drop Test

- MIL-STD-810G Method 516.6 Procedure IV



Dust Proof

- IEC 60529
- IP6x standard



Vibration Test

- MIL-STD-810G 514.6 Procedure I Cat. 24, Fig. 514.6E-1 & 514.6E-2
- ASTM 4169-99 Truck Assurance Level II, Schedule E



Temperature Test

- MIL-STD-810G Method 501.5 Procedure I & II, Method 502.5 Procedure I & II, Method 503.5 Procedure I, Method 507.5 Procedure II

Outdoor Application



Sunlight Readable LCD

- Readable under sunlight
- Higher brightness solution
- AOT optical bonding



Ambient Light Sensor

- Power savings in dark environments
- Detects light and brightness



AOT™ (Advanced Optibond Technology)

- The best reflection reduction among any commercially available technology
- Reinforces the LCD display, making it much more rugged



Long Battery Life

- Hot-swappable batteries design

Built-in Versatile Sensors



GPS

- Stand-alone GPS Navigation module



G Sensor

- Gravity sensor



E-Compass

- Electronic compass



Gyro Sensor

- Electronic gyroscopes

Wireless Communication



4G

- LTE



Bluetooth®

- 2.1/3.0/4.1/4.2/5.0



WiFi

- a/b/g/n/ac



NFC

- 13.56MHz Near Field Communication



RFID

- 13.56MHz Radio Frequency Identification



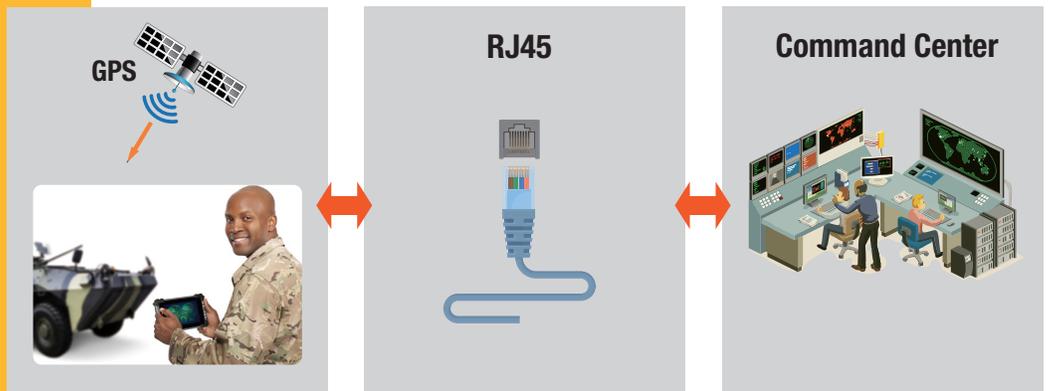
Requirements

- IP65-rated
- MIL-STD-810G-compliant
- Sunlight readable screens
- Wireless communication
- Long battery life
- Lightweight

Military

From combat readiness to logistical management, the need for rugged mobile computing to support military operations is clear. On and off the battlefield, soldiers need to not only communicate quickly and effectively, but those who support the front line need to ensure critical supplies get to where they're needed most.

AAEON offers MIL-STD-810G compliant and IP65 rated platforms, such as the RTC-1010 and RTC-710RK, which are designed to endure rough handling and harsh conditions that come with maintaining the supply lines for a modern force. Sunlight readable screens which can be adapted for use with gloves, allow for these rugged tablets to operate indoors and out, wherever military equipment and hardware needs to be moved. Effective and reliable communication is also provided through support for Wi-Fi, 4G/LTE and Bluetooth as well as various GPS protocols.





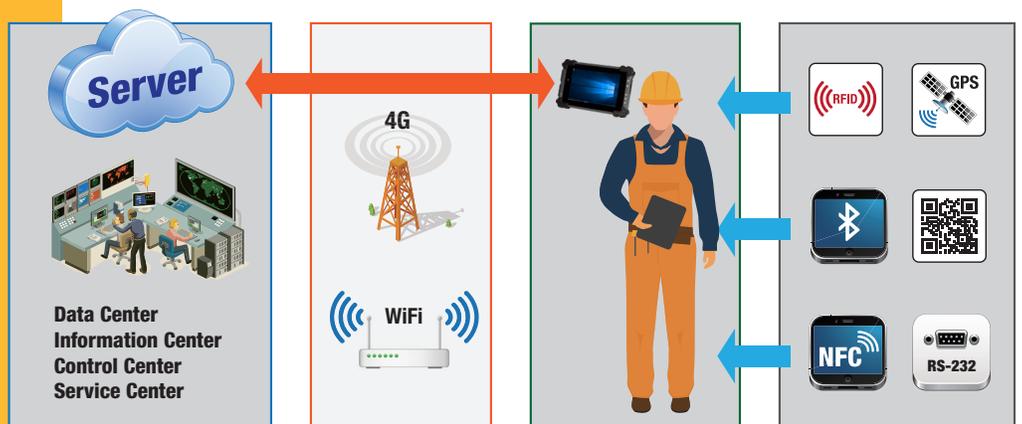
Requirements

- Sunlight readable screens
- Vibration & water resistant
- Wireless communication
- Long battery life

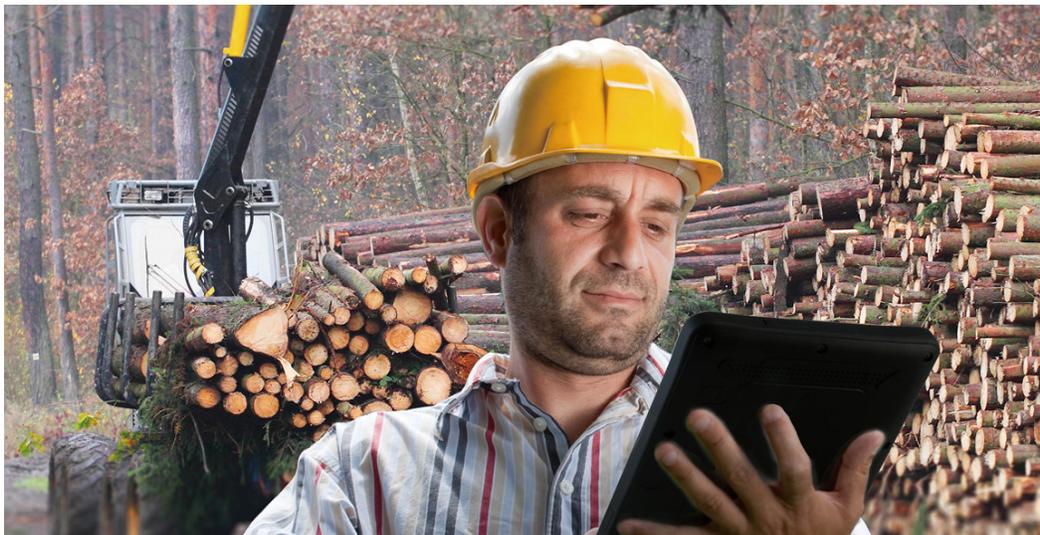
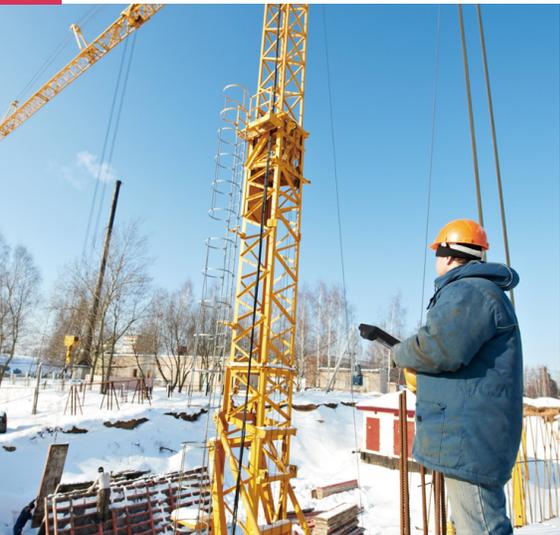
Field Service

One application which has benefited greatly thanks to the deployment of rugged mobile computing is field service and inspection. A job which is almost exclusively conducted outdoors or at unfinished sites, having a rugged tablet able to hold up to the rigors of field work is essential. The RTC-710AP and RTC-1010 rugged tablets are perfectly suited for the task, with wide operating temperature ranges and IP65 rated sealing to keep out dust, sand, water and other particulates commonly encountered during on-site work in the field.

Built in 8MP rear and 2MP front cameras provide added benefit for field inspectors to take on-site photos, and I/O connections allow the rugged tablets to connect to field equipment as needed. Wireless communications support with Wi-Fi and 4G/LTE allows for instant communication either through teleconferencing, submitting reports, or quickly uploading photos and documents to the cloud. On-board support for GPS navigation also means it's hard to get lost with AAEON rugged tablets.



Applications



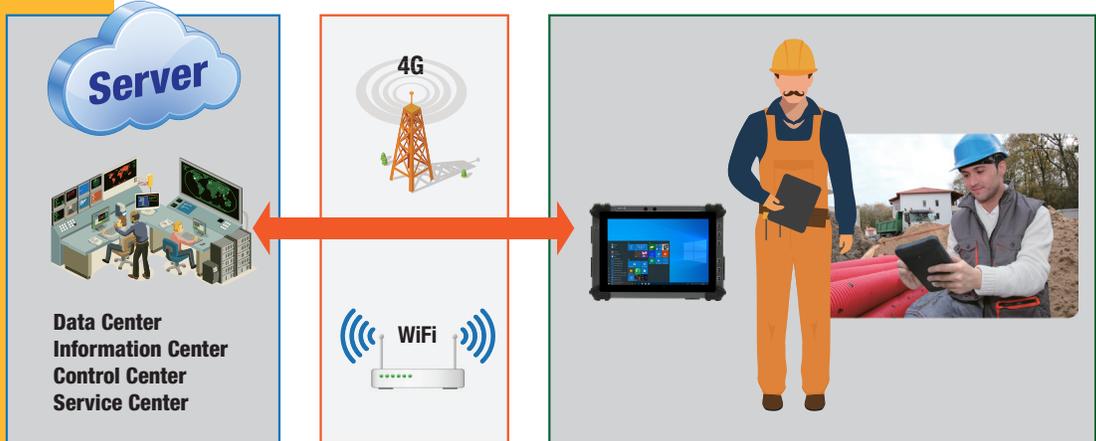
Requirements

- Sunlight readable screens
- Vibration & water resistant
- Wireless communication
- Long battery life
- Mechanical control

Heavy Machinery

Rugged mobile computing is helping to connect heavy machinery with the latest modern applications. Whether it's controlling equipment directly and providing human-machine interface, or acting as a monitor to track and report diagnostics and conditions, AAEON rugged tablets such as the RTC-1010 and RTC-710AP provide a vital tool in operating and maintaining heavy machinery.

Built for operating in any condition, whether indoors or out, AAEON rugged tablets feature touchscreens in a range of sizes from 7" to 11.6" with sunlight readable screens, configurable for use while wearing gloves as well as physical buttons for easier operation. Wireless support includes Wi-Fi, 4G/LTE, Bluetooth and GPS navigation to stay connected with networks, as well as a suite of I/O ports to allow the rugged tablets to connect directly to machinery when needed.





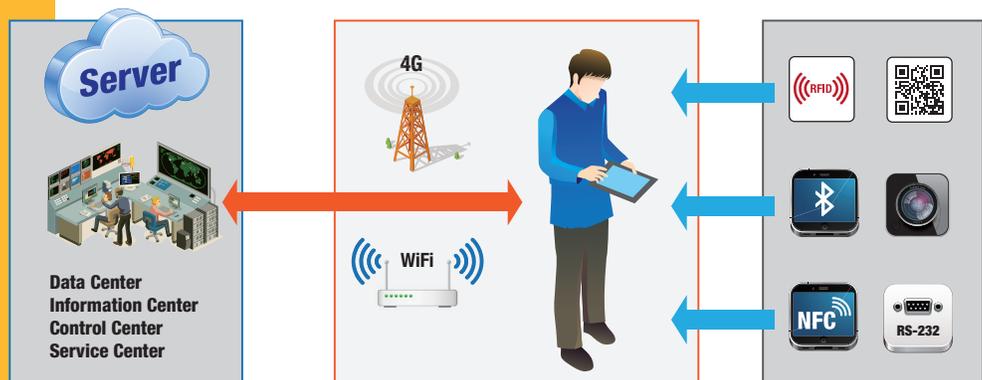
Requirements

- Sunlight readable screens
- Vibration & water resistant
- Wireless communication
- Long battery life
- Lightweight
- Mechanical control

Warehousing

No where has rugged mobile computing benefited users the most than in warehouses. From keeping track of stock, checking items in or out for shipment, or even managing orders on the go, rugged tablets provide warehouse workers and managers with a powerful tool that's always at their side. Whether it's the RTC-710RK or RTC-1010, AAEON rugged tablets are MIL-STD-810G compliant shock tested to provide a platform that can handle the bumps and drops that come with working in a warehouse.

AAEON rugged tablet PCs offer a range of accessories and support that are perfect for handling the toughest warehouse tasks. Hot swappable batteries ensure the tablets keep working all shift long, while optional add-ons such as barcode scanners helps fulfil the needs of logistical planning. Wireless communication with Wi-Fi and 4G/LTE support ensures the device is always connected to the warehouse database, and even provides a way to manage and control warehouse robots.





Introduction

AAEON RISC boards offer a compact embedded solution with low profile design, open-source operating system, and low power usage. AAEON RISC boards are powered by the Rockchip RK3288 and RK3399 chipsets, utilizing the latest Arm Cortex multi-core processor technology. Built to the PICO-ITX form factor, AAEON RISC boards are designed compact and with I/O features to make it easy to integrate into any project or application.

Featured Products



RICO-3288

Pico-ITX Fanless Board with Rockchip ARM Cortex™-A17 Quad-core Processor

- Rockchip RK3288
- Onboard DDR3L 2GB/4GB (Optional)
- Onboard eMMC 16GB and Micro-SD Card Slot
- HDMI (1.4), eDP, LVDS, MIPI
- WiFi 802.11 a/b/g/n/ac, BT V4.2, GPS (Optional), NFC (Optional)
- GbE: RJ45 x 1
- USB 2.0: Micro-USB OTG x 1, Type A x 2, Pin Header x 1
- RS-232/422/485 x 1, RS-232 x 1
- 8-bit GPIO, I2C, mPCIe Slot x 1
- +12V DC Input
- OS Support: Android 9.0 / Debian
- Small Board Size: 100mm x 72mm (PICO-ITX)



RICO-3288MINI

Pico-ITX Fanless Board with Rockchip ARM Cortex™-A17 Quad-core Processor

- Rockchip RK3288
- Onboard DDR3L 2GB
- Onboard eMMC 16GB
- HDMI (1.4): Up to 4K x 2K @ 60Hz
- GbE: RJ45 x 1
- USB 2.0: Micro-USB OTG x 1, Type A x 2
- 8-bit GPIO
- +12V DC Input
- OS Support: Android 9.0 / Debian
- Small Board Size: 100mm x 72mm (PICO-ITX)

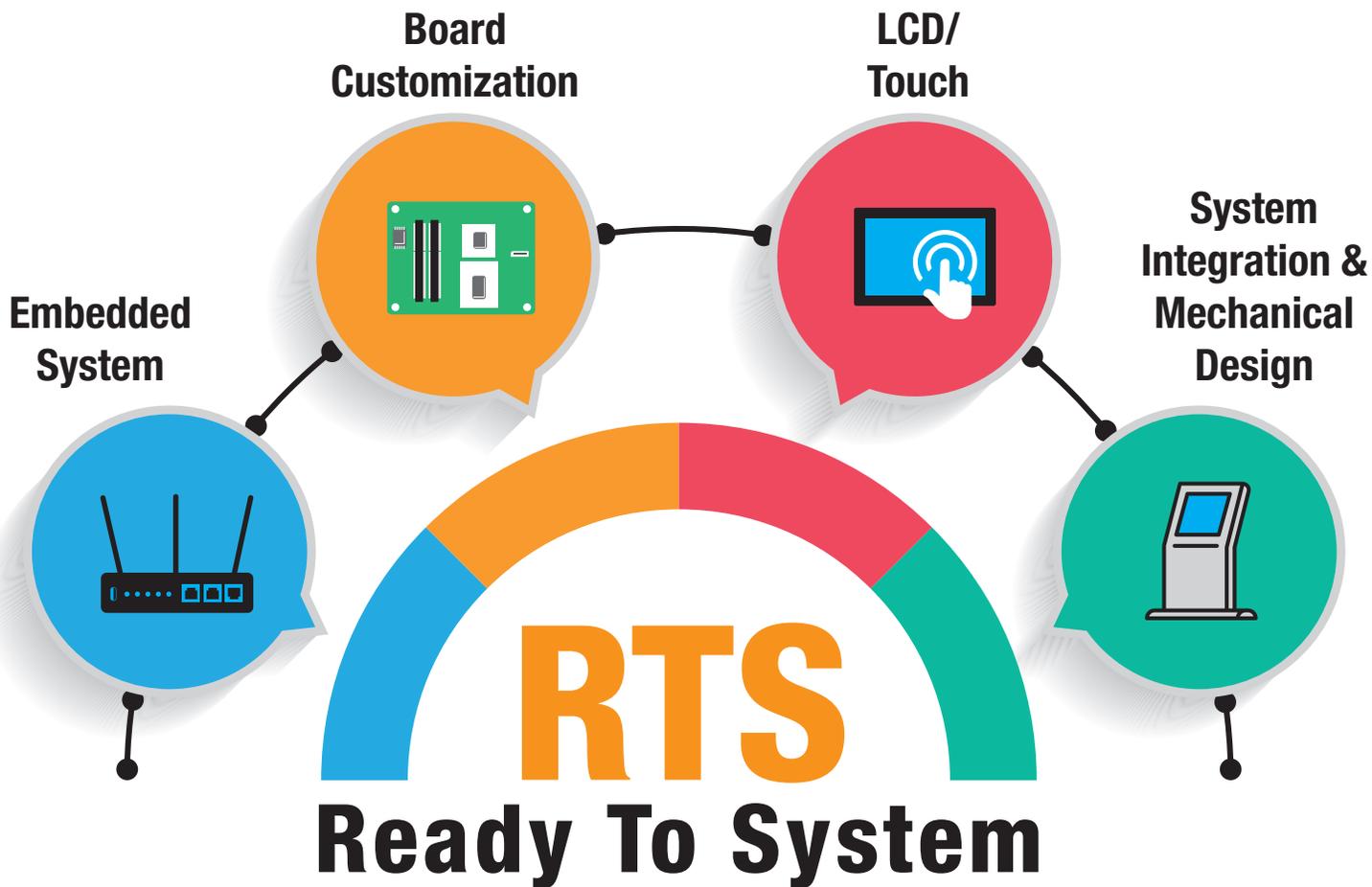


RICO-3399

Pico-ITX Fanless Board with Rockchip ARM Cortex-A72 Dual-core and Cortex-A53 Quad-core Processor

- Rockchip RK3399
- Onboard LPDDR3 2GB/4GB (Optional)
- Onboard eMMC 16GB and Micro-SD Card Slot
- HDMI (2.0), eDP
- WiFi 802.11 a/b/g/n/ac, BT V4.2, GPS (Optional), NFC (Optional)
- GbE: RJ45 x 1
- USB 3.2 Gen 1: OTG x 1, Type A x 1
- USB 2.0: Type A x 1, Pin Header x 1
- RS-232/422/485 x 1, RS-232 x 1
- 8-bit GPIO, I2C, mPCIe Slot x 1
- +12V DC Input
- OS Support: Android 8.1 / Debian
- Small Board Size: 100mm x 72mm (PICO-ITX)

AAEON RICO-3288/RICO-3399 RISC Ready to System (RTS) Solutions



Introduction

AAEON's RISC Ready to System (RTS) Solutions combine our knowledge and expertise in RISC architecture, OEM/ODM services and system design to offer developers and systems integrators a more complete package solution to help get their applications off the ground quickly. RTS solutions are based around the flexible RICO-3288 and RICO-3399 PICO-ITX RISC boards powered by Rockchip processors.

Customers can choose to add on components such as LCD with touch screens, 4G/LTE support, cables and connectors. RTS solutions also offer full end-to-end service with board layout customization and mechanical design to mount the board into an enclosure or designing the entire system from the ground up. AAEON RTS Solutions come with industry leading support, working closely to provide services such as customizing Android OS image, testing and validating customer software, and more to help accelerate development and reduce time to market.



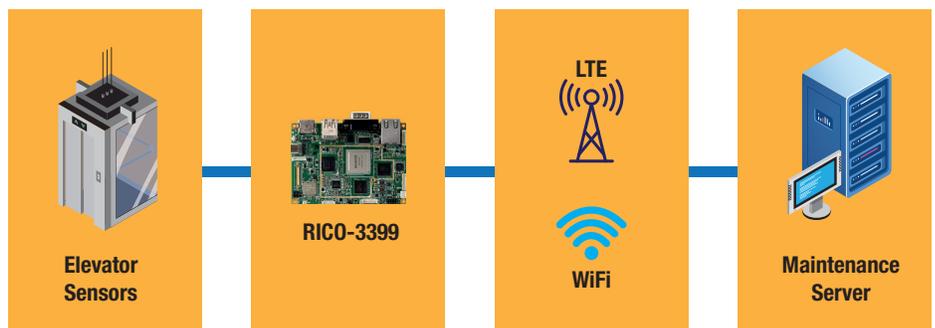
Requirements

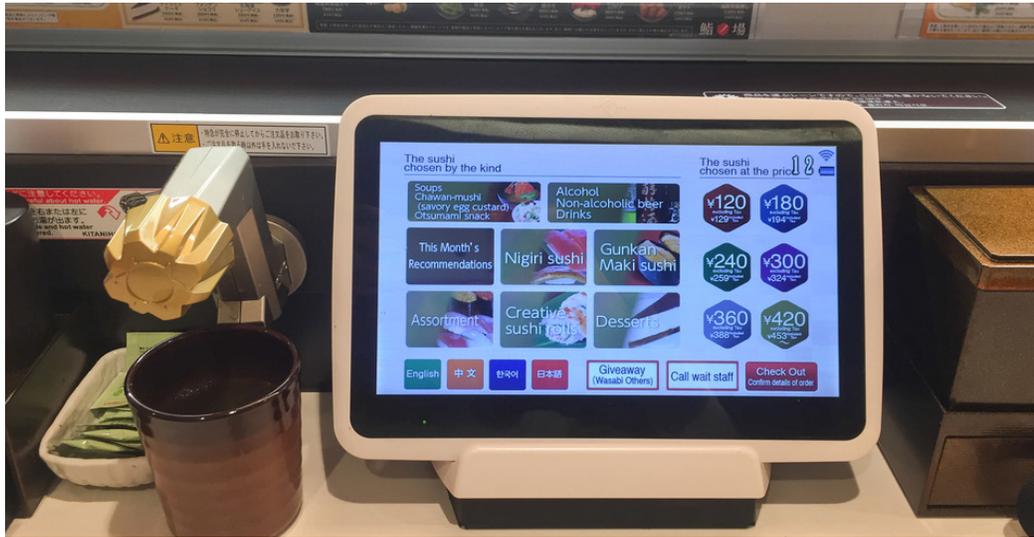
- Low Power
- Energy Efficient
- Reliable Operation
- Wide-Temperature
- Custom Android Image

Elevator Maintenance Monitor RICO-3399

An elevator company recently decided to modernize the fleet of elevators they help maintain for their customers. One way they did this was to make maintenance more efficient and to address problems as they arise, before they can cause trouble. The company selected the RICO-3399 for the job, with its compact size, stable and reliable operation, and wide temperature design.

AAEON helped build a custom Android image which eliminated many unnecessary background applications, further saving processing power and energy, especially when the elevator is not in use. Utilizing wireless communication, the RICO-3399 connects to the company's maintenance servers allowing them to keep a close eye on the elevator, and help prevent breakdowns before they happen.





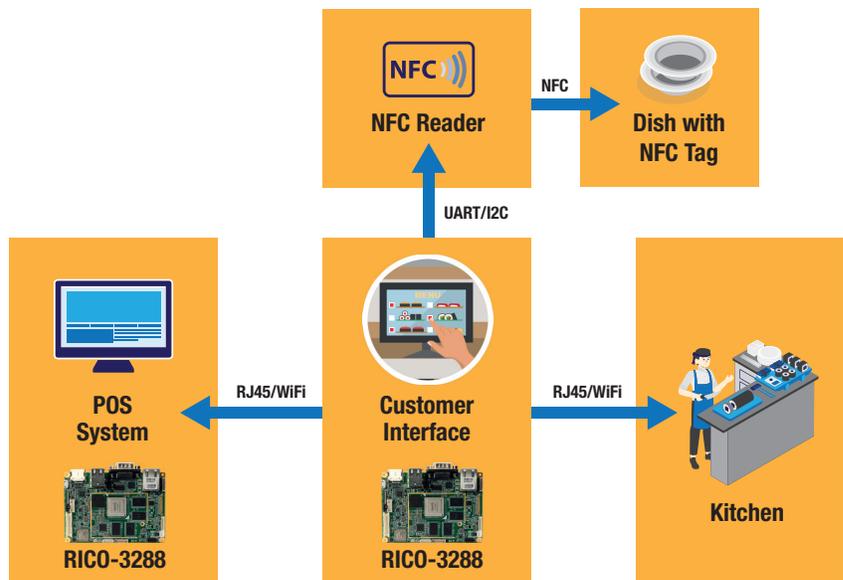
Requirements

- Compact Board
- Reliable Operation
- Custom Android Image
- Mechanical Design Support
- LCD with Touch Screen

Computerized Restaurant Ordering System RICO-3288

While most restaurants try to predict customer traffic and adjust their staffing to match, customer rushes can be unpredictable. Add in customer's ability to order individual dishes a la carte, such as in a sushi restaurant, and it becomes almost impossible to keep up with each individual diner. Many restaurants are turning to at-table ordering systems, with interactive touch-screen menu displays.

The RICO-3288 and AAEON RISC RTS solutions are at the forefront of designing and deploying these systems, helping provide LCD with touch screens, custom Android images, and even helping with mechanical design for ordering systems which can retract or hide out of the way when customers aren't using the systems.





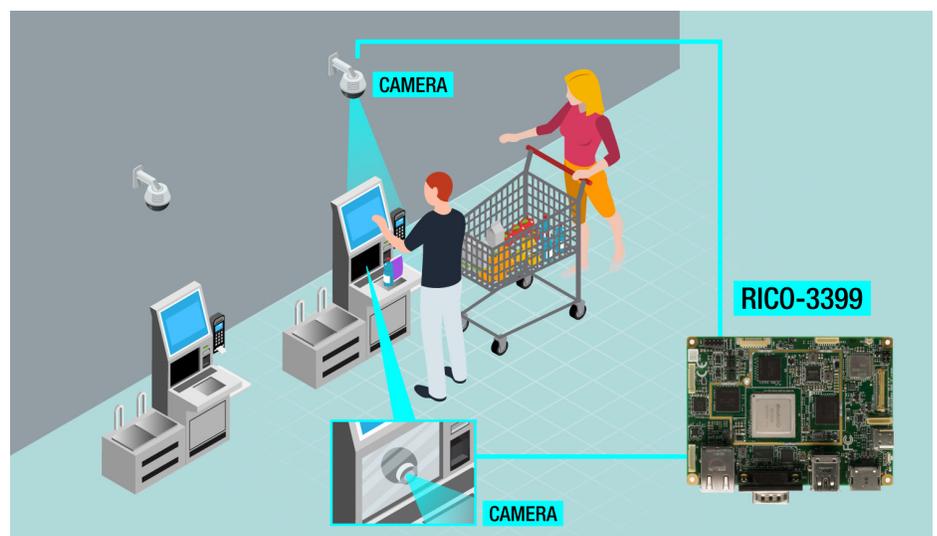
Requirements

- AI Edge Capable
- Reliable Operation
- Low Maintenance
- Wi-Fi Support
- Custom Android Image

Self-Checkout Loss Prevention RICO-3399

It's well known in the retail industry that self-checkout lanes provide greater customer convenience and experience. However, they have also become one of the highest sources of loss by shoplifting in large retailers. Deploying an object identification and behavioral analysis AI inference, retailers can better track and be alerted to potential shoplifters.

The RICO-3399 offers the processing needed to power these AI Edge Computing inferences, processing multiple camera inputs to observe customers as they check out. This also helps increase accuracy with self-checkout aisles, reducing false alarms which weight-based systems are often prone to. Fanless design and reliable operation also help reduce maintenance costs, and by connecting with the in-store networks, the RICO-3399 can warn loss prevention personnel of potential issues.

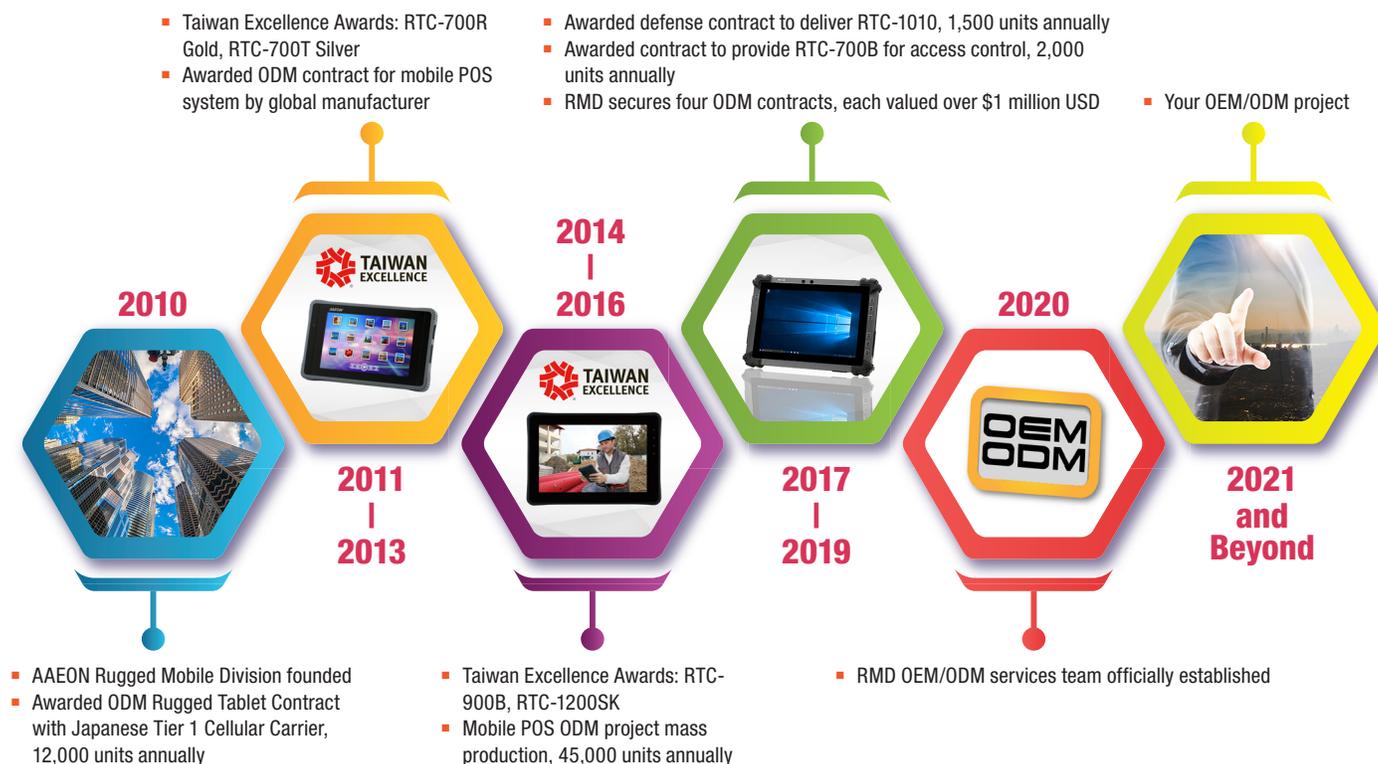


AAEON Rugged Mobile and RISC OEM/ODM Services

Introduction

AAEON Rugged Mobile Division (RMD) OEM/ODM team is dedicated to providing services for customers needing durable mobile solutions, whether board level RISC-based solutions or complete rugged systems. AAEON RMD offers over a decade of industry leading expertise and experience to bring end-to-end service and support, from firmware to smart battery management, integrated wireless communication to bright impact resistant LCD screens. RMD OEM/ODM can help accelerate development and reduce time to market whether its large volume production or small projects, with experience across a wide range of applications including ePOS, eBook reader, media boxes, fitness & exercise equipment and even client branded rugged tablets. We're also engaging new OEM/ODM markets including edge computing, AIOT gateways, and smart factory automation as part of the growing Industry 4.0 ecosystem.

Milestones



Core Competencies



Embedded Firmware Service

- Power Sequence, Sensors Access



Limitless Mobility

- RFID, 5G, WI-FI 6, Bluetooth, GPS



Smart Battery Management

- Gauge Controller, Dual Swappable Batteries, Extend Portable Battery Life



High Brightness LCD

- Low Humidity, High Transmittance, and UV-block Coating

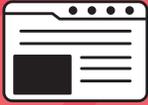
AAEON Rugged Mobile and RISC OEM/ODM Services

System



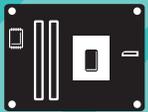
With AAEON RMD OEM/ODM services you get access to our knowledge and experience in designing rugged mobile systems, from mechanical design to selecting the right materials for the job, and ensuring a smooth manufacturing process to reduce and eliminate factory defects. RMD OEM/ODM covers all the bases, from design and process failure mode and effects analysis (DFMEA/PFMEA) to mold flow analysis, mechanical, tolerance and thermal analysis. RMD OEM/ODM offers total end-to-end service in designing, testing and deploying your custom system.

Software



AAEON RMD OEM/ODM team also includes dedicated software support. RMD OEM/ODM team can help power your board with services designed to ensure proper functionality with license operating systems like Microsoft® Windows™ or open-source OS like Android and Debian; building, testing and validating custom operating system images; or helping to validate and debug proprietary software, ensuring it runs smoothly. AAEON RMD OEM/ODM team provides rapid service, responding to software questions or issues quickly to prevent delays in deploying your application.

Board



The foundation of any project, RMD's OEM/ODM team can help design and build the perfect layout for your project. Utilizing both Intel x86 and ARM based processors including the Rockchip RK3000 series and NXP i.MX8, OEM/ODM customers can choose the best system for their applications. Functionality and flexibility are easy to achieve, whether you need broad I/O and expansion support, built-in Wi-Fi or cellular support (4G/LTE/5G), or need an ultrathin, compact board. How thin can we make it? Yes.

Service

AAEON RMD OEM/ODM team is dedicated to working closely with every customer, providing individualized service throughout the process. Our team responds to inquiries and issues quickly, and provides testing, validation and certification to help accelerate development and reduce time-to-market. RMD OEM/ODM service doesn't stop at the loading dock, either. AAEON is dedicated to providing service and support after our products leave the factory, providing quick response and turn around including RMAs processed within 24 hours.

01

► Rugged Tablet Computers



01



RTC-710RK

7" Rugged Tablet ARM-based Android™ with 1.6 GHz Quad Core Processor



Specifications

System Architecture	
Processor	Rockchip RK3399K Processor (Quad-Core A53 1.6GHz & Dual-Core A72 2.0GHz)
Operating System	Android 8.1
Memory	Onboard LPDDR4 2GB (Default) / 4GB
Storage	eMMC 16GB (Default) / 32GB / 64GB
Display	7" WXGA (1280x800) 300-nit / 700-nit TFT LCD With Projected Capacitive Multi-Touch Screen
I/O Port	SIM card slot x 1 USB 3.2 Gen 1 Type-C x 1 Audio jack x 1 (3.5mm) DC-in jack x 1 Micro-SD card slot x 1 USB 2.0 Type-A x 1 UART Port x 1 (Via I/O Module) 10/100/1000 Base-T RJ45 x 1 (Via I/O Module)
Communication	Wi-Fi 802.11 b/g/n, Bluetooth v4.2 (EDR + BLE)
Navigation	GPS + GLONASS (Default), BeiDou (Optional), External Antenna (Optional)
WWAN(optional)	LTE via M.2 slot (Optional) Hot-swappable Battery can not be used when LTE module is installed.
Camera	8MP front camera 8MP rear camera with flash
Sensor	G-sensor, E-compass, Gyro-sensor, Light-sensor
Expansion Slot	M.2 slot x 1 Docking connector: USB 3.2 Gen 1 x 1

Features

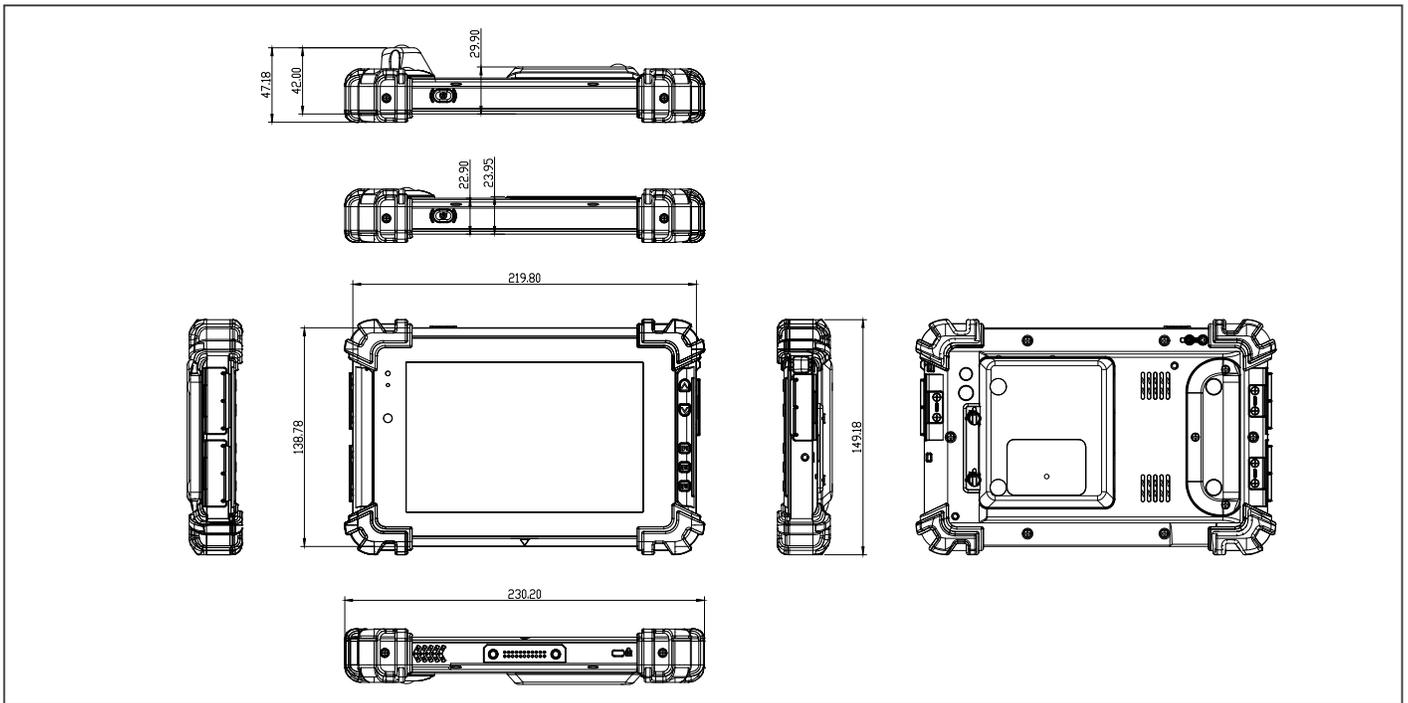
- 7" WXGA (1280 x 800) 700-nit / 300-nit TFT LCD
- Rockchip RK3399K Processor
- Onboard LPDDR4 Memory, 2GB (Default) / 4GB
- eMMC 16GB (Default) / 32GB / 64GB
- Projected Capacitive Multi-Touch Screen
- WiFi 802.11b/g/n, Bluetooth 4.2, LTE (Optional)
- 8MP Front and 8MP Rear Camera
- UART Port + 10/100/1000 Base-T RJ45 via I/O Module (Optional)
- USB 3.2 Gen 1 Type-C x 1, USB 2.0 Type-A x 1
- 2D Barcode Scanner via I/O Module (Optional)
- NFC (HF RFID) Reader (Optional)
- GPS + GLONASS (Default), BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F1, F2, F3, Volume Up/Down, With LED Illumination
- Android 8.1



Barcode Scanner (Optional)	2D Barcode scanner, OPTICON MDI-4100-USB via I/O module (Optional)
HF RFID (Optional)	ISO 15693 (R/W), ISO 18092 (R/W), ISO 14443-A (R/W), ISO 14443-B (R/W), Depend on card type
Audio	Speaker x 1
Physical Key	F1 (Audio On/Off), F2 (Screenprint), F3 (Barcode Scanner Trigger), Volume Up, Volume Down
Mechanical	
Color	Dark Gray
Dimension (W x H x D)	8.65" x 5.46" x 0.94" (219.8 x 138.8 x 23.9 mm)
Gross Weight	1.54 lb (0.7 Kg) based on configurations
Environmental	
Operating Temperature	-4°F ~ 140°F (-20°C ~ 60°C) for high-brightness version
Storage Temperature	-22°F ~ 158°F (-30°C ~ 70°C)
Humidity	MIL-STD-810G Method 507.5
Environmental Sealing	IP65
Vibration	MIL-STD-810G Method 514.6
Drop	MIL-STD-810G Method 516.6 Procedure IV Height of Drop: 122 cm (48 inch; 4 ft)
Shock	MIL-STD-810G
ESD	Air charge: +/- 8KV, Contact charge: +/- 4KV
Certifications and Standards	UL62368-1, CE, FCC, IC
Power Supply	
AC / DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 12V/ 3.34A/ 40W
Battery Life	Li-ion Battery 8-hour battery life based on test configurations
Master Battery	7.2V, 4540mAh, 32.7W
Slave Battery	Hot-swappable battery: 7.4V, 1530mAh, 11.3W (Optional)
Display	
LCD	7" TFT-LCD / 16:10, with LED backlight
Resolution	1280 x 800
Maximum Color	—
Dot Size	0.03925(H) X 0.11775(V) mm
Brightness	700 / 300 nits
Viewing Angle	Horizontal: 178° (Typ.), Vertical: 178° (Typ.)
Touch Screen	
Touch Type	7" Projected Capacitive Multi-Touch Screen (700 nits with 10 points / 300 nits with 5 points)
Light Transmission	Min. 85%

Dimension

Unit: mm



Packing List

- **RTC-710RK**
 - **1255X00008**
AC-To-DC Power Adaptor, 12V, 40W
- *Power cord must be purchased separately.

Optional Accessories

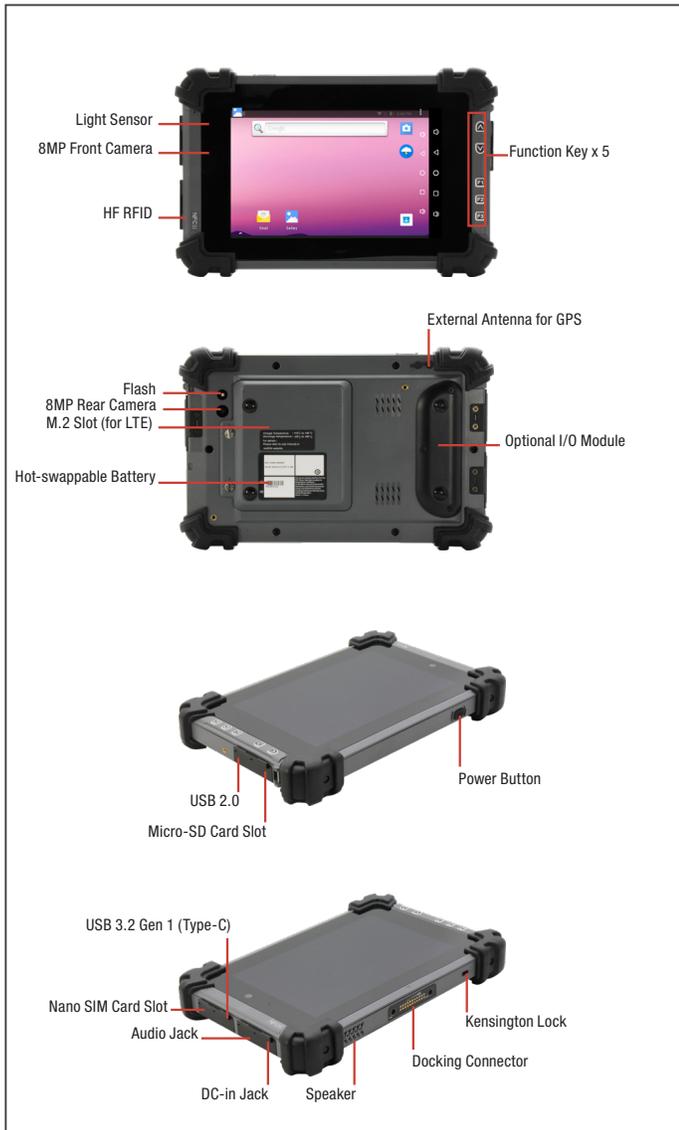
- **RDS-0710-000**
Docking Station
- **RDS-0710-001**
Docking Station, W/ Stand
- **RTC-710-HS-000**
Hand Strap
- **RTC-710-BAG-000**
Carry Bag
- **RDS-0040-0000**
4-Bay Battery Charger
- **9741600R04**
Battery Pack, 7.4V, 1530mAh, 2pcs/Box
- **RTC-710-VMP-000**
VESA Mount Plate
- **1259X00003**
Car Adapter, Cigarette Plug
- **1702031802**
Power Cord for USA
- **1702031803**
Power Cord for Europe

Ordering Information

Part Number	CPU	OS	LCD Display	Touch Screen	System Memory	Storage	Expansion I/O	Sensor	WiFi/Bluetooth	Navigation	LTE Bands (MHz)	Camera	Docking	2D Barcode Scanner	HF RFID	Battery	Power
RTC-710RK-RH0001	RK3399K	Android 8.1	7" 700 nits	PCT 10 points	LPDDR4 2GB	eMMC 16GB	SIM card slot x 1, USB 3.2 Gen 1 Type-C x 1, Audio jack x 1 (3.5mm), DC-in jack x 1, Micro-SD card slot x 1, USB 2.0 Type-A x 1	G-sensor Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	—	—	Front: 8MP	—	—	—	32.7W (internal)	DC12V
RTC-710RK-RH0002	RK3399K	Android 8.1	7" 700 nits	PCT 10 points	LPDDR4 2GB	eMMC 16GB	SIM card slot x 1, USB 3.2 Gen 1 Type-C x 1, Audio jack x 1 (3.5mm), DC-in jack x 1, Micro-SD card slot x 1, USB 2.0 Type-A x 1	G-sensor Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	GPS / GLONASS	—	Front: 8MP Rear: 8MP w/ Flash	Yes	—	Yes	32.7W + 11.3W	DC12V
RTC-710RK-RH0003	RK3399K	Android 8.1	7" 700 nits	PCT 10 points	LPDDR4 2GB	eMMC 16GB	SIM card slot x 1, USB 3.2 Gen 1 Type-C x 1, Audio jack x 1 (3.5mm), DC-in jack x 1, Micro-SD card slot x 1, USB 2.0 Type-A x 1, UART Port x 1 (Via I/O Module), 10/100/1000 Base-T RJ45 x 1 (Via I/O Module)	G-sensor Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	GPS / GLONASS	—	Front: 8MP Rear: 8MP w/ Flash	Yes	—	Yes	32.7W + 11.3W	DC12V
RTC-710RK-RH0004	RK3399K	Android 8.1	7" 700 nits	PCT 10 points	LPDDR4 2GB*	eMMC 16GB	SIM card slot x 1, USB 3.2 Gen 1 Type-C x 1, Audio jack x 1 (3.5mm), DC-in jack x 1, Micro-SD card slot x 1, USB 2.0 Type-A x 1, 2D BCR x 1 (Via I/O Module)	G-sensor Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	GPS / GLONASS	—	Front: 8MP Rear: 8MP w/ Flash	Yes	Yes	Yes	32.7W + 11.3W	DC12V
RTC-710RK-RH0005	RK3399K	Android 8.1	7" 700 nits	PCT 10 points	LPDDR4 4GB	eMMC 16GB	SIM card slot x 1, USB 3.2 Gen 1 Type-C x 1, Audio jack x 1 (3.5mm), DC-in jack x 1, Micro-SD card slot x 1, USB 2.0 Type-A x 1	G-sensor Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	GPS / GLONASS	—	Front: 8MP Rear: 8MP w/ Flash	Yes	—	Yes	32.7W + 11.3W	DC12V

RTC-710AP

7" Rugged Tablet Features Intel N3350 / N4200 Processor with Windows® 10



Features

- 7" WXGA (1280 x 800) 700-nit / 300-nit TFT LCD
- Intel® Celeron™ N3350 1.1GHz Dual Core Up to 2.4GHz (N4200 Optional)
- Onboard LPDDR4 Memory, 4GB (Default) / 8GB
- eMMC 64GB (Default) / 128GB
- Projected Capacitive Multi-Touch Screen
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 8MP Rear Camera
- RS-232 COM Port + 10/100/1000 Base-T RJ45 via I/O Module (Optional)
- USB 3.2 Gen 1 Type-C x 1, USB 2.0 Type-A x 1
- 2D Barcode Scanner via I/O Module (Optional)
- NFC (HF RFID) Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IOT



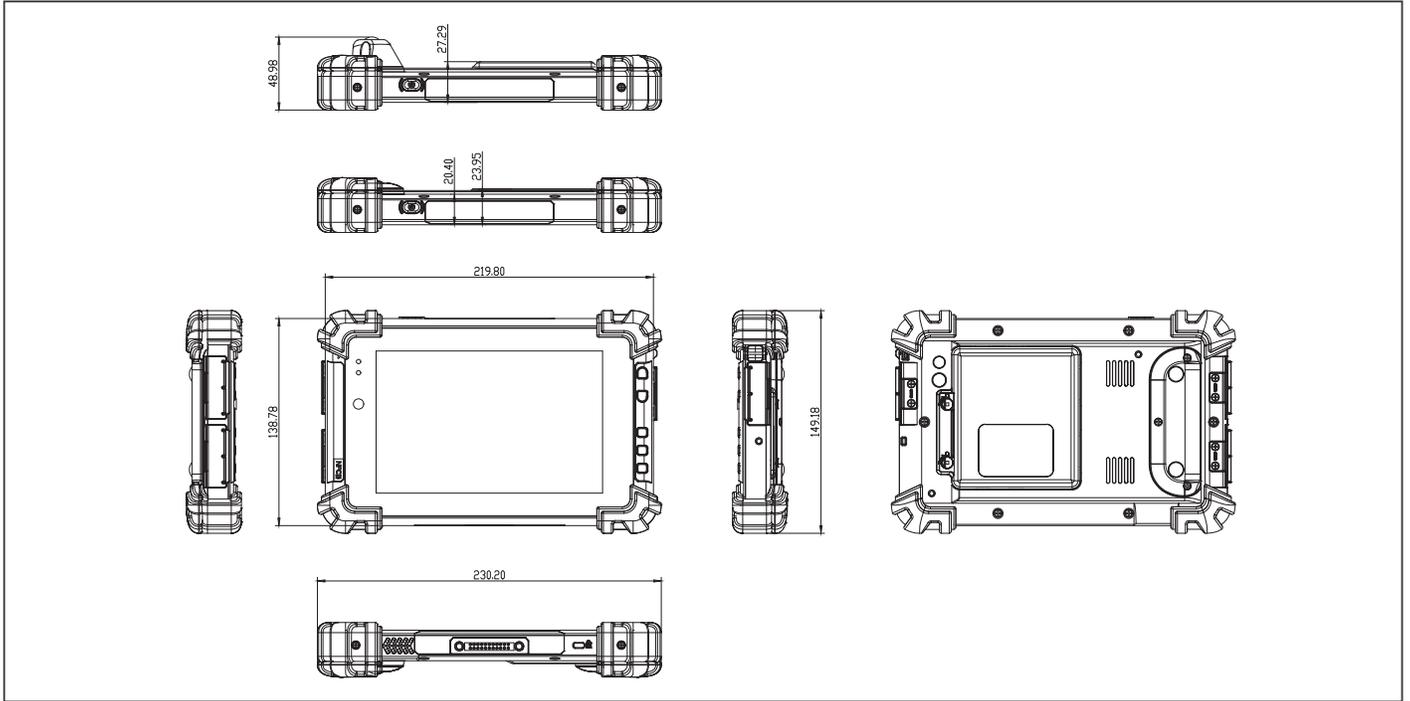
HF RFID (Optional)	ISO 15693 (R/W), ISO 18092 (R/W), ISO 14443-A (R/W), ISO 14443-B (Only Read UID), Depend on card type
Audio	Speaker x 1
Physical Key	F1 (Ctrl+Alt+Del as Soft Reboot), F2 (Screenprint), F3 (Barcode Scanner Trigger), Volume Up, Volume Down
Mechanical	
Color	Dark Gray
Dimension (W x H x D)	8.65" x 5.46" x 0.94" (219.8 x 138.8 x 23.9 mm)
Gross Weight	1.54 lb (0.7 Kg) based on configurations
Environmental	
Operating Temperature	-4°F ~ 140°F (-20°C ~ 60°C) for high-brightness version
Storage Temperature	-22°F ~ 158°F (-30°C ~ 70°C)
Humidity	MIL-STD-810G Method 507.5
Environmental Sealing	IP65
Vibration	MIL-STD-810G Method 514.6
Drop	MIL-STD-810G Method 516.6 Procedure IV Height of Drop: 122 cm (48 inch; 4 ft)
Shock	MIL-STD-810G
ESD	Air charge: +/- 8KV, Contact charge: +/- 4KV
Certifications and Standards	UL62368-1, CE, FCC, IC
Power Supply	
AC / DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 12V/ 3.34A/ 40W
Battery Life	Li-ion Battery 8-hour battery life based on test configurations
Master Battery	7.2V, 4540mAh, 32.7W
Slave Battery	Hot-swappable battery: 7.4V, 1530mAh, 11.3W (Optional)
Display	
LCD	7" TFT-LCD / 16:10, with LED backlight
Resolution	1280 x 800
Maximum Color	—
Dot Size	0.03925(H) X 0.11775(V) mm
Brightness	700 / 300 nits
Viewing Angle	Horizontal: 178° (Typ.), Vertical: 178° (Typ.)
Touch Screen	
Touch Type	7" Projected Capacitive Multi-Touch Screen (700 nits with 10 points / 300 nits with 5 points)
Light Transmission	Min. 85%

Specifications

System Architecture	
Processor	Intel® Celeron™ N3350 1.1GHz Dual core up to 2.4GHz Intel® Pentium™ N4200 1.1GHz Quad core up to 2.5GHz
Operating System	Windows® 10 IOT Enterprise SAC
Memory	Onboard LPDDR4 4GB (Default) / 8GB
Storage	eMMC 64GB (Default) / 128GB
Display	7" WXGA (1280x800) 300-nit / 700-nit TFT LCD With Projected Capacitive Multi-Touch Screen
I/O Port	SIM card slot x 1 USB 3.2 Gen 1 Type-C x 1 Audio jack x 1 (3.5mm) DC-in jack x 1 Micro-SD card slot x 1 USB 2.0 Type-A x 1 RS-232 COM Port x 1 (Via I/O Module) 10/100/1000 Base-T RJ45 x 1 (Via I/O Module)
Communication	Wi-Fi 802.11 b/g/n, Bluetooth v5.1
Navigation	Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional) External Antenna (Optional)
WWAN(optional)	LTE via M.2 slot (Optional) Hot-swappable Battery can not be used when LTE module is installed.
Camera	2MP front camera, 8MP rear camera with flash
Sensor	G-sensor, E-compass, Gyro-sensor, Light-sensor
Expansion Slot	M.2 slot x 1, Docking connector: USB 3.2 Gen 1 x 1
Barcode Scanner (Optional)	2D Barcode scanner, OPTICON MDI-4100-USB via I/O module (Optional)

Dimension

Unit: mm



Packing List

- **RTC-710AP**
 - **1255X00008**
AC-To-DC Power Adaptor, 12V, 40W
- *Power cord must be purchased separately.

Optional Accessories

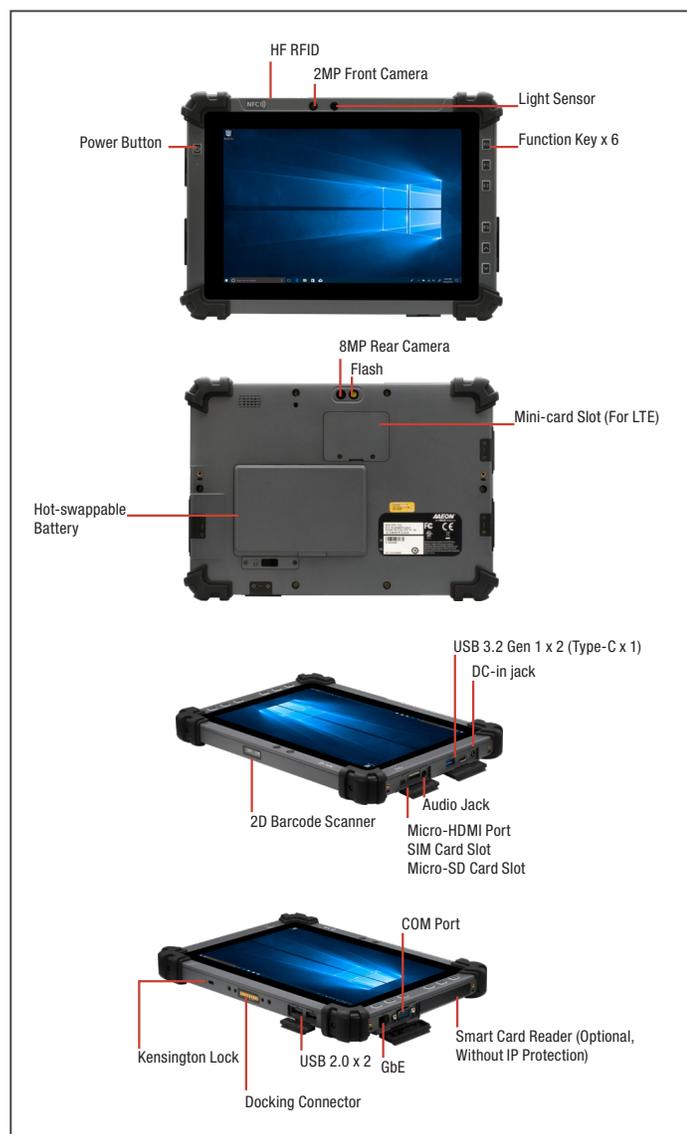
- **RDS-0710-000**
Docking Station
- **RDS-0710-001**
Docking Station, W/ Stand
- **RTC-710-HS-000**
Hand Strap
- **RTC-710-BAG-000**
Carry Bag
- **RDS-0040-0000**
4-Bay Battery Charger
- **9741600R04**
Battery Pack, 7.4V, 1530mAh, 2pcs/Box
- **RTC-710-VMP-000**
VESA Mount Plate
- **1259X00003**
Car Adapter, Cigarette Plug
- **1702031802**
Power Cord for USA
- **1702031803**
Power Cord for Europe

Ordering Information

Part Number	CPU	OS	LCD Display	Touch Screen	System Memory	Storage	Expansion I/O	Sensor	WiFi/ Bluetooth	Navigation	LTE Bands (MHz)	Camera	Docking Connector	2D Barcode Scanner	NFC	Battery	Power
RTC-710AP-RH0001	N4200	Windows 10 IOT	7" 700 nits	PCT 10 points	LPDDR4 4GB	eMMC 64GB	SIM card slot x 1 USB 3.2 Gen 1 Type-C x 1 Audio jack x 1 (3.5mm) DC-in jack x 1 Micro-SD card slot x 1 USB 2.0 Type-A x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	—	—	Front: 2MP	—	—	—	32.7W (internal)	DC12V
RTC-710AP-RH0002	N4200	Windows 10 IOT	7" 700 nits	PCT 10 points	LPDDR4 4GB	eMMC 64GB	SIM card slot x 1 USB 3.2 Gen 1 Type-C x 1 Audio jack x 1 (3.5mm) DC-in jack x 1 Micro-SD card slot x 1 USB 2.0 Type-A x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	GPS / Galileo / GLONASS	—	Front: 2MP Rear: 8MP w/ Flash	Yes	—	Yes	32.7W (internal) +11.3W(external)	DC12V
RTC-710AP-RH0003	N4200	Windows 10 IOT	7" 700 nits	PCT 10 points	LPDDR4 4GB*	eMMC 64GB	SIM card slot x 1 USB 3.2 Gen 1 Type-C x 1 Audio jack x 1 (3.5mm) DC-in jack x 1 Micro-SD card slot x 1 RS232 Port x 1 (Via I/O Module) 10/100/1000 Base-T RJ45 x 1 (Via I/O Module)	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	GPS / Galileo / GLONASS	—	Front: 2MP Rear: 8MP w/ Flash	Yes	—	—	32.7W (internal) +11.3W(external)	DC12V
RTC-710AP-RH0004	N4200	Windows 10 IOT	7" 700 nits	PCT 10 points	LPDDR4 4GB	eMMC 64GB	SIM card slot x 1 USB 3.2 Gen 1 Type-C x 1 Audio jack x 1 (3.5mm) DC-in jack x 1 Micro-SD card slot x 1 USB 2.0 Type-A x 1 2D BCR x 1 (Via I/O Module)	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT4.2	GPS / Galileo / GLONASS	—	Front: 2MP Rear: 8MP w/ Flash	Yes	Yes	Yes	32.7W (internal)+11.3W (external)	DC12V

RTC-1010

10.1" Rugged Tablet Features Intel N3350 / N4200 Processor With Windows® 10



Specifications

System Architecture	
Processor	Intel® Celeron™ N3350 1.1GHz Dual core up to 2.4GHz Intel® Pentium™ N4200 1.1GHz Quad core up to 2.5GHz
Operating System	Windows® 10 IOT Enterprise SAC
Memory	Onboard DDR3L 4GB (Default) / 8GB
Storage	eMMC 64GB (Up to 256GB, Optional)
Display	10.1" WXGA (1280x800) 800-nit / 300-nit TFT LCD With Projected Capacitive Multi-Touch Screen
I/O Port	Micro-HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 (3.5mm) USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1 Smart card reader x 1 (Optional, Without IP protection)
Communication	Wi-Fi 802.11 b/g/n, Bluetooth v5.1 (EDR + BLE), Intel AC9260
Navigation	Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
WWAN(optional)	LTE via mini-card slot (Optional)
Camera	2MP front camera 8MP rear camera with flash
Sensor	G-sensor, E-compass, Gyro-sensor, Light-sensor
Expansion Slot	Inside M.2 slot x 1 (For WiFi module) Mini-card slot x 1 (For LTE module) Docking connector: USB 2.0 x 1

Features

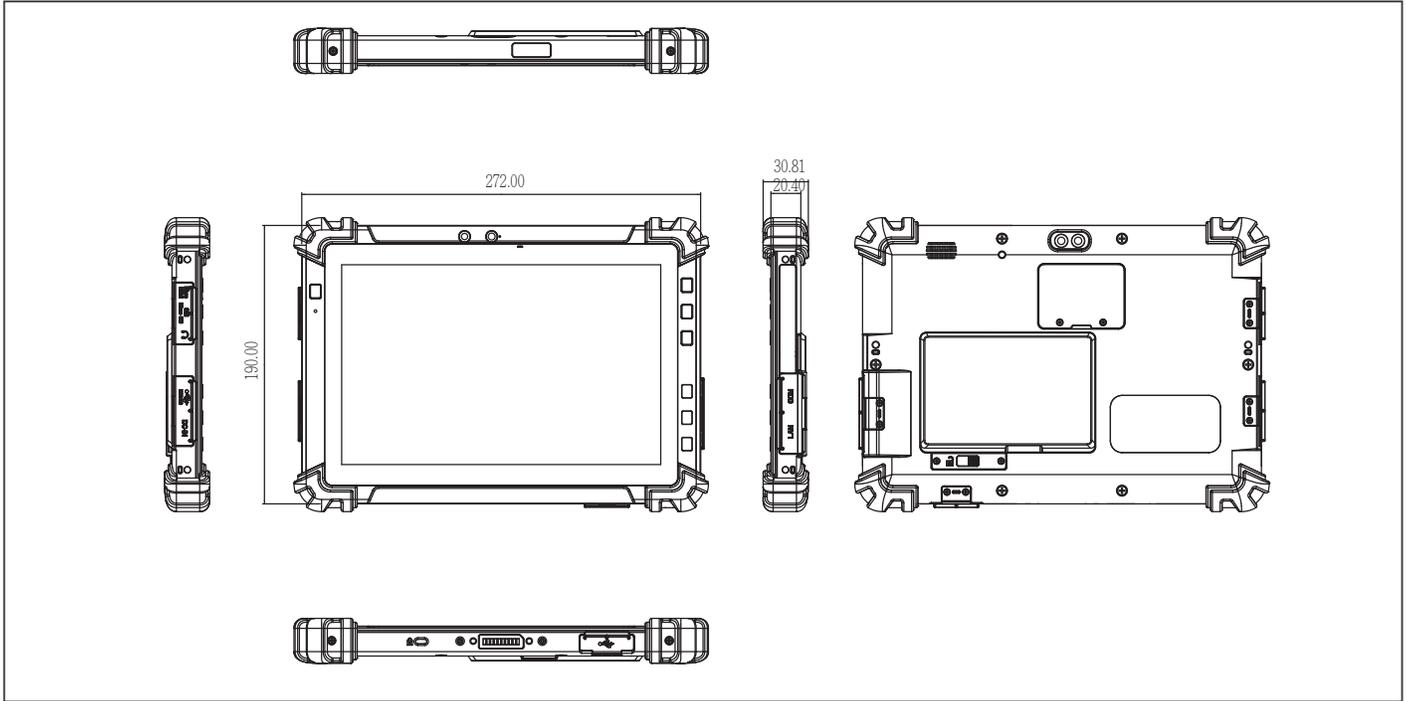
- 10.1" WXGA (1280 x 800) 800-nit / 300-nit TFT LCD
- Intel® Celeron™ N3350 1.1GHz Dual Core Up to 2.4GHz (N4200 Optional)
- Onboard DDR3L Memory, 4GB (Default) / 8GB
- eMMC 64GB (Up to 256GB, Optional)
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 8MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner & Smart Card Reader / HF RFID (NFC) Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F0, F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IOT



Barcode Scanner (Optional)	2D Barcode scanner, OPTICON MDI-4100-USB (Optional)
HF RFID (Optional)	ISO 15693 (R/W), ISO 18092 (R/W), ISO 14443-A (R/W), ISO 14443-B (Only Read UID), Depend on card type
Audio	Speaker x 1
Physical Key	F0 or Windows (Windows Start Key), F1 (BCR Trigger Button (When BCR is enabled)), F2 (Screenprint), F3 (Ctrl+Alt+Del as Soft Reboot), Volume Up (Speaker Volume Up), Volume Down (Speaker Volume Down)
Mechanical	
Color	Black & Dark Grey
Dimension (W x H x D)	10.71" x 7.48" x 0.80" (272.0 x 190.0 x 20.4 mm)
Gross Weight	1.0 Kg (2.2 lb) based on configurations
Environmental	
Operating Temperature	-4°F ~ 122°F (-20°C ~ 50°C)
Storage Temperature	-22°F ~ 158°F (-30°C ~ 70°C)
Humidity	0% ~ 90% relative humidity, non-condensing
Environmental Sealing	IP65
Vibration	MIL-STD-810G-514.6 Procedure I Cat.24, Fig 514.6E-1 & 514.6E-2 (Unit is non-operating) ASTM 4169-99 Truck Assurance Level II, Schedule E (Unit is non-operating)
Drop	MIL-STD-810G-516.6, Procedure IV Drop height: 122 cm Number of Drop: 26 times, for all surfaces, edges and corners Condition: Based on 2" plywood over concrete
Shock	—
ESD	Air charge: +/- 8KV, Contact charge: +/- 4KV
Certifications and Standards	UL60950-1, CE, FCC
Power Supply	
AC / DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 12V/ 3A/ 36W
Battery Life	Li-ion Battery 8-hour battery life based on test configurations
Master Battery	Hot-swappable battery: 14.4V, 2270mAh, 32.7W
Slave Battery	7.4V, 1530mAh, 11.3W
Display	
LCD	10.1" TFT-LCD Display
Resolution	1280 x 800
Maximum Color	16.7M
Dot Size	0.1692 (H) x 0.1692 (V) mm
Brightness	300 nits (800 nits, Optional)
Viewing Angle	Horizontal: 170°, Vertical: 170° (Typical)
Touch Screen	
Touch Type	Projected Capacitive Multi-Touch Screen (PCT)
Light Transmission	Min. 85%

Dimension

Unit: mm



Packing List

- RTC-1010
- 1255300365

AC-To-DC Power Adaptor, 12V, 36W

*Power cord must be purchased separately.

Optional Accessories

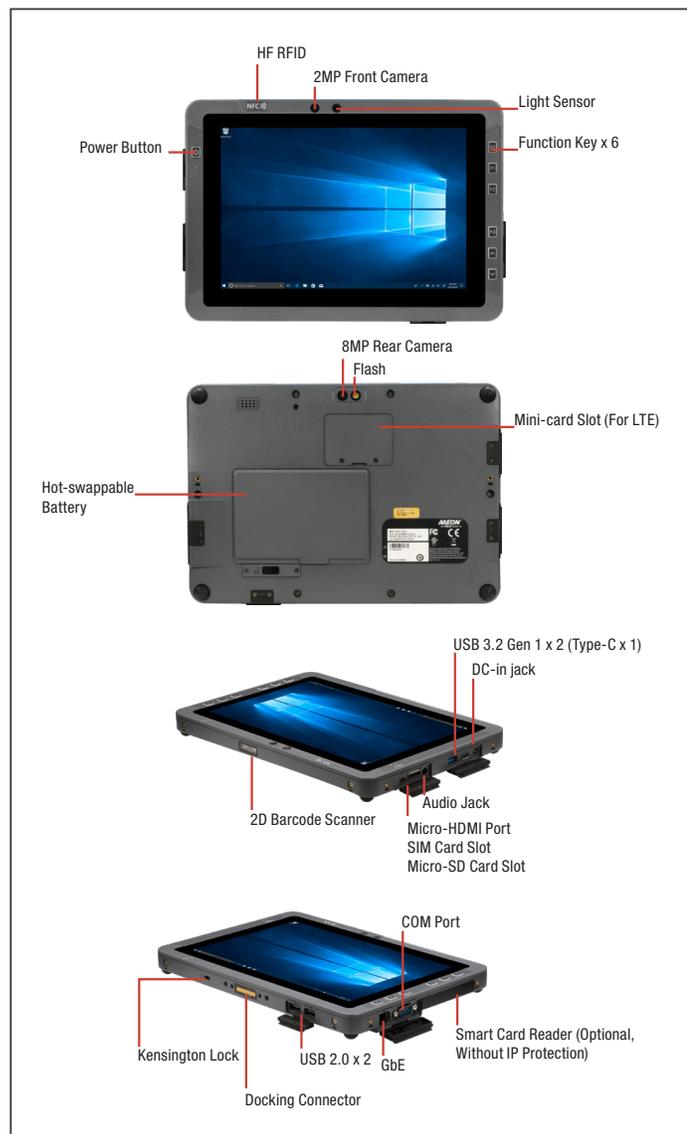
- RDS-411-000
Docking Station, W/O Stand
- RDS-411-001
Docking Station, W/ Stand
- RBC-1200-000
4-bay Battery Charger
- RTC-1010-HS-000
Hand Strap
- RTC-1010-SB-000
Shoulder Belt, 2 Points
- RTC-1200BAT01-000
Battery Pack, 14.4V, 2270mAh , 2 pcs/Box
- 1255900363
DC-To-DC Power Adaptor, Flying Wires
- 1255900364
DC-To-DC Power Adaptor, Cigarette Plug

Ordering Information

Part Number	CPU	OS	LCD Display	Touch Screen	System Memory	Storage	Expansion I/O	Sensor	WiFi/Bluetooth	Navigation	LTE Bands (MHz)	Camera	2D Barcode Scanner	NFC	Battery	Power
RTC-1010-R2004	N3350	Windows 10 IOT	10.1" 300 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1, Audio jack x 1, USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1	G-sensor E-compass Gyro-sensor Light-sensor"	802.11 b/g/n + BT5.1	N/A	N/A	Front: 2MP Rear: 8MP w/Flash"	N/A	N/A	32.7W	DC12V
RTC-1010-R2005	N3350	Windows 10 IOT	10.1" 300 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1, Audio jack x 1, USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1, RS-232/422/485 COM Port x 1, 10/100/1000 Base-T RJ45 x 1	"G-sensor E-compass Gyro-sensor Light-sensor"	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	N/A	"Front: 2MP Rear: 8MP w/Flash"	N/A	N/A	32.7W + 11.3W	DC12V
RTC-1010-R2001	N3350	Windows 10 IOT	10.1" 300 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1, Audio jack x 1, USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1, RS-232/422/485 COM Port x 1, 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor"	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	N/A	"Front: 2MP Rear: 8MP w/Flash"	Yes	Yes	32.7W + 11.3W	DC12V
RTC-1010-R2003	N4200	Windows 10 IOT	10.1" 300 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1, Audio jack x 1, USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1, RS-232/422/485 COM Port x 1, 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor"	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	N/A	"Front: 2MP Rear: 8MP w/Flash"	Yes	Yes	32.7W + 11.3W	DC12V
RTC-1010-RH2005	N3350	Windows 10 IOT	10.1" 800 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1, Audio jack x 1, USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1, RS-232/422/485 COM Port x 1, 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor"	"802.11 b/g/n + BT5.1"	GPS / Galileo / GLONASS	N/A	"Front: 2MP Rear: 8MP w/Flash"	N/A	N/A	32.7W + 11.3W	DC12V
RTC-1010-RH2003	N4200	Windows 10 IOT	10.1" 800 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1, Audio jack x 1, USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1, RS-232/422/485 COM Port x 1, 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor"	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	N/A	"Front: 2MP Rear: 8MP w/Flash"	Yes	Yes	32.7W + 11.3W	DC12V

RTC-1010M

10.1" Semi-rugged Tablet Features Intel N3350 / N4200 Processor With Windows® 10



Features

- 10.1" WXGA (1280 x 800) 300-nit TFT LCD (Default)
- Intel® Celeron™ N3350 1.1GHz Dual Core Up to 2.4GHz (N4200 Optional)
- Onboard DDR3L Memory, 4GB (Default) / 8GB
- eMMC 64GB (Up to 256GB, Optional)
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 8MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45 (Optional)
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner & Smart Card Reader (Optional)
- HF RFID (NFC) / MSR Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- IP54 Compliant, Drop 76cm
- Programmable Function Key: F0, F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IOT



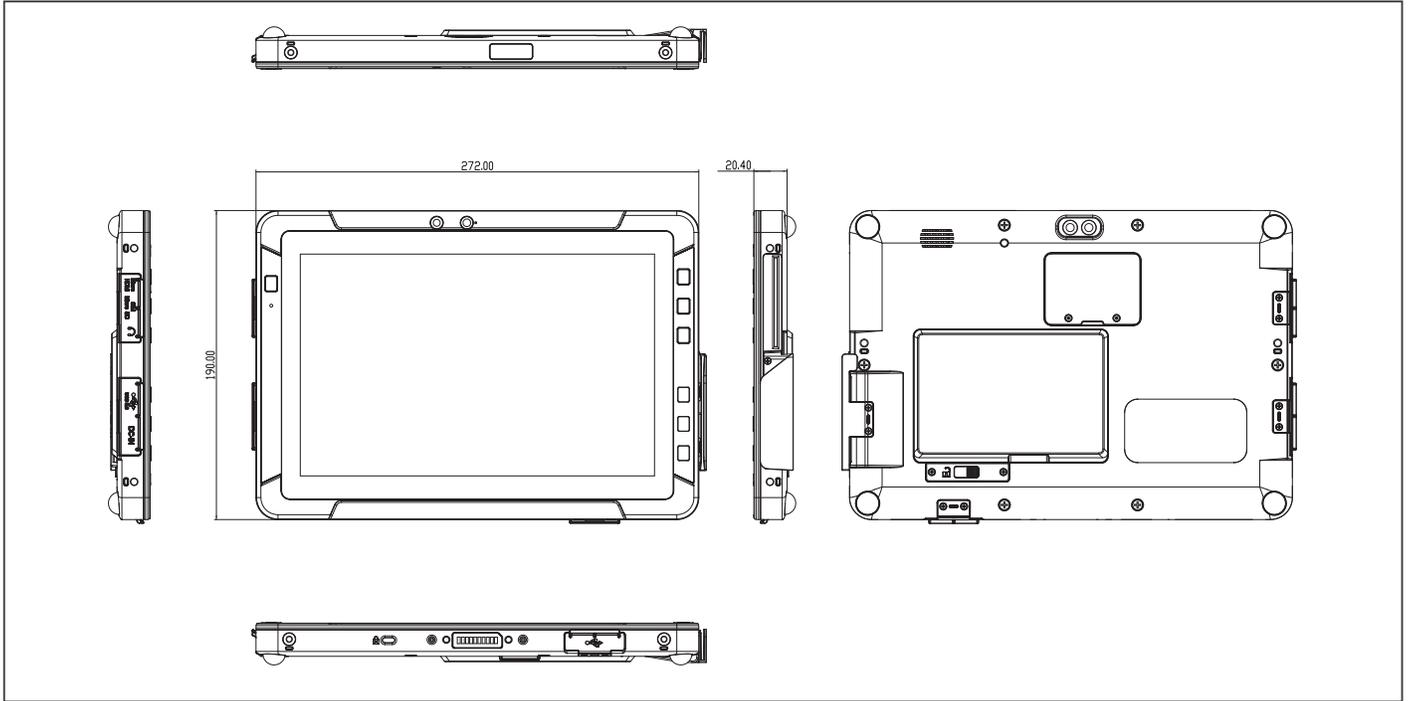
HF RFID (Optional)	ISO 15693 (R/W), ISO 18092 (R/W), ISO 14443-A (R/W), ISO 14443-B (Only Read UID), Depend on card type
Audio	Speaker x 1
Physical Key	F0 or Windows (Windows Start Key), F1 (BCR Trigger Button (When BCR is enabled)), F2 (Screenprint), F3 (Ctrl+Alt+Del as Soft Reboot), Volume Up (Speaker Volume Up), Volume Down (Speaker Volume Down)
Mechanical	
Color	Black & Dark Grey
Dimension (W x H x D)	10.71" x 7.48" x 0.80" (272.0 x 190.0 x 20.4 mm)
Gross Weight	2.1 lb (0.95 Kg) based on configurations
Environmental	
Operating Temperature	-4°F ~ 122°F (-20°C ~ 50°C)
Storage Temperature	-22°F ~ 158°F (-30°C ~ 70°C)
Humidity	0% ~ 90% relative humidity, non-condensing
Environmental Sealing	IP54
Vibration	—
Drop	Drop height: 76 cm Condition: Based on 2" plywood over concrete
Shock	—
ESD	Air charge: +/- 8KV, Contact charge: +/- 4KV
Certifications and Standards	UL60950-1, CE, FCC
Power Supply	
AC / DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 12V / 3A / 36W
Battery Life	Li-ion Battery 8-hour battery life based on test configurations
Master Battery	Hot-swappable battery: 14.4V, 2270mAh, 32.7W
Slave Battery	7.4V, 1530mAh, 11.3W
Display	
LCD	10.1" TFT-LCD Display
Resolution	1280 x 800
Maximum Color	16.7M
Dot Size	0.1692 (H) x 0.1692 (V) mm
Brightness	300 nits (800 nits, Optional)
Viewing Angle	Horizontal: 170°, Vertical: 170° (Typical)
Touch Screen	
Touch Type	Projected Capacitive Multi-Touch Screen (PCT)
Light Transmission	Min. 85%

Specifications

System Architecture	
Processor	Intel® Celeron™ N3350 1.1GHz Dual core up to 2.4GHz Intel® Pentium™ N4200 1.1GHz Quad core up to 2.5GHz
Operating System	Windows® 10 IOT Enterprise SAC
Memory	Onboard DDR3L 4GB (Default) / 8GB
Storage	eMMC 64GB (Up to 256GB, Optional)
Display	10.1" WXGA (1280x800) 300-nit TFT LCD With Projected Capacitive Multi-Touch Screen
I/O Port	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1 Audio jack x 1 (3.5mm), USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in jack x 1 RS-232/422/485 COM Port x 1 (Optional) 10/100/1000 Base-T RJ45 x 1 (Optional) Smart card reader x 1 (Optional, Without IP protection) MSR reader x 1 (Optional, Without IP protection)
Communication	Wi-Fi 802.11 b/g/n, Bluetooth v5.1 (EDR + BLE), Intel AC9260
Navigation	Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
WWAN(optional)	LTE via mini-card slot (Optional)
Camera	2MP front camera, 8MP rear camera with flash
Sensor	G-sensor, E-compass, Gyro-sensor, Light-sensor
Expansion Slot	Inside M.2 slot x 1 (For WiFi module) Mini-card slot x 1 (For LTE module) Docking connector: USB 2.0 x 1
Barcode Scanner (Optional)	2D Barcode scanner, OPTICON MDI-4100-USB (Optional)

Dimension

Unit: mm



Packing List

- **RTC-1010M**
 - **1255300365**
AC-To-DC Power Adaptor, 12V, 36W
- *Power cord must be purchased separately.

Optional Accessories

- **RDS-411-000**
Docking Station, W/O Stand
- **RDS-411-001**
Docking Station, W/ Stand
- **RBC-1200-000**
4-bay Battery Charger
- **RTC-1010-HS-000**
Hand Strap
- **RTC-1010-SB-000**
Shoulder Belt, 2 Points
- **RTC-1200BAT01-000**
Battery Pack, 14.4V, 2270mAh, 2 pcs/Box

Ordering Information

Part Number	CPU	OS	LCD Display	Touch Screen	System Memory	Storage	Expansion I/O	Sensor	WiFi/Bluetooth	Navigation	LTE Bands (MHz)	Camera	2D Barcode Scanner	SCR	HF RFID	MSR	Battery	Power
RTC-1010-M2002	N3350	Windows 10 IOT	10.1" 300 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	—	—	Front: 2MP	—	—	—	—	32.7W	DC12V
RTC-1010-M2001	N3350	Windows 10 IOT	10.1" 300 nits	PCT 10 points	DDR3L 4GB*	eMMC 64GB	Micro-HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	—	Front: 2MP Rear: 8MP w/ Flash	Yes	Yes	Yes	Yes	32.7W + 11.3W	DC12V
RTC-1010-M2003	N4200	Windows 10 IOT	10.1" 300 nits	PCT 10 points	DDR3L 4GB	eMMC 64GB	Micro-HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 USB 3.0 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	—	Front: 2MP Rear: 8MP w/ Flash	Yes	—	Yes	—	32.7W + 11.3W	DC12V

RTC-1020 PRELIMINARY

10.1" Rugged Tablet Features Intel Tiger Lake Up To x.x GHz x Core Processor with Windows® 10



Specifications

System Architecture	
Processor	Intel® Core™ i Tiger Lake UP3 processor i5-1145G7E / i3-1115G4E / Celeron 6305E
Operating System	Windows® 10 IOT Enterprise SAC (Default), Ubuntu
Memory	Onboard LPDDR4X, 8GB (Default) / 16GB
Storage	M.2 SSD, 64GB (Default) / 128GB / 256GB
Display	10.1" FHD (1920x1200) 450-nit / 850-nit TFT-LCD With Projected Capacitive Multi-Touch Screen
I/O Port	Micro-HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1, Audio jack x 1 (3.5mm), USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in Jack x 1, RS-232/422/485 COM Port x 1, 10/100/1000 Base-T RJ45 x 1
Communication	Wi-Fi 802.11 b/g/n Bluetooth v5.1 (EDR + BLE) Intel AC9260
Navigation	Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
WWAN(optional)	LTE via M.2 slot (Optional)
Camera	5MP front camera, 8MP rear camera with flash
Sensor	G-sensor, E-compass, Gyro-sensor, Light-sensor
Expansion Slot	M.2 slot x 3 (One for SSD, One for WiFi module, One for LTE module) Docking connector x 1: USB 3.2 Gen 1 x 1
Barcode Scanner (Optional)	2D Barcode scanner, OPTICON MDI-4100-USB (Optional)
HF RFID (Optional)	ISO 15693 (R/W), ISO 18092 (R/W), ISO 14443-A (R/W), ISO 14443-B (Only Read UID), Depend on card type

Features

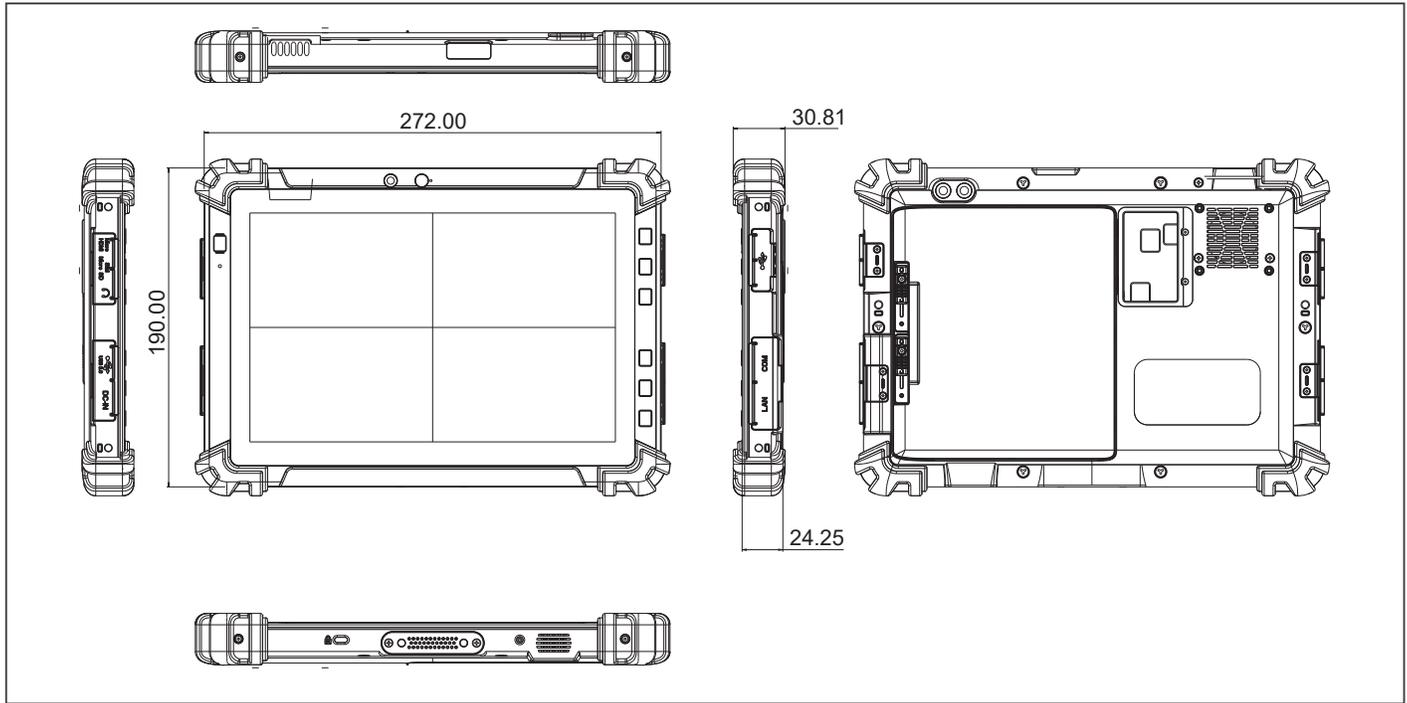
- 10.1" FHD (1920 x 1200) 450-nit / 850-nit TFT LCD
- Intel® Core™ i Tiger Lake UP3 Processor
- Onboard LPDDR4X, 8GB (Default) / 16GB
- M.2 SSD, 64GB (Default) / 128GB / 256GB
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 5MP Front and 8MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner (Optional)
- HF RFID (NFC) Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- Hot-swappable Battery, 14.4V/ 2270mAh, 32.7W x 2 (51.1W x 2, Optional)
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F0, F1, F2, F3, Volume Up/Down, With LED Illumination
- Windows® 10 IOT (Default), Ubuntu



Audio	Speaker x 1
Physical Key	F0 or Windows (Windows Start Key), F1 (BCR Trigger Button (When BCR is enabled)), F2 (Screenprint), F3 (Ctrl+Alt+Del as Soft Reboot), Volume Up (Speaker Volume Up), Volume Down (Speaker Volume Down)
Mechanical	
Color	Black & Dark Grey
Dimension (W x H x D)	10.71" x 7.48" x 0.94" (272.0 x 190.0 x 24.0 mm)
Gross Weight	1.5 Kg (3.3 lbs) based on configurations
Environmental	
Operating Temperature	-4°F ~ 122°F (-20°C ~ 50°C)
Storage Temperature	-22°F ~ 158°F (-30°C ~ 70°C)
Humidity	0% ~ 90% relative humidity, non-condensing
Environmental Sealing	IP65
Vibration	MIL-STD-810G-514.6 Procedure I Cat.24, Fig 514.6E-1 & 514.6E-2 (Unit is non-operating)
Drop	MIL-STD-810G-516.6 Procedure IV Drop height: 122cm Number of Drop: 26 times, for all surfaces, edges and corners Condition: Based on 2" plywood over concrete
Shock	—
ESD	Air charge: +/- 8KV, Contact charge: +/- 4KV
Certifications and Standards	UL62368, CE, FCC, IC
Power Supply	
AC / DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 19W/ 3.42A/ 65W
Battery Life	Li-ion Battery 6-hour battery life based on test configurations
Master Battery	Hot-swappable battery: 14.4V, 2270mAh, 32.7W 14.8V, 3450mAh, 51.1W (Optional)
Slave Battery	Hot-swappable battery: 14.4V, 2270mAh, 32.7W 14.8V, 3450mAh, 51.1W (Optional)
Display	
LCD	10.1" TFT-LCD Display
Resolution	1920 x 1200
Maximum Color	16.7M
Dot Size	—
Brightness	450 nits (850 nits, Optional)
Viewing Angle	Horizontal: 160°, Vertical: 160° (Typical)
Touch Screen	
Touch Type	Projected Capacitive Multi-Touch Screen (PCT)
Light Transmission	Min. 85%

Dimension

Unit: mm



Packing List

- **RTC-1020**
 - **125530065A**
AC-To-DC Power Adaptor, 19V, 65W
- *Power cord must be purchased separately.

Optional Accessories

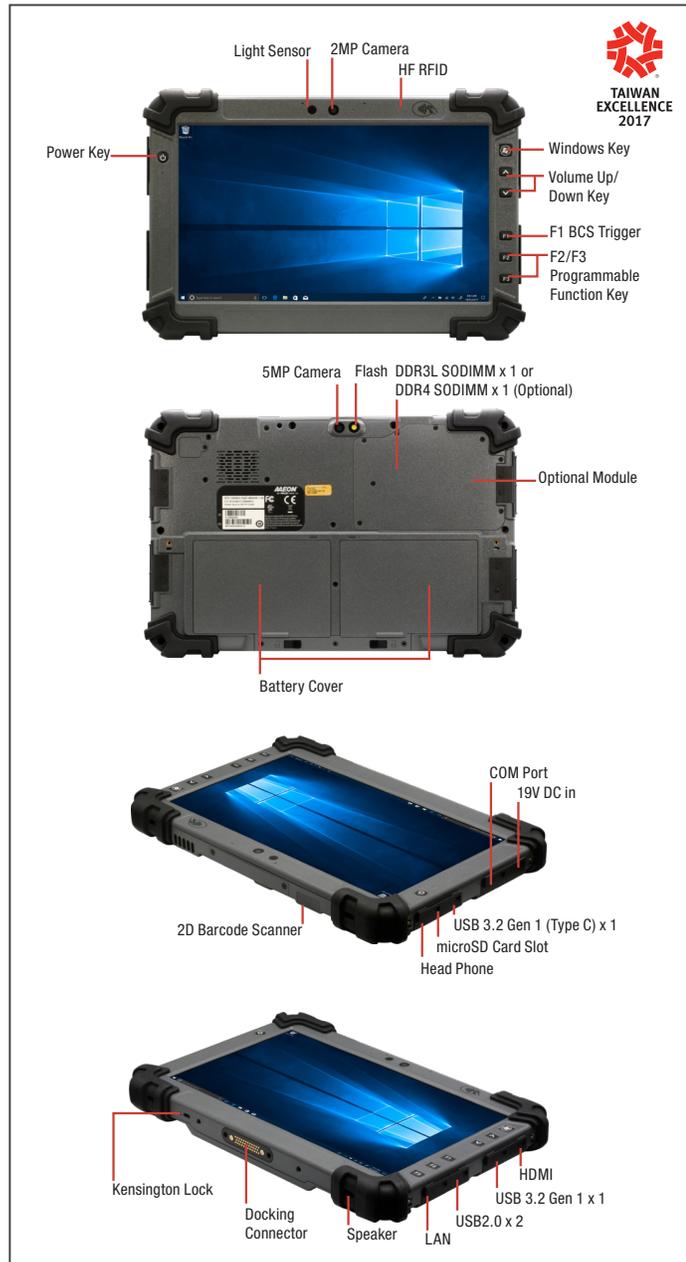
- **RDS-1020-000**
Docking Station, W/O Stand
- **RDS-1020-001**
Docking Station, W/ Stand
- **RBC-1200-000**
4-bay Battery Charger, for 32.7W battery pack
- **RBC-1020-000**
4-bay Battery Charger, for 51.1W battery pack
- **RTC-1010-SB-000**
Shoulder Belt, 2 Points
- **RTC-1200BAT01-000**
Battery Pack, 14.4V, 2,270mAh, 2 pcs/Box
- **RTC-1020-BAT-000**
Battery Pack, 14.8V, 3,450mAh, 2 pcs/Box
- **1259X00004**
DC-To-DC Power Adaptor, Flying Wires
- **1255900901**
DC-To-DC Power Adaptor, Cigarette Plug

Ordering Information

Part Number	CPU	OS	LCD Display	Touch Screen	System Memory	Storage	Expansion I/O	Sensor	WiFi/Bluetooth	Navigation	LTE Bands (MHz)	Camera	2D Barcode Scanner	NFC	Battery	Power
RTC-1020-R0001	Celeron 6305E	Windows 10 IoT	10.1" 450 nits	PCT 10 points	Onboard LPDDR4X 8GB	M.2 64GB	Micro-HDMI port x 1, SIM card slot x 1 Micro-SD card slot x 1, Audio jack x 1, USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	—	Front: 5MP Rear: 8MP w/ Flash	—	—	32.7W + 32.7W	DC19V
RTC-1020-RH0001	Celeron 6305E	Windows 10 IoT	10.1" 850 nits	PCT 10 points	Onboard LPDDR4X 8GB	M.2 64GB	Micro-HDMI port x 1, SIM card slot x 1 Micro-SD card slot x 1, Audio jack x 1 USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	—	Front: 5MP Rear: 8MP w/ Flash	—	—	32.7W + 32.7W	DC19V
RTC-1020-RH0002	i3-1115G4E	Windows 10 IoT	10.1" 850 nits	PCT 10 points	Onboard LPDDR4X 8GB	M.2 64GB	Micro-HDMI port x 1, SIM card slot x 1 Micro-SD card slot x 1, Audio jack x 1 USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	—	Front: 5MP Rear: 8MP w/ Flash	—	Yes	32.7W + 32.7W	DC19V
RTC-1020-RH0003	i3-1115G4E	Windows 10 IoT	10.1" 850 nits	PCT 10 points	Onboard LPDDR4X 8GB	M.2 64GB	Micro-HDMI port x 1, SIM card slot x 1 Micro-SD card slot x 1, Audio jack x 1 USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	—	Front: 5MP Rear: 8MP w/ Flash	Yes	Yes	32.7W + 32.7W	DC19V
RTC-1020-RH0004	i5-1145G7E	Windows 10 IoT	10.1" 850 nits	PCT 10 points	Onboard LPDDR4X 8GB	M.2 64GB	Micro-HDMI port x 1, SIM card slot x 1 Micro-SD card slot x 1, Audio jack x 1 USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / Galileo / GLONASS	—	Front: 5MP Rear: 8MP w/ Flash	—	Yes	32.7W + 32.7W	DC19V

RTC-1200

11.6" Rugged Tablet Features Intel Kaby Lake Up To 3.9 GHz Dual Core Processor with Windows® 10



Features

- 11.6" FHD (1920 x 1080) 500-nit / 850-nit TFT LCD
- Intel® Core™ i 7100U / 7300U / Celeron® 3965U Up to 3.9 GHz
- One DDR4 SODIMM Socket, Up to 16GB
- One M.2 Slot for SSD, 64GB (Default) / 128GB / 256GB
- WiFi 802.11b/g/n, Bluetooth 5.1, LTE (Optional)
- 2MP Front and 5MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner / HF RFID (NFC) Reader (Optional)
- Hot-swappable Battery, 14.4V/ 2270mAh, 32.7W x 2
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: Windows, Volume Up/Down, P1, P2, P3, With LED Illumination
- Docking Connector with GNSS / WWAN Antenna Pass-through Connector
- Windows® 10 IOT



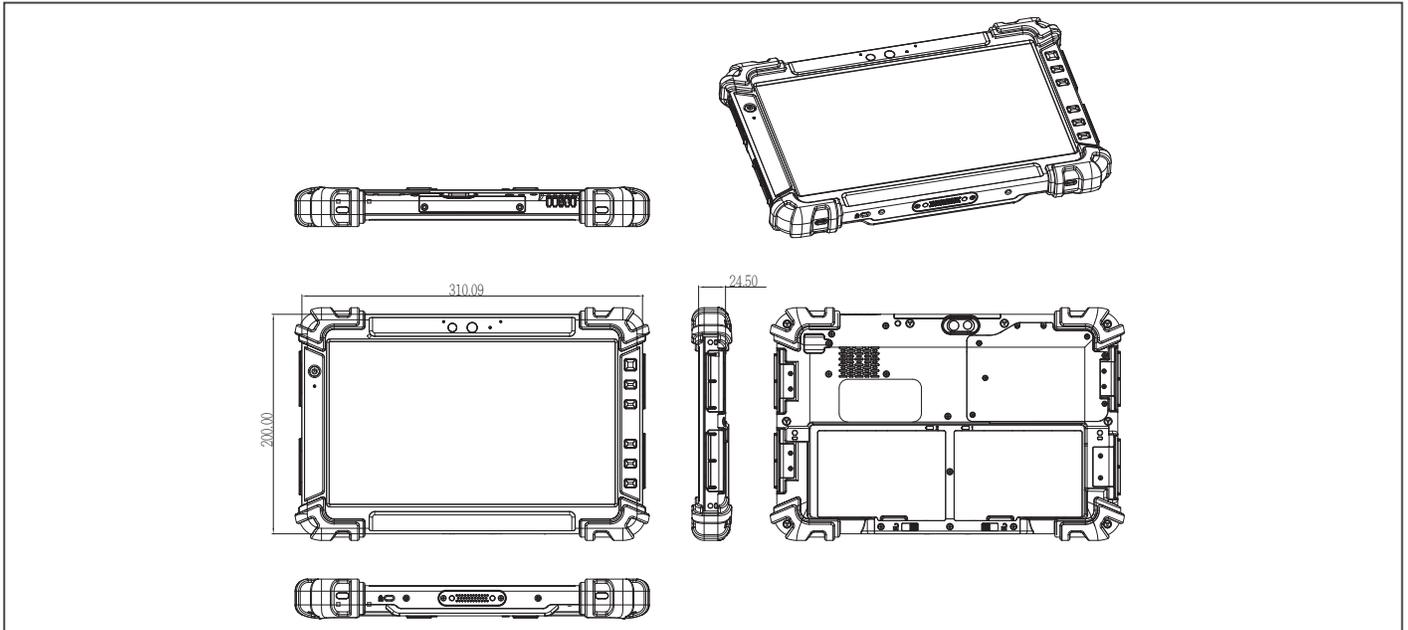
Expansion Slot	Mini-card slot x 1 (For LTE module) Docking connector x 1 GNSS antenna Pass-through connector x 1 WWAN antenna Pass-through connector x 1
Barcode Scanner (Optional)	2D Barcode scanner, OPTICON MDI-4100-USB (Optional)
HF RFID (Optional)	ISO 15693 (R/W), ISO 18092 (R/W), ISO 14443-A (R/W), ISO 14443-B (Only Read UID), Depend on card type
Audio	Speaker x 1
Physical Key	F0 or Windows (Windows Start Key), F1 (Ctrl+Atl+Del & BCR Trigger Button (When BCR is enabled)), F2 (Touch Mode Switch), F3 (Screenprint), Volume Up (Speaker Volume Up), Volume Down (Speaker Volume Down)
Mechanical	
Color	Gray & Black
Dimension (W x H x D)	12.36" x 7.87" x 0.96" (310.4 mm x 200.0 mm x 24.5 mm)
Gross Weight	3.3 lbs (1.5 Kg)
Environmental	
Operating Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Storage Temperature	-22°F ~ 158°F (-30°C ~ 70°C)
Humidity	5% ~ 90% relative humidity, non-condensing
Environmental Sealing	IP65
Vibration	MIL-STD-810G-514.6 Procedure I Cat.24, Fig 514.6E-1 & 514.6E-2
Drop	MIL-STD-810G Method 516.6 Procedure IV -Height of Drop: 122cm (48 inch; 4ft) -Number of Drop: 26 times, for all surfaces, edges and corners Condition: Based on 2" plywood over concrete
Shock	—
ESD	Air charge: +/- 8KV, Contact charge: +/- 4KV
Certifications and Standards	UL60950-1, CE/LVD: EN60950-1, CE, FCC
Power Supply	
AC / DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 19V/ 3.42A/ 65W
Battery Life	Li-ion Battery 6-hour battery life based on test configurations
Master Battery	Hot-swappable battery: 14.4V, 2270mAh, 32.7W
Slave Battery	Hot-swappable battery: 14.4V, 2270mAh, 32.7W
Display	
LCD	11.6" TFT-LCD Display
Resolution	1920 x 1080
Maximum Color	16.7M
Dot Size	0.117 (H) x 0.117 (V) mm
Brightness	500 nits (850 nits, Optional)
Viewing Angle	Horizontal: 178°, Vertical: 178° (Typical)
Touch Screen	
Touch Type	Projected Capacitive Multi-Touch Screen (PCT) Gloves / Finger mode Switchable by F2
Light Transmission	Min. 87% (ASTM D1003; Wavelength = 550 nm)

Specifications

System Architecture	
Processor	Intel® Core™ i 7100U / 7300U Dual Core up to 3.9GHz Intel® Celeron® 3965U Dual Core 2.2GHz Processor
Operating System	Windows® 10 IoT Enterprise 64bit (Default)
Memory	DDR4 SO-DIMM Socket x 1, up to 16GB
Storage	M.2 (NGFF) SSD, 64GB (Default) / 128GB / 256GB
Display	11.6" FHD (1920x1080) 500-nit / 850-nit TFT-LCD With Projected Capacitive Multi-Touch Screen
I/O Port	HDMI port x 1, SIM card slot x 1, Micro-SD card slot x 1 Audio jack x 1 (3.5mm), USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2, DC-in Jack x 1, RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1
Communication	Wi-Fi 802.11 b/g/n, Bluetooth v5.1
Navigation	GPS, GLONASS ==> Located in I/O board, PER-T407 143NEOM8Q0: u-blox NEO-M8Q-0
WWAN(optional)	LTE via mini-card slot (Optional)
Camera	2MP front camera, 5MP auto-focus rear camera with flash
Sensor	G-sensor, E-compass, Gyro-sensor, Light-sensor

Dimension

Unit: mm



Packing List

- **RTC-1200**
 - **125530065A**
AC-To-DC Power Adaptor, 19V, 65W
- *Power cord must be purchased separately.

Optional Accessories

- **RDS-241V-0000**
Docking Station, W/ Stand
- **RDS-241V-0001**
Docking Station, W/O Stand
- **RBC-1200-000**
4-bay Battery Charger
- **RTC-1200HSP01-000**
Rotating Hand-Strap
- **RTC-1200BLT01-000**
Shoulder Belt
- **RTC-1200BAT01-000**
Battery Pack, 14.4V, 2270mAh, 2 pcs/Box
- **RTC-1200BKT01-000**
Mounting Bracket (VESA/RAM)
- **RTC-1200-STS01-000**
Passive Stylus
- **RTC-1200-STS02-000**
Active Stylus
- **1259X00004**
DC-To-DC Power Adaptor, Flying Wires
- **1255900901**
DC-To-DC Power Adaptor, Cigarette Plug

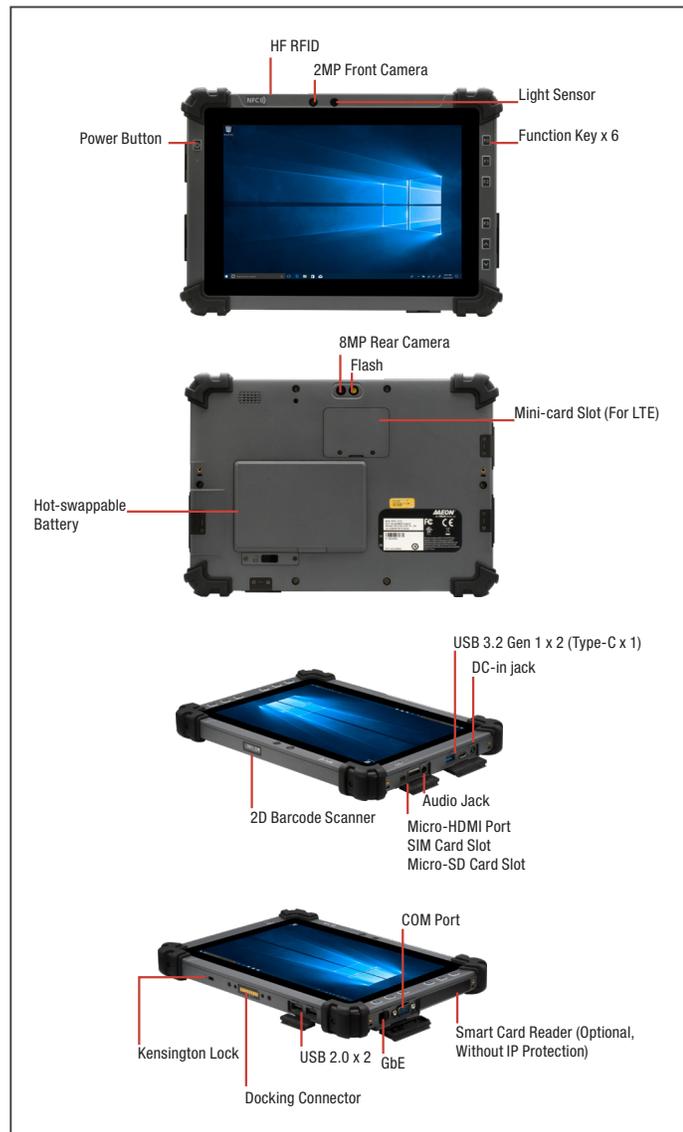
* Small quantity MOQ may apply for optional/customized services.

Ordering Information

Part Number	CPU	OS	LCD Display	Touch Screen	System Memory	Storage	Expansion I/O	Sensor	WiFi/Bluetooth	Navigation	LTE Bands (MHz)	Camera	2D Barcode Scanner	NFC	Battery	Power
RTC-1200-RH1001	Celeron 3965U	Windows 10 IOT	11.6" 850 nits	PCT 10 points	SODIMM DDR4 4GB	M.2 64GB	HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 USB 3.0 x 1, USB 2.0 x 2 DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / GLONASS	—	Front: 2MP Rear: 5MP w/ Flash	—	—	32.7W + 32.7W	DC19V
RTC-1200-RH1002	i3-7100U	Windows 10 IOT	11.6" 850 nits	PCT 10 points	SODIMM DDR4 4GB	M.2 64GB	HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 USB 3.0 x 1, USB 2.0 x 2 DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / GLONASS	—	Front: 2MP Rear: 5MP w/ Flash	—	Yes	32.7W + 32.7W	DC19V
RTC-1200-RH1003	i3-7100U	Windows 10 IOT	11.6" 850 nits	PCT 10 points	SODIMM DDR4 4GB	M.2 64GB	HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 USB 3.0 x 1, USB 2.0 x 2 DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / GLONASS	—	Front: 2MP Rear: 5MP w/ Flash	Yes	Yes	32.7W + 32.7W	DC19V
RTC-1200-RH1004	i5-7300U	Windows 10 IOT	11.6" 850 nits	PCT 10 points	SODIMM DDR4 4GB	M.2 64GB	HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 USB 3.0 x 1, USB 2.0 x 2 DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1	G-sensor E-compass Gyro-sensor Light-sensor	802.11 b/g/n + BT5.1	GPS / GLONASS	—	Front: 2MP Rear: 5MP w/ Flash	—	Yes	32.7W + 32.7W	DC19V

RTC-1010RK PRELIMINARY

10.1" Rugged Tablet Features Rockchip RK3399 With Android 10.0



Specifications

System Architecture	
Processor	Rockchip RK3399 Processor (Quad-Core A53 1.6GHz & Dual-Core A72 2.0GHz)
Operating System	Android 10.0 (Will start from Android 8.1 for samples)
Memory	Onboard LPDDR4 2GB (Default) / 4GB
Storage	eMMC 16GB (Default) / 32GB
Display	10.1" WXGA (1280x800) 800-nit / 300-nit TFT LCD With Projected Capacitive Multi-Touch Screen
I/O Port	Micro-HDMI port x 1 SIM card slot x 1 Micro-SD card slot x 1 Audio jack x 1 (3.5mm) USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2 DC-in jack x 1 RS-232/422/485 COM Port x 1 10/100/1000 Base-T RJ45 x 1
Communication	Wi-Fi 802.11 b/g/n, Bluetooth v5.0 (EDR + BLE)
Navigation	Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
WWAN(optional)	LTE via M.2 slot (Optional)
Camera	8MP front camera, MIPI I/F 8MP rear camera with flash, MIPI I/F
Sensor	G-sensor, Gyro-sensor, Light-sensor
Expansion Slot	Inside M.2 slot x 1, M Key (For storage or others) M.2 slot, B Key 3042 (For LTE module) Docking connector: USB 2.0 x 1

Features

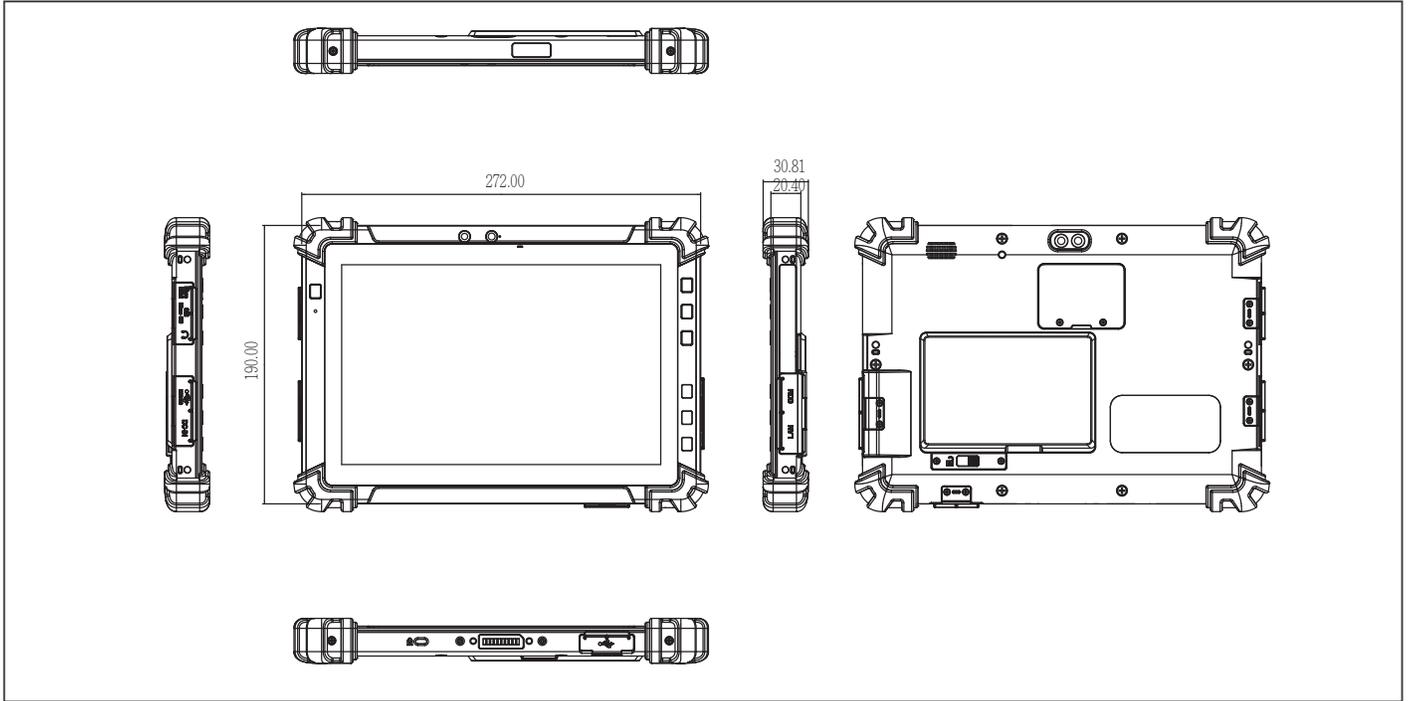
- 10.1" WXGA (1280 x 800) 800-nit / 300-nit TFT LCD
- Rockchip RK3399 Processor
- Onboard LPDDR4 Memory, 2GB (Default) / 4GB
- eMMC 16GB (Default) / 32GB
- WiFi 802.11b/g/n, Bluetooth 5.0, LTE (Optional)
- 8MP Front and 8MP Rear Camera
- RS-232/422/485 COM Port + 10/100/1000 Base-T RJ45
- USB 3.2 Gen 1 x 2 (USB Type-C x 1), USB 2.0 x 2
- 2D Barcode Scanner (Optional)
- HF RFID (NFC) Reader (Optional)
- Up to 3 GNSS, GPS + Galileo (Default), GLONASS, BeiDou (Optional)
- One Hot-swappable Battery + Internal Battery, Up to 44W Battery Capacity
- MIL-STD-810G, IP65 Compliant, Drop 122cm
- Programmable Function Key: F0, F1, F2, F3, Volume Up/Down, With LED Illumination
- Android 10.0



Barcode Scanner (Optional)	2D Barcode scanner, OPTICON MDI-4100-USB (Optional)
HF RFID (Optional)	ISO 15693 (R/W), ISO 18092 (R/W), ISO 14443-A (R/W) ISO 14443-B (Only Read UID), Depend on card type
Audio	Speaker x 1
Physical Key	F0 or Windows (TBD), F1 (BCR Trigger Button (When BCR is enabled)), F2 (Screenprint), F3 (Audio On/Off), Volume Up (Speaker Volume Up), Volume Down (Speaker Volume Down)
Mechanical	
Color	Black & Dark Grey
Dimension (W x H x D)	272.0 x 190.0 x 20.4 mm (10.71" x 7.48" x 0.80")
Gross Weight	2.2 lb (1.0 Kg) based on configurations
Environmental	
Operating Temperature	-20°C ~ 50°C (-4°F ~ 122°F)
Storage Temperature	-30°C ~ 70°C (-22°F ~ 158°F)
Humidity	0% ~ 90% relative humidity, non-condensing
Environmental Sealing	IP65
Vibration	MIL-STD-810G-514.6 Procedure I Cat.24, Fig 514.6E-1 & 514.6E-2 (Unit is non-operating)
Drop	MIL-STD-810G-516.6, Procedure IV Drop height: 122 cm Number of Drop: 26 times, for all surfaces, edges and corners Condition: Based on 2" plywood over concrete
Shock	TBC
ESD	Air charge: +/- 8KV, Contact charge: +/- 4KV
Certifications and Standards	UL62368-1, CE, FCC, IC
Power Supply	
AC / DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 12V/ 3A/ 36W
Battery Life	Li-ion Battery 8-hour battery life based on test configurations
Master Battery	Hot-swappable battery: 14.4V, 2270mAh, 32.7W
Slave Battery	7.4V, 1530mAh, 11.3W
Display	
LCD	10.1" TFT-LCD Display
Resolution	1280 x 800
Maximum Color	16.7M
Dot Size	0.1692 (H) x 0.1692 (V) mm
Brightness	300 nits (800 nits, Optional)
Viewing Angle	Horizontal: 170°, Vertical: 170° (Typical)
Touch Screen	
Touch Type	Projected Capacitive Multi-Touch Screen (PCT)
Light Transmission	Min. 85%

Dimension

Unit: mm



Packing List

- **RTC-1010RK**
- **1255300365**
AC-To-DC Power Adaptor, 12V, 36W
- **Power Cord (By Order)**

*Power cord must be purchased separately.

Ordering Information

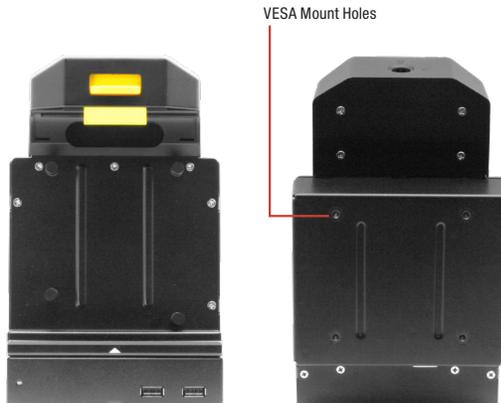
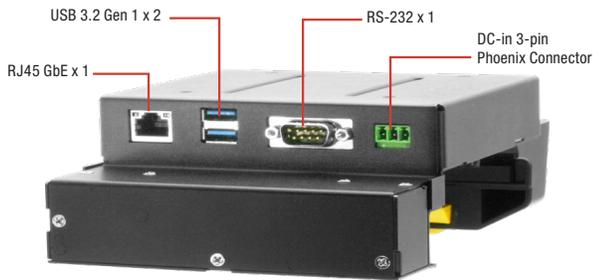
- TBD

Optional Accessories

- **RDS-411-000**
Docking Station, W/O Stand
- **RDS-411-001**
Docking Station, W/ Stand
- **RBC-1200-000**
4-bay Battery Charger
- **RTC-1010-HS-000**
Hand Strap
- **RTC-1010-SB-000**
Shoulder Belt, 2 Points
- **RTC-1200BAT01-000**
Battery Pack, 14.4V, 2270mAh , 2 pcs/Box
- **170203J000**
DC Input Cable, 2 Meters, For RDS-411
- **1255900363**
DC-To-DC Power Adaptor, 12V to 36V Input, 12V/3A Output, One End-DC Jack, One End-Two Flying
- **1255900364**
DC-To-DC Power Adaptor, 12V to 36V Input, 12V/3A Output, One End-DC Jack, One End-Cigarette Plug

RDS-0710

Rugged Docking Station for RTC-710



Features

- Apply on RTC-710
- Front-facing I/Os: USB 2.0 x 2
- Downward-facing I/Os for Easy Cable Management: USB 3.2 Gen 1 x 2, RS-232 x 1, RJ45 GbE x 1, DC-in Phoenix Connector x 1
- Wide Voltage Input: 9VDC ~ 36VDC
- Power Adaptor: AC Power Adaptor (Default)
- Anti-theft Lock with Key & VESA Mount Support (75x75)

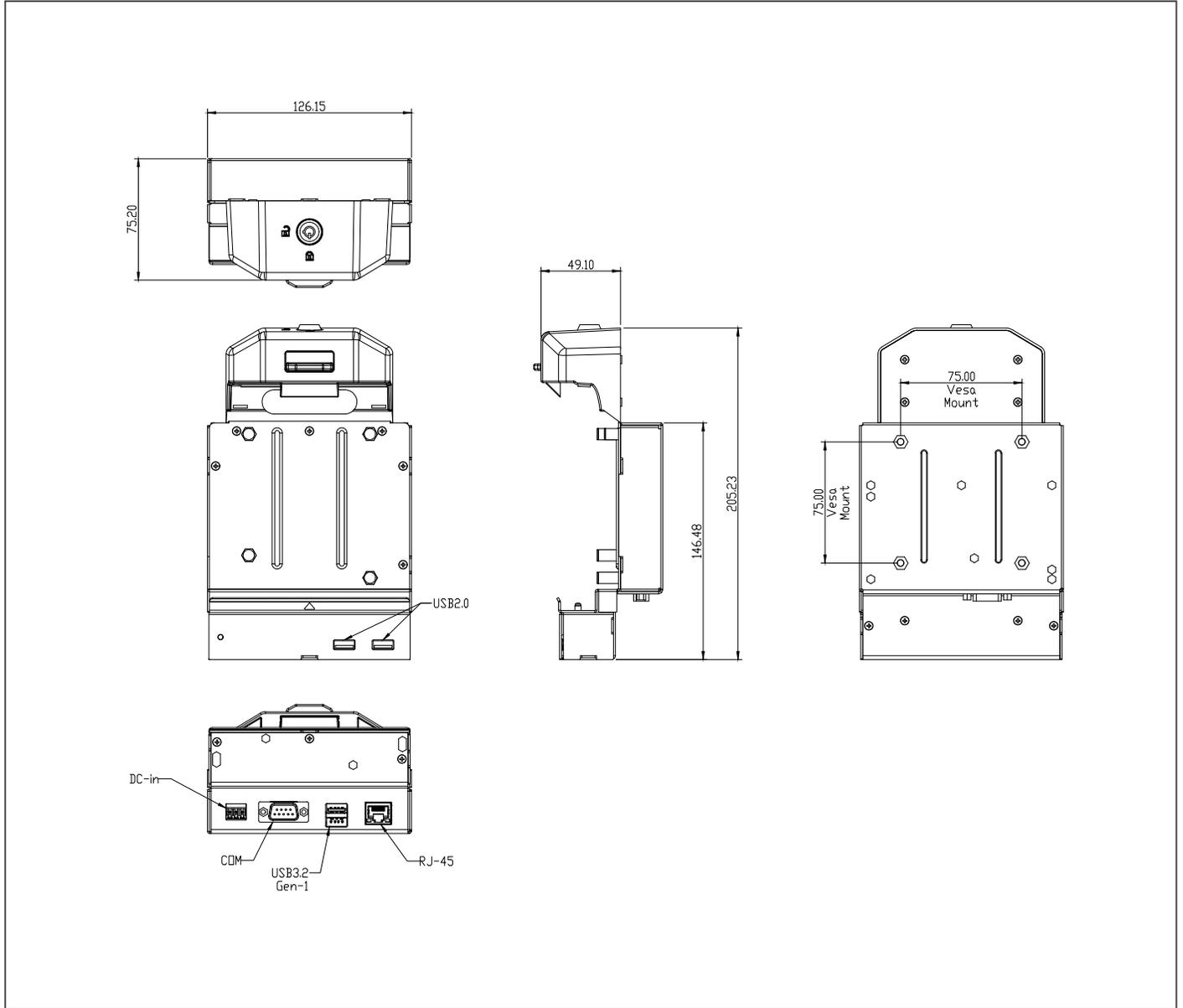


Specifications

System	
I/O	Front-facing I/Os: USB 2.0 x 2 Downward-facing I/Os: USB 3.2 Gen 1 x 2 RS-232 x 1 RJ45 GbE x 1
DC Input	Phoenix connector: DINKLE ECH381H-03P Wide Voltage Input: DC 9V to 36V Mating connector: DINKLE EC381V-03P
LED Indicator	Orange: DC in w/o Tablet Blue: DC in w/ Tablet
Others	Anti-theft lock with key & VESA mount support (75x75)
Mechanical	
Color	Black
Construction	Metal
Dimensions (W x H x D)	8.07" x 4.96" x 2.96" (205 x 126 x 75 mm)
Gross Weight	1.8 lb (820g)
Environmental	
Operating Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Storage Temperature	-22°F ~ 158°F (-30°C ~ 70°C)
ESD	Air charge: +/- 8KV Contact charge: +/- 4KV
EMC/ Safety	CE / FCC Class A / UL
Power Supply	
AC/DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 12V/ 3.34A/ 40W DC connector: DINKLE EC381V-03P
DC/DC Adapter	—

Dimension

Unit: mm



Ordering Information

- **RDS-0710-000**
Docking Station.USBx4.RS-232.RJ45.DC Connector.9-36V Input
- **RDS-0710-001**
Docking Station.USBx4.RS-232.RJ45.DC Connector.9-36V Input.W/ Stand

Packing List

- **RDS-0710**
- **125530040D**
AC-To-DC Power Adaptor, 12V, 40W
*Power cord must be purchased separately.

Optional Accessories

- **170203J000**
DC Input Cable, 2 Meters, One Side With Mating Connector: DINKLE EC381V-03P, One Side With Flying Wires

RDS-411

Rugged Docking Station for RTC-1010 / RTC-1010M



Features

- Apply on RTC-1010 / RTC-1010M
- Front-facing I/Os: USB 2.0 x 2 with Protection Cover
- Downward-facing I/Os for Easy Cable Management: USB 2.0 x 2, RS-232 x 1 (Two: Optional), RJ45 GbE x 1, DC-in Phoenix Connector x 1
- Wide Voltage Input: 9VDC ~ 36VDC
- Power Adaptor: AC Power Adaptor (Default)
- Anti-theft Lock with Key & VESA Mount Support

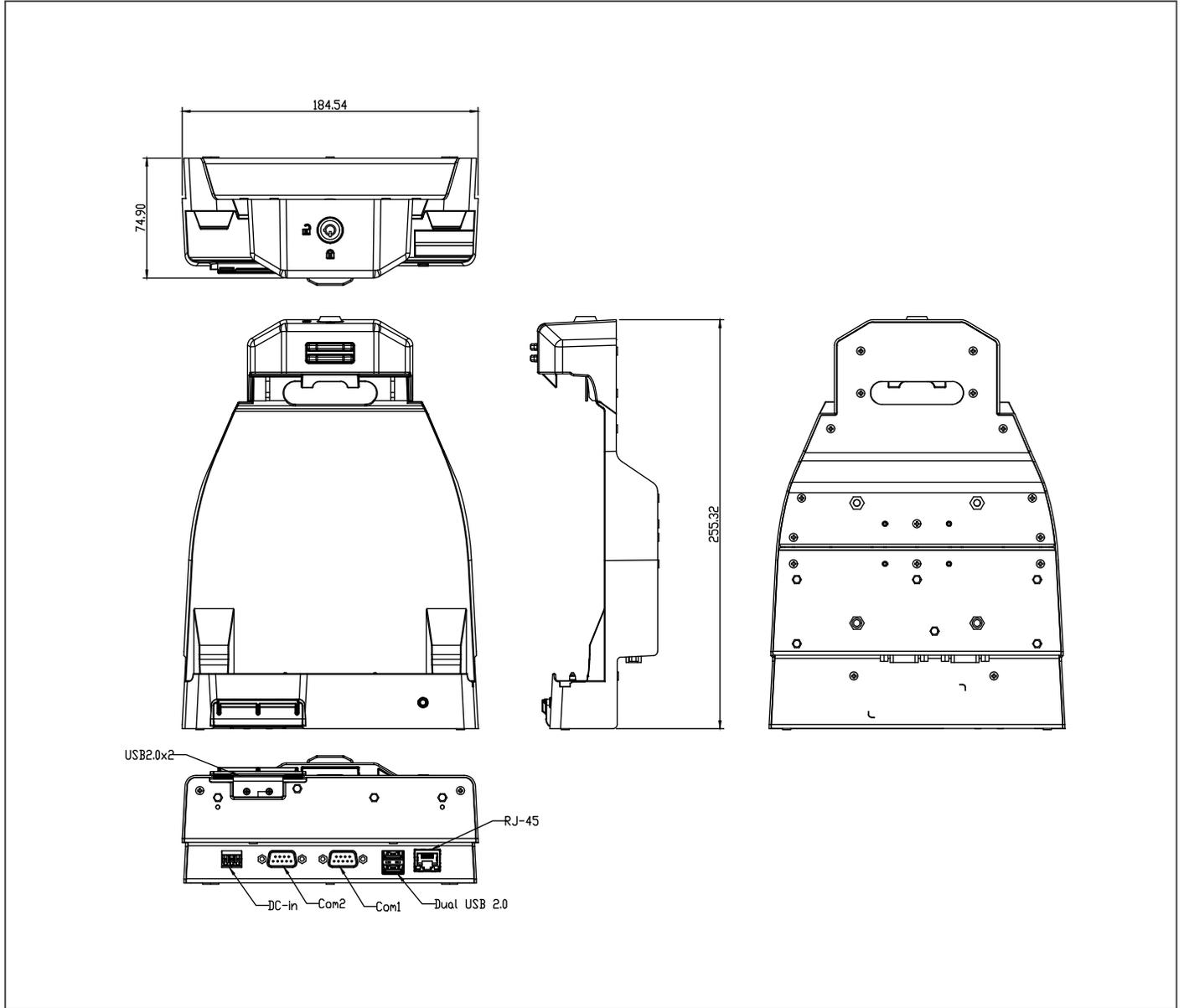


Specifications

System	
I/O	Front-facing I/Os: USB 2.0 x 2 with protection cover Downward-facing I/Os: USB 2.0 x 2 RS-232 x 1 (Two: Optional) RJ45 GbE x 1
DC Input	Phoenix connector: DINKLE ECH381H-03P Wide Voltage Input: DC 9V to 36V Mating connector: DINKLE EC381V-03P
LED Indicator	Orange: DC in w/o Tablet Blue: DC in w/ Tablet
Others	Anti-theft lock with key & VESA mount support
Mechanical	
Color	Black
Construction	PC
Dimensions (W x H x D)	10.08" x 7.28" x 2.96" (256 x 185 x 75 mm)
Gross Weight	6.17 lb (2.8 Kg)
Environmental	
Operating Temperature	32°F ~ 122°F (0°C ~ 50°C)
Storage Temperature	14°F ~ 140°F (-10°C ~ 60°C)
ESD	Air charge: +/- 8KV Contact charge: +/- 4KV
EMC/ Safety	CE / FCC Class B / UL
Power Supply	
AC/DC Adapter	AC 100 ~ 240 V, 50 ~ 60 Hz, Output: 12V/ 3.34A/ 40W DC connector: DINKLE EC381V-03P
DC/DC Adapter	—

Dimension

Unit: mm



Ordering Information

- **RDS-411-000**
Docking Station.USBx4.RS-232.RJ45.DC Connector.9-36V Input
- **RDS-411-001**
Docking Station.USBx4.RS-232.RJ45.DC Connector.9-36V Input.W/ Stand

Packing List

- **RDS-411**
 - **125530040D**
AC-To-DC Power Adaptor, 12V, 40W
- *Power cord must be purchased separately.

Optional Accessories

- **170203J000**
DC Input Cable, 2 Meters, One Side With Mating Connector: DINKLE EC381V-03P, One Side With Flying Wires.

RDS-241V

Rugged Docking Station for RTC-1200



Features

- Apply on RTC-1200
- Front-facing I/O: USB 2.0 x 2 with Protection Cover
- Downward-facing I/Os for Easy Cable Management: USB 3.2 Gen 1 x 2, RS-232 x 2 (One with 5V in Pin 9 & the Other with GPIO x 8), RJ45 GbE x 1, M12 DC-in x 1
- Wide Voltage Input: 9VDC ~ 36VDC via M12-5P Female Connector
- Power Adaptor: AC Power Adaptor (Default)
- Anti-theft lock with Key & VESA Mount Support
- External GPS and WWAN SMA Connectors

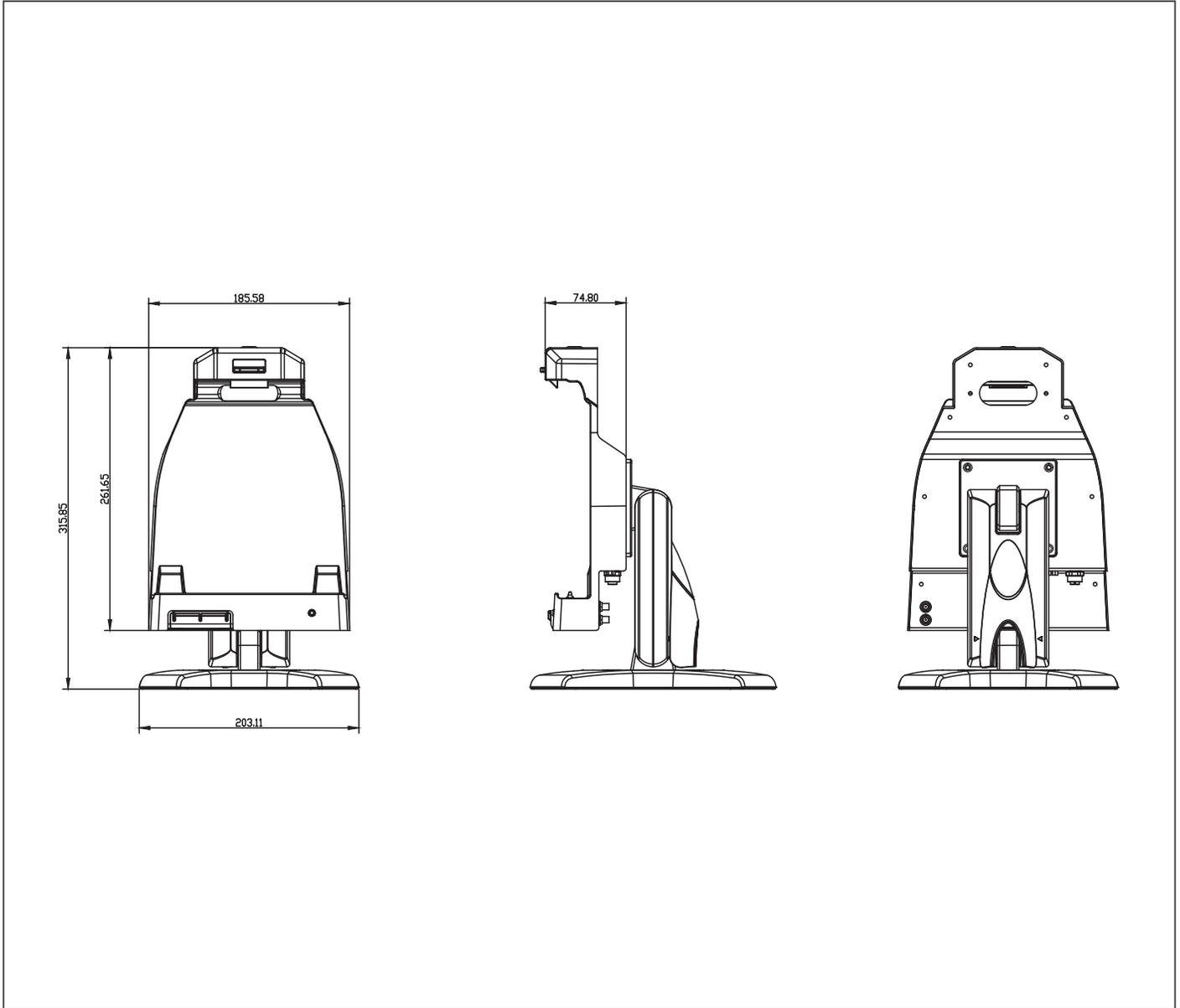


Specifications

System	
I/O	Front-facing I/Os: USB 2.0 x 2 with protection cover Downward-facing I/Os: USB 3.2 Gen 1 x 2 RS-232 x 2 (One with 5V in Pin 9 & the Other with GPIO x 8) RJ45 GbE x 1 M12 DC-in x 1 External GPS and WWAN SMA connectors
DC Input	M12 5P Female (DC 9V to 36V)
LED Indicator	Orange: DC in w/o Tablet Blue: DC in w/ Tablet
Others	Anti-theft lock with key & VESA mount support
Mechanical	
Color	Black
Construction	PC
Dimension (W x H x D)	10.28" x 6.50" x 2.96" (261 x 165 x 75 mm)
Gross Weight	6.44 lb (2.92 Kg)
Environmental	
Operating Temperature	32°F ~ 104°F (0°C ~ 40°C)
Storage Temperature	14°F ~ 122°F (-10°C ~ 50°C)
ESD	Air charge: +/- 8KV Contact charge: +/- 4KV
Certifications and Standards	CE / FCC Class B / UL
Power Supply	
AC Adapter	AC 100 ~ 240 V, 47 ~ 63 Hz Output: 19V/ 4.74A/ 90W
DC Adaptor	—

Dimension

Unit: mm



Ordering Information

Part Number	Applied Models	Stand	Expansion I/O
RDS-241V-000	For RTC-1200 Series w/ Stand	Yes	USB 2.0 x 2, USB 3.2 Gen 1 x 2, RS-232 x 2, LAN x 1, DC Connector, GPS and WWAN SMA x 2
RDS-241V-001	For RTC-1200 Series w/o Stand	No	USB 2.0 x 2, USB 3.2 Gen 1 x 2, RS-232 x 2, LAN x 1, DC Connector, GPS and WWAN SMA x 2

Packing List

- **RDS-241V**

*Power cord must be purchased separately.

Optional Accessories

- **1255300908**

AC-To-DC Power Adaptor, 19V, 90W

- **1702031830**

Power cord for USA

- **1702031831**

Power cord for Europe

▶ RTC-1010-HS-000

Hand Strap for RTC-1010/ RTC-1010M



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	232 x 92 x 30 mm

Ordering Infomation

- **RTC-1010-HS-000**
Hand Strap

▶ RTC-1010-SB-000

Shoulder Belt for RTC-1010/ RTC-1010M



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	1050 x 65 x 5 mm

Ordering Infomation

- **RTC-1010-SB-000**
Shoulder Belt, 2 Points

▶ RTC-1010-VMP-000

VESA Mount Plate for RTC-1010M



Specifications

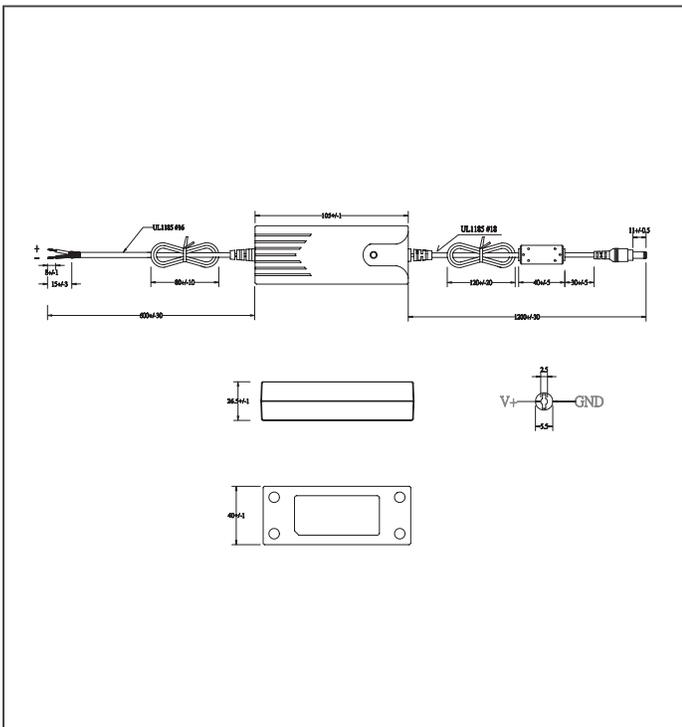
Mechanical	
Color	Black
Dimensions (W x H x D)	275.6 x 191.7 x 25 mm

Ordering Information

- **RTC-1010-VMP-000**
VESA Mount Plate

▶ 1255900363

DC-To-DC Power Adapter, Flying Wires for RTC-1010/ RTC-1010M



Specifications

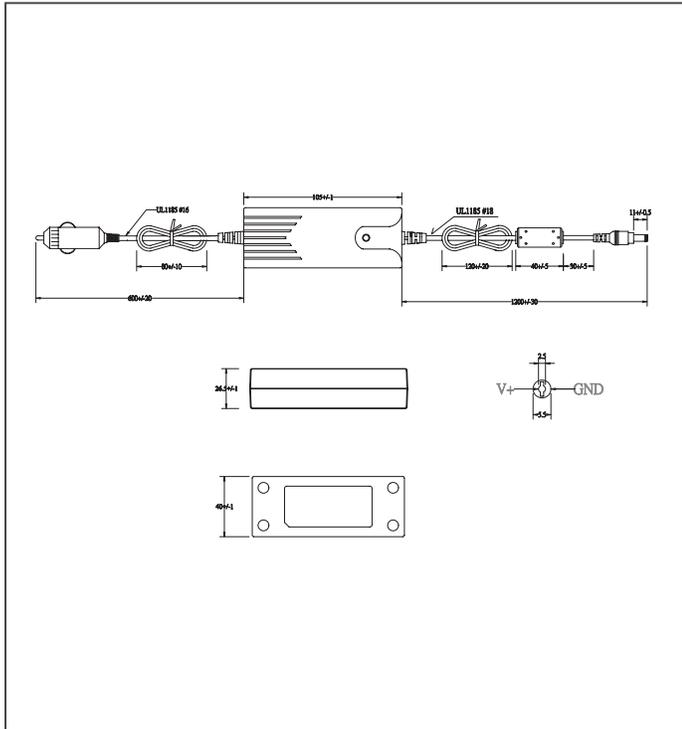
Mechanical	
Color	Black
Dimensions (W x H x D)	Adapter case: 40 x 105 x 26.5 mm Plug side length: 1200 ± 30 mm Flying Wires side length: 600 ± 30 mm Total length: 1905 ± 60 mm

Ordering Information

- **1255900363**
DC-To-DC Power Adapter, 12V to 36V Input, 12V/3A Output, One End-DC Jack, One End-Two Flying Wires

1255900364

DC-To-DC Power Adapter, Cigarette Plug for RTC-1010/ RTC-1010M



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	Adapter case: 40 x 105 x 26.5 mm Plug side length: 1200 ± 30 mm Cigarette Plug side length: 600 ± 50 mm Total length: 1905 ± 50 mm

Ordering Information

- **1255900364**
DC-To-DC Power Adapter, 12V to 36V Input, 12V/3A Output, One End-DC Jack, One End-Cigarette Plug

▶ RTC-1200HSP01-000

Hand Strap for RTC-1200



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	260 x 92 x 30 mm

Ordering Information

- **RTC-1200HSP01-000**
Rotating Hand-Strap

▶ RTC-1200BLT01-000

Shoulder Belt for RTC-1200



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	1050 x 65 x 5 mm

Ordering Infomation

- **RTC-1200BLT01-000**
Shoulder Belt, 2 Points

▶ RTC-1200BLT02-000

Shoulder Belt for RTC-1200



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	450 x 350 x 50 mm

Ordering Infomation

- **RTC-1200BLT02-000**
Shoulder Belt 4 Points

▶ RTC-1200BKT01-000

VESA Mount Bracket for RTC-1200



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	180 x 203.3 x 45.4 mm

Ordering Information

- **RTC-1200BKT01-000**
Mounting Bracket (VESA/RAM)

▶ RTC-1200SPC01-000

2-in-1 Protective Case for RTC-1200



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	310.3 x 204 x 36.5 mm

Ordering Information

- **RTC-1200SPC01-000**
2-in-1 Protective Case

▶ RBC-1200-000

4-bay Battery Charger for RTC-1010/ RTC-1010M, RTC-1200



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	140.5 x 68.4 x 121.87 mm
Power Supply	
AC/DC Adapter	AC power input:100-240V, 50Hz-60Hz, 65W, DC power output: 19V/3.42A

Ordering Infomation

- **RBC-1200-000**
4-bay Battery Charger

▶ RTC-1200BAT01-000

Battery Pack for RTC-1010/ RTC-1010M, RTC-1200



Specifications

Mechanical	
Color	Black
Dimensions (W x H x D)	71.5 x 110 x 13.3 mm
Capacity	
Capacity	14.4V, 2270mAh, 32.7W

Ordering Infomation

- **RTC-1200BAT01-000**
Battery Pack, 14.4V, 2270mAh, 2 pcs/Box

* This item can be shipped by air based on dangerous goods shipment with extra shipping charge.

02

► RISC Boards

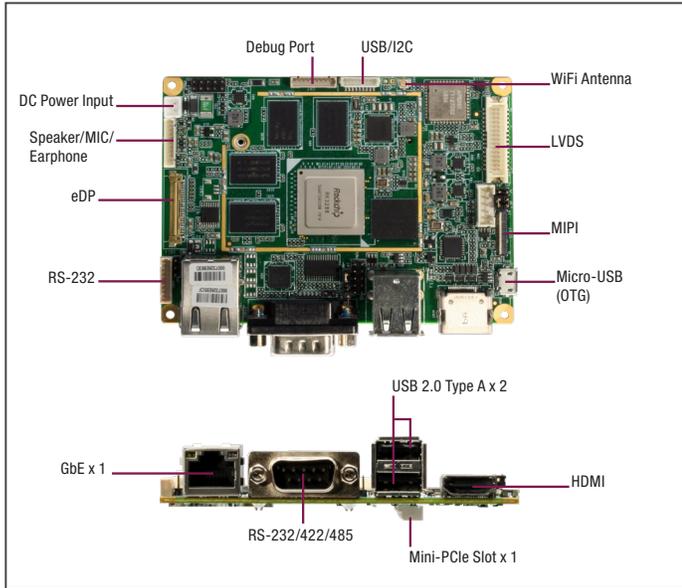


02



RICO-3288

Pico-ITX Fanless Board with Rockchip ARM Cortex™-A17 Quad-core Processor



Features

- Rockchip RK3288
- Onboard DDR3L 2GB/4GB (Optional)
- Onboard eMMC 16GB and Micro-SD Card Slot
- HDMI (1.4), eDP, LVDS, MIPI
- WiFi 802.11 a/b/g/n/ac, BT V4.2, GPS (Optional), NFC (Optional)
- GbE: RJ45 x 1
- USB 2.0: Micro-USB OTG x 1, Type A x 2, Pin Header x 1
- RS-232/422/485 x 1, RS-232 x 1
- 8-bit GPIO, I2C, mPCIe Slot x 1
- +12V DC Input
- OS Support: Android 9.0 / Debian
- Small Board Size: 100mm x 72mm (PICO-ITX)



Specifications

System	
Form Factor	Pico-ITX (100mm x 72mm)
CPU	Rockchip RK3288 ARM Cortex™-A17 Quad-core 1.6 GHz
GPU	Mali-T764
Graphics	Video Decode: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, AVS, VC-1, VP8, MVC Video Encode: H.264 (BP@level4.0, MP@level4.0, HP@level4.0), MVC and VP8
Memory Capacity	Onboard DDR3L 2GB/4GB (Optional)
Storage/SSD	16GB eMMC and Micro-SD card
Operating System	Android 9.0 / Debian
Kernel	Kernel 4.4
Watchdog Timer	Integrated
Power Requirement	+12V DC input, Optional 7.4V battery
Power Consumption (Typical)	0.6A@12V, full load, Quad-core CPU
Dimension	3.94" x 2.84" (100mm x 72mm)
Gross Weight	0.44 lb (0.2 Kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)(-20°C~60°C: Optional)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE/FCC
Display	
HDMI	HDMI (1.4) up to 4K x 2K @60Hz
eDP	Up to 2560 x 1440 @60Hz
LVDS	Support 18/24-bit up to 1920 x 1080 @60Hz
MIPI	Up to 2560 x 1440 @60Hz
RF Function	
WiFi	802.11 a/b/g/n/ac
BT	Bluetooth V4.2 + EDR
I/O	
Ethernet	GbE x 1
USB Port	Micro-USB OTG x 1 USB 2.0 Type A x 2 USB2.0 Pin header x 1 (Integrated)
Serial Port	RS-232/422/485 x 1 RS-232 Pin header x 1 Debug port pin header x 1
Audio	2.5W (by 4Ω) Speaker/ Microphone/ Earphone
GPIO	8-bit (4-in, 4-out)
Expansion Slot	Full-size mini-PCIe slot x 1 (For 3G/4G card)
SIM Slot	Nano-SIM
SD Socket	Support Micro-SD card
Camera	—

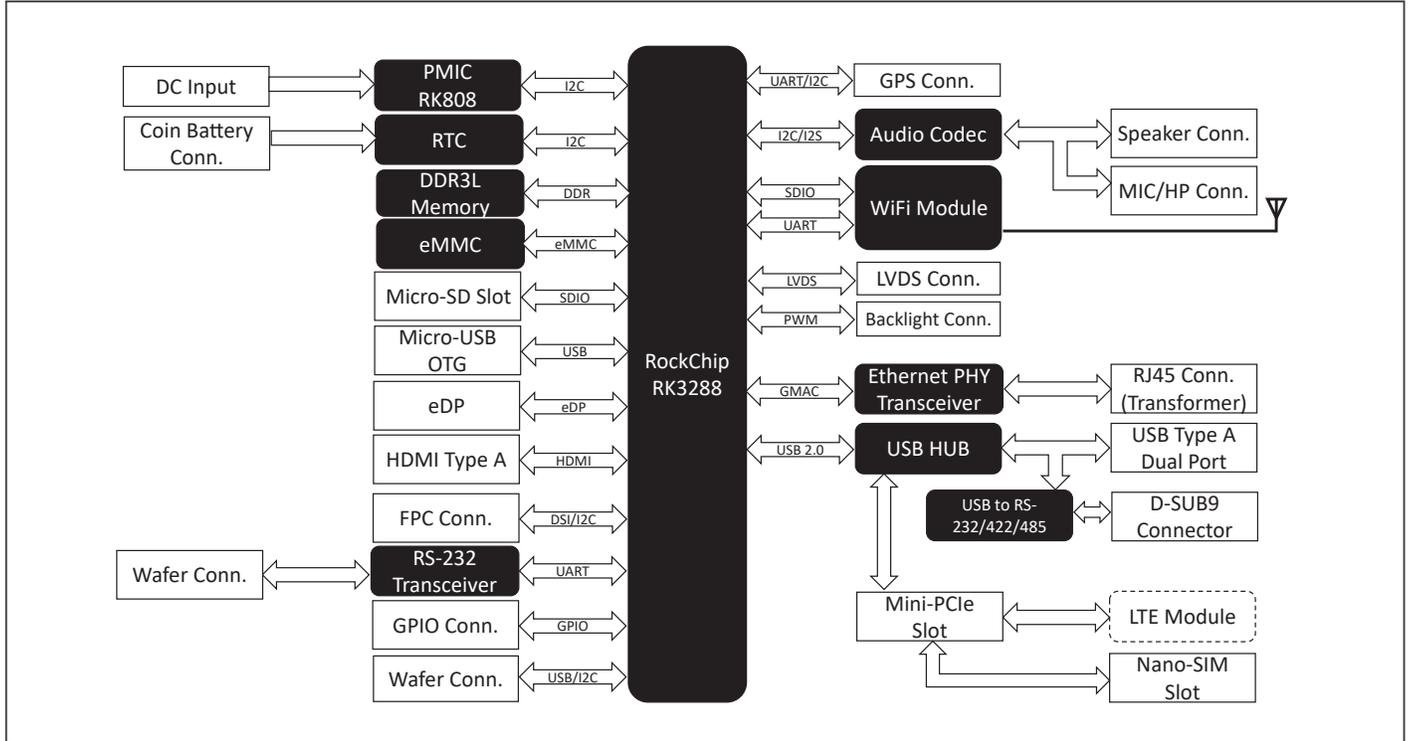
Packing List

- RICO-3288
- MB Power Cable
- RTC Battery

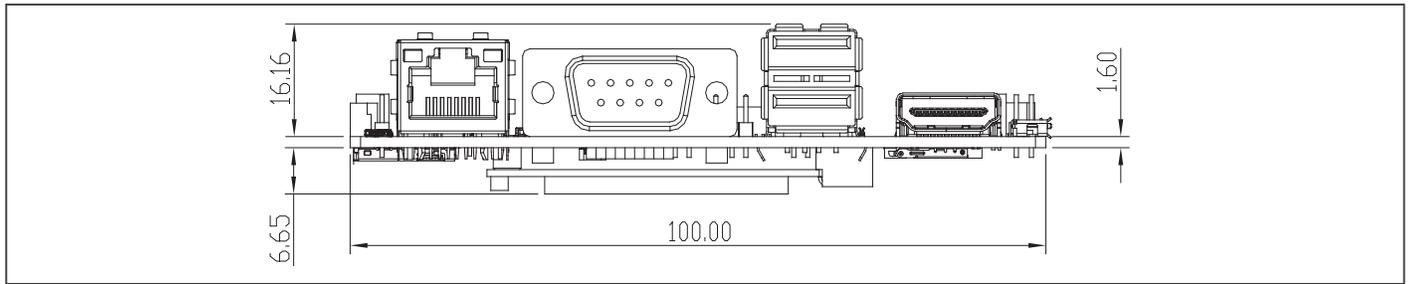
Optional Accessories

Part Number	Description	Qty.
1701090150	COM Cable, Length 15cm	1
125530060Y	12V/60W Power Adapter	1
9697T41704-S	NFC Board	1
9697T47700-D	GPS & Battery Charger Board	1

Block Diagram Unit: mm



Dimension Unit: mm

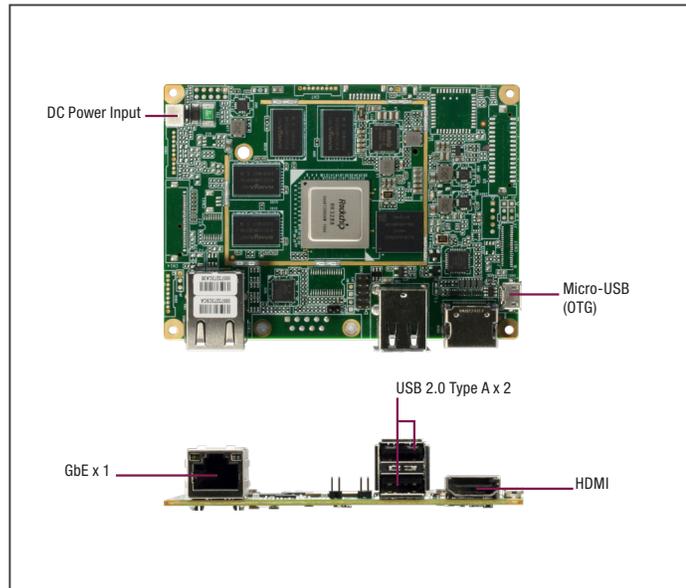


Ordering Information

Part Number	CPU	RAM	Storage	LAN	RS-232	USB	Display	WiFi & BT	3G/LTE Slot
RICO-3288-A11-0001	ARM Cortex-A17 1.6GHz	2GB DDR3L	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI) 1 (eDP) 1 (LVDS) 1 (MIPI)	802.11 a/b/g/n/ac BT 4.2 + EDR	1 (mPCle Slot)
RICO-3288-A11-0002 (MOQ: 50)	ARM Cortex-A17 1.6GHz	4GB DDR3L	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI) 1 (eDP) 1 (LVDS) 1 (MIPI)	802.11 a/b/g/n/ac BT 4.2 + EDR	1 (mPCle Slot)
RICO-3288W1-A11-0001 (-20°C~60°C)	ARM Cortex-A17 1.6GHz	2 GB DDR3L	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI) 1 (eDP) 1 (LVDS) 1 (MIPI)	802.11 a/b/g/n/ac BT 4.2 + EDR	1 (mPCle Slot)

RICO-3288MINI

Pico-ITX Fanless Board with Rockchip ARM Cortex™-A17 Quad-core Processor



Features

- Rockchip RK3288
- Onboard DDR3L 2GB
- Onboard eMMC 16GB
- HDMI (1.4): Up to 4K x 2K @ 60Hz
- GbE: RJ45 x 1
- USB 2.0: Micro-USB OTG x 1, Type A x 2
- 8-bit GPIO
- +12V DC Input
- OS Support: Android 9.0 / Debian
- Small Board Size: 100mm x 72mm (PICO-ITX)



Specifications

System	
Form Factor	Pico-ITX (100mm x 72mm)
CPU	Rockchip RK3288 ARM Cortex™-A17 Quad-core 1.6 GHz
GPU	Mali-T764
Graphics	Video Decode: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, AVS, VC-1, VP8, MVC Video Encode: H.264 (BP@level4.0, MP@level4.0, HP@level4.0), MVC and VP8
Memory Capacity	Onboard DDR3L 2GB
Storage/SSD	16GB eMMC
Operating System	Android 9.0 / Debian
Kernel	Kernal 4.4
Watchdog Timer	Integrated
Power Requirement	+12V DC input
Power Consumption (Typical)	0.6A@12V, full load, Quad-core CPU
Dimension	3.94" x 2.84" (100mm x 72mm)
Gross Weight	0.22 lb (0.1 Kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE/FCC
Display	
HDMI	HDMI (1.4) up to 4K x 2K @60Hz
eDP	—
LVDS	—
MIPI	—
RF Function	
WiFi	—
BT	—
I/O	
Ethernet	GbE x 1
USB Port	Micro-USB OTG x 1 USB 2.0 Type A x 2
Serial Port	—
Audio	—
GPIO	8-bit (4-in, 4-out)
Expansion Slot	—
SIM Slot	—
SD Socket	—
Camera	—

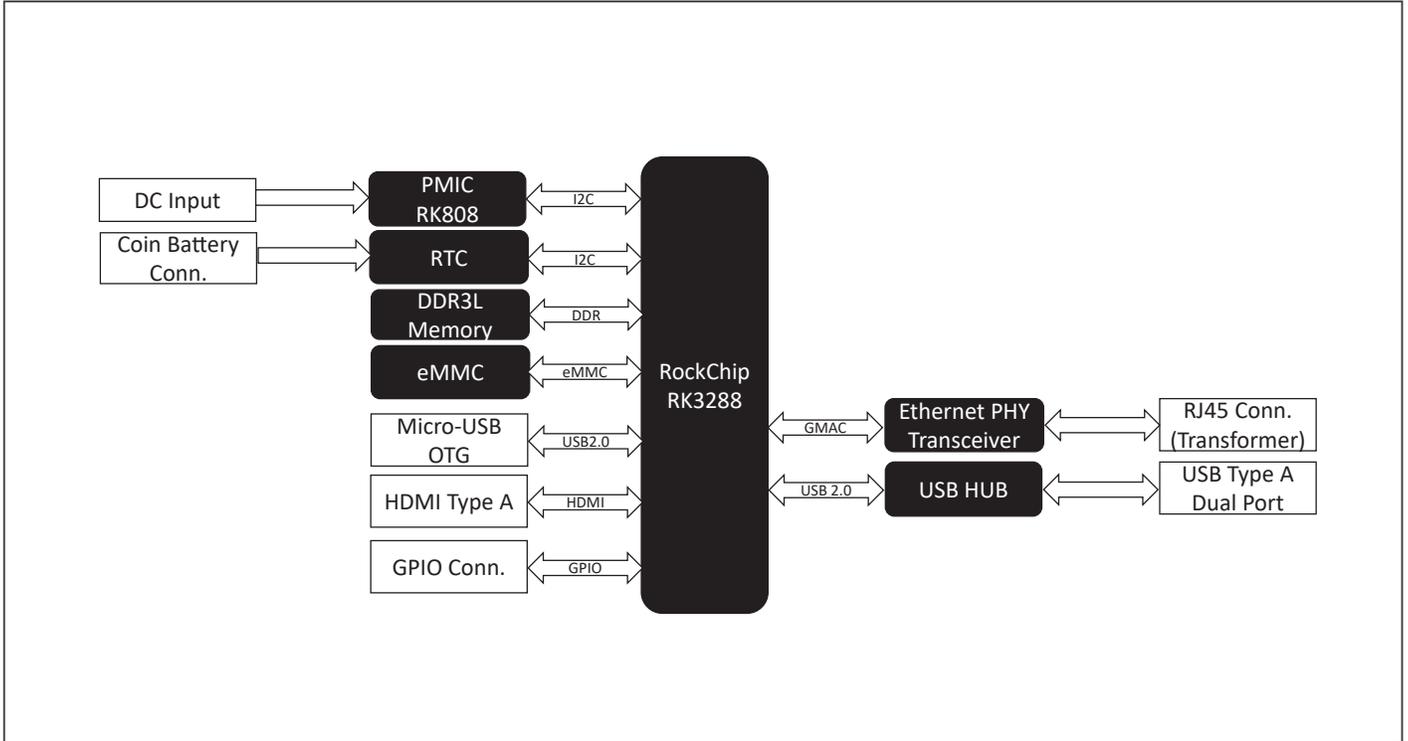
Packing List

- RICO-3288MINI
- MB Power Cable
- RTC Battery

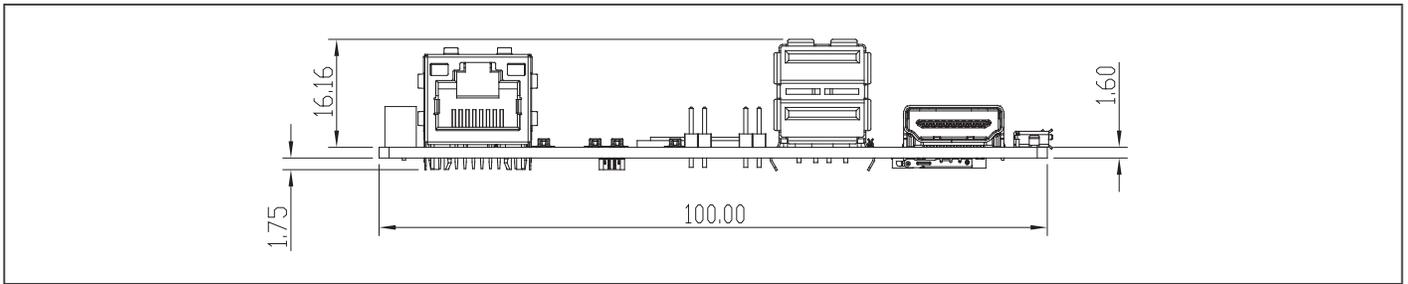
Optional Accessories

Part Number	Description	Qty.
125530060Y	12V/60W Power Adapter	1

Block Diagram Unit: mm



Dimension Unit: mm

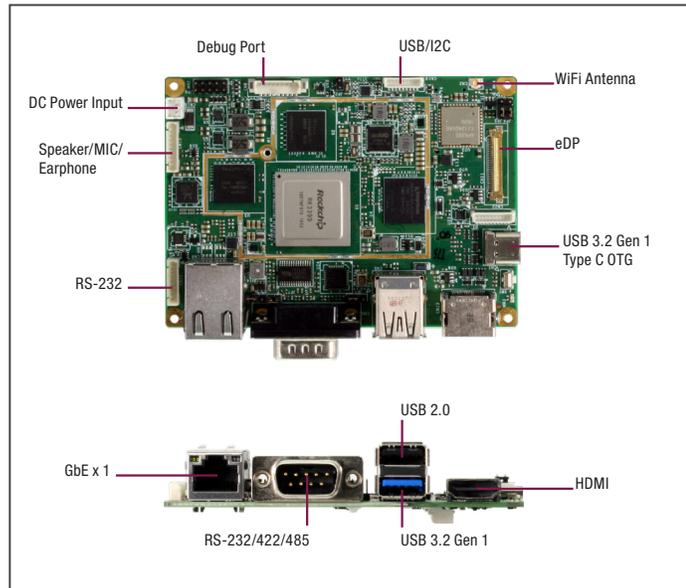


Ordering Information

Part Number	CPU	RAM	Storage	LAN	RS-232/422/485	USB	Display	WiFi & BT	3G/LTE Slot
RICO-3288MINI-A11-0001	ARM Cortex-A17 1.6GHz	2GB DDR3L	16GB eMMC	GbE x 1	—	3	1 (HDMI)	—	—

RICO-3399

Pico-ITX Fanless Board with Rockchip ARM Cortex-A72 Dual-core and Cortex-A53 Quad-core Processor



Features

- Rockchip RK3399
- Onboard LPDDR3 2GB/4GB (Optional)
- Onboard eMMC 16GB and Micro-SD Card Slot
- HDMI (2.0), eDP
- WiFi 802.11 a/b/g/n/ac, BT V4.2, GPS (Optional), NFC (Optional)
- GbE: RJ45 x 1
- USB 3.2 Gen 1: OTG x 1, Type A x 1
- USB 2.0: Type A x 1, Pin Header x 1
- RS-232/422/485 x 1, RS-232 x 1
- 8-bit GPIO, I2C, mPCIe Slot x 1
- +12V DC Input
- OS Support: Android 8.1 / Debian
- Small Board Size: 100mm x 72mm (PICO-ITX)



Specifications

System	
Form Factor	Pico-ITX
CPU	Rockchip RK3399 Cortex™-A72 Dual-core 1.8GHz and Cortex™-A53 Quad-core 1.4GHz
GPU	Mali-T864
Graphics	Video Decode: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, H.265, VC-1, VP8, VP9, MVC Video Encode: H.264 UP to HP@level4.1, MVC and VP8
Memory Capacity	Onboard LPDDR3 2GB/4GB (Optional)
Storage/SSD	16GB eMMC and Micro-SD card
Operating System	Android 8.1 / Debian
Kernel	Kernel 4.4
Watchdog Timer	Integrated
Power Requirement	+12V DC input
Power Consumption (Typical)	0.6A@12V, full load, Hexa-core CPU
Dimension	3.94" x 2.84" (100 mm x 72 mm)
Gross Weight	0.44 lb (0.2 Kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE/FCC
Display	
HDMI	HDMI (2.0) up to 4K x 2K @60Hz
eDP	Up to 4K x 2K @60Hz
LVDS	—
MIPI	—
RF Function	
WiFi	802.11 a/b/g/n/ac
BT	Bluetooth V4.2 + EDR

I/O	
Ethernet	GbE x 1
USB Port	USB 3.2 Gen 1 Type C OTG x 1 USB 3.2 Gen 1 (Bottom)/USB 2.0 (Top) dual port x 1 USB 2.0 Pin Header x 1 (Integrated)
Serial Port	RS-232/422/485 x 1 RS-232 Pin header x 1 Debug port pin header x 1
Audio	2.5W (by 4Ω) Speaker/ Microphone/ Earphone
GPIO	8-bit (4-in, 4-out)
Expansion Slot	Full-size mini-PCIe slot x 1 (For 3G/4G card)
SIM Slot	Nano-SIM
SD Socket	Support Micro-SD card
Camera	—

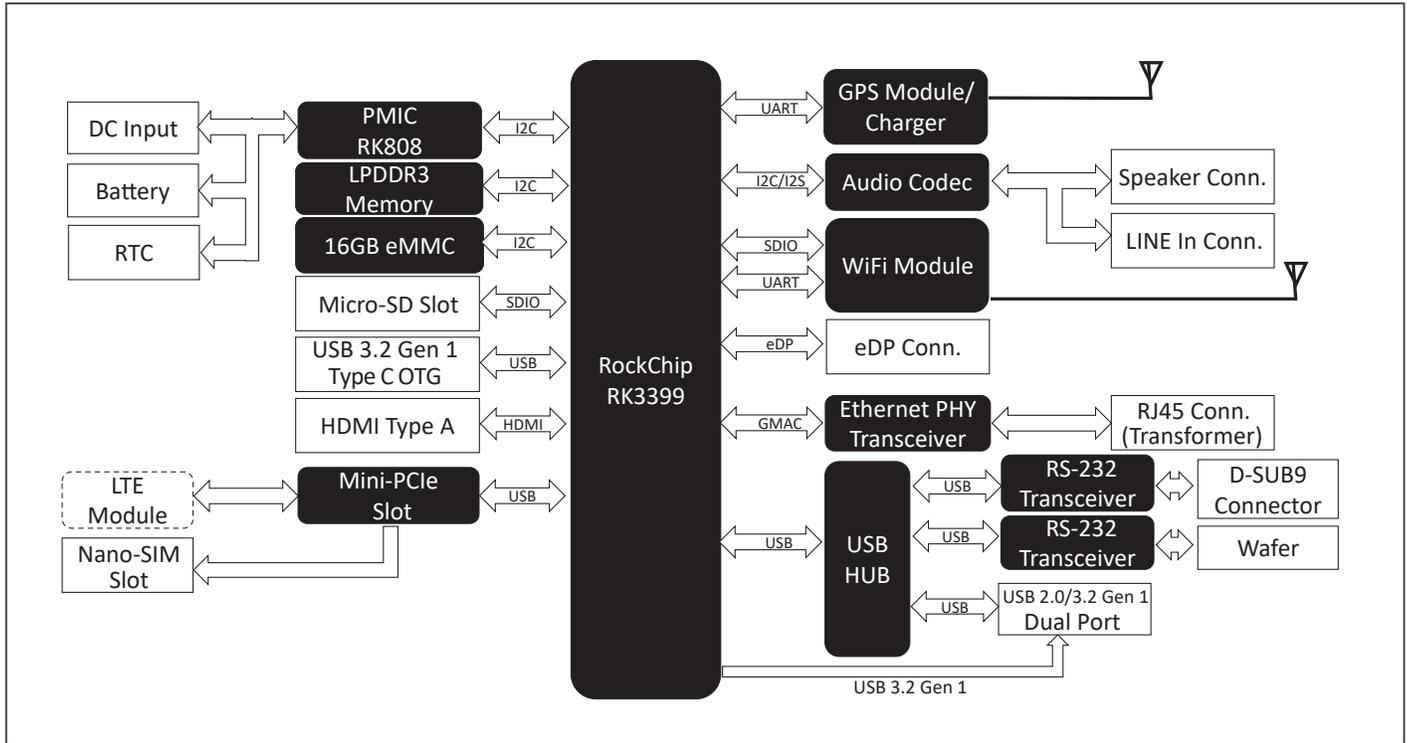
Packing List

- RICO-3399
- MB Power Cable
- RTC Battery

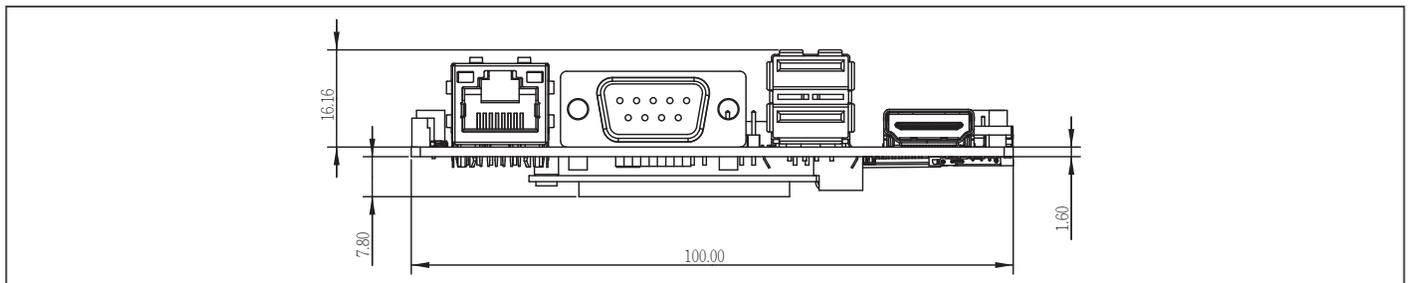
Optional Accessories

Part Number	Description	Qty.
1701090150	COM Cable, Length 15cm	1
125530060Y	12V 60W Power Adapter	1
9697T41703-S	NFC Board	1
9697T47700-D	GPS & Battery Charger Board	1

Block Diagram Unit: mm



Dimension Unit: mm



Ordering Information

Part Number	CPU	RAM	Storage	LAN	RS-232	USB	Display	WiFi & BT	3G/LTE Slot
RICO-3399-A10-0001	ARM Dual Cortex-A72 + Quad Cortex-A53	2GB LPDDR3	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI) 1 (eDP)	802.11 a/b/g/n/ac BT 4.2 + EDR	1 (mPCIe Slot)
RICO-3399-A10-0002	ARM Dual Cortex-A72 + Quad Cortex-A53	2GB LPDDR3	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI)	—	—
RICO-3399-A10-0003 (MOQ: 50)	ARM Dual Cortex-A72 + Quad Cortex-A53	4GB LPDDR3	16GB eMMC	GbE x 1	1 (RS-232) 1 (RS-232/422/485)	4	1 (HDMI) 1 (eDP)	802.11 a/b/g/n/ac BT 4.2 + EDR	1 (mPCIe Slot)

03



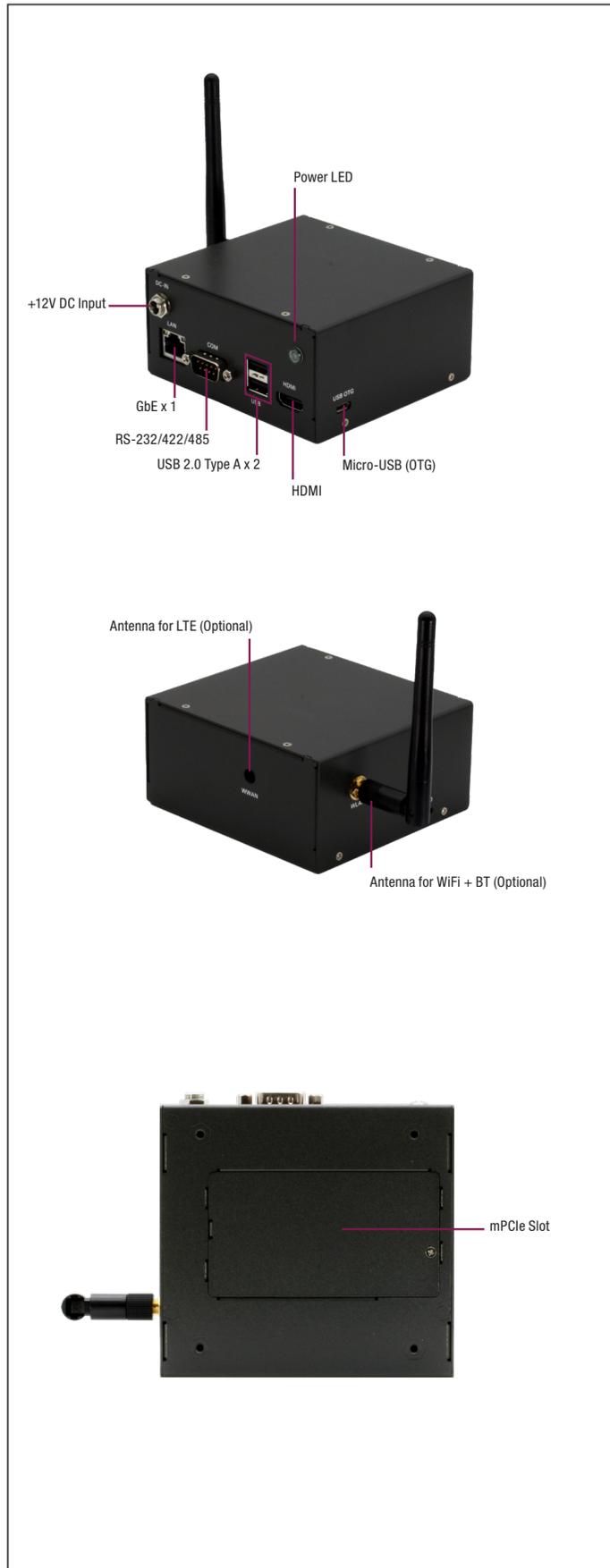
► RISC Boxes



03

BOXER-RK88

Fanless Embedded Box PC with Rockchip RK3288



Features

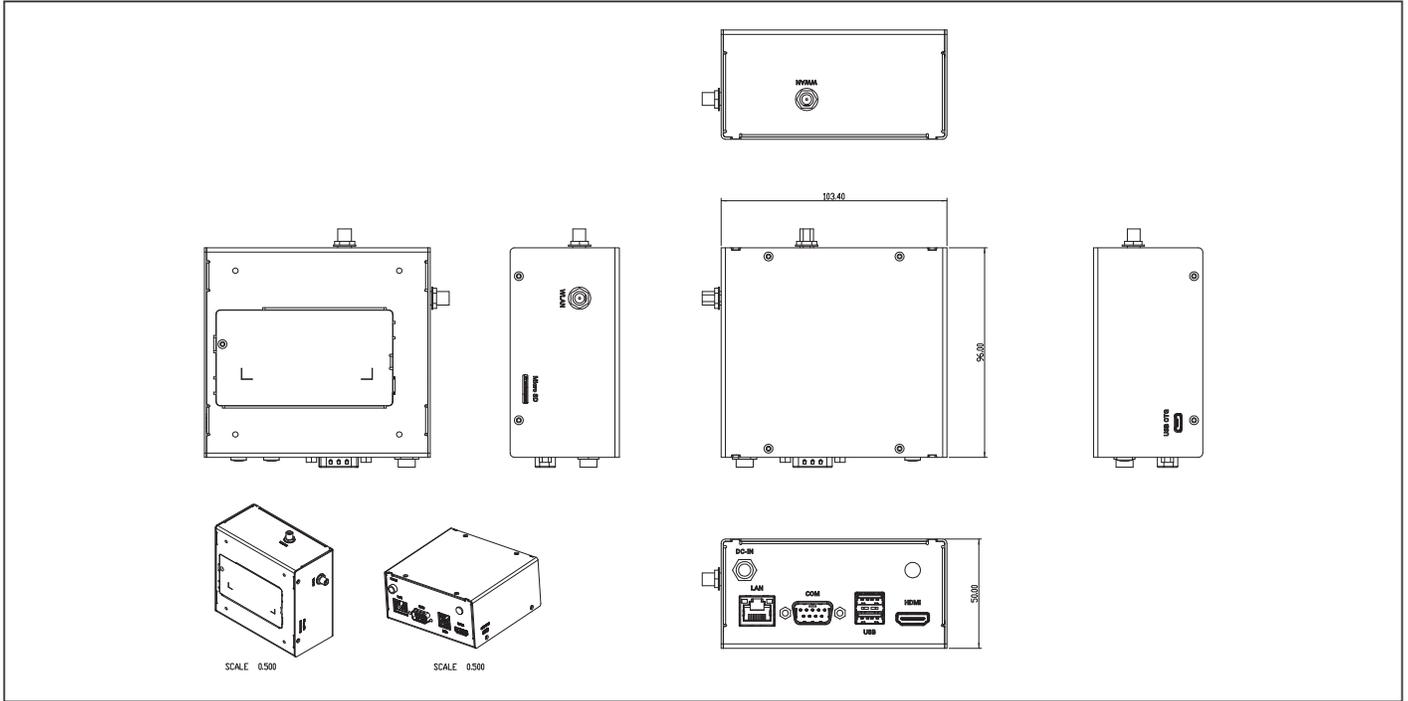
- Rockchip RK3288
- DDR3L 2GB/4GB (Optional)
- eMMC 16GB and Micro-SD Card Slot
- HDMI (1.4) Port x 1
- WiFi 802.11 b/g/n, BT V4.2
- GbE: RJ45 x 1
- USB 2.0: Micro-USB OTG x 1, Type A x 2
- RS-232/422/485 x 1, RS-232 x 1 (Optional)
- mPCIe Slot x 1
- +12V DC Input
- OS Support: Android 9.0
- Compact Size (W x D x H): 103.4 mm x 96 mm x 50 mm

Specifications

System	
CPU	Rockchip RK3288 ARM Cortex™-A17 Quad-core 1.6GHz
GPU	Mali-T764
Chipset	—
Graphics	Video Decode: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, AVS, VC-1, VP8, MVC Video Encode: H.264 (BP@level4.0, MP@level4.0, HP@level4.0), MVC and VP8
System Memory	DDR3L 2GB/4GB (Optional)
Display Interface	HDMI (1.4)
Storage/SSD	16GB eMMC and Micro-SD card
I/O	Micro-SD Card Slot x 1 HDMI (1.4) Port x 1 Antenna Connector for WiFi 802.11 b/g/n, BT V4.2 Antenna Connector for LTE (Optional) GbE: RJ45 x 1 USB 2.0: Micro-USB OTG x 1, Type A x 2 RS-232/422/485 x 1, RS-232 x 1 (Optional)
Expansion	mPCIe Slot x 1 for LTE module
Indicator	Power LED x 1
OS Support	Android 9.0
Power Supply	
Power Requirement	+12V DC input
Mechanical	
Mounting	VESA mount, 75mm x 75mm
Dimension (W x D x H)	4.07" x 3.78" x 1.97" (103.4 mm x 96 mm x 50 mm)
Gross Weight	1.1 lb (0.5 Kg)
Net Weight	0.66 lb (0.3 Kg)
Environmental	
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Storage Humidity	0% ~ 90% relative humidity, non-condensing
Anti-Vibration	—
Certification	CE/FCC/IC

Dimension

Unit: mm



Packing List

- BOXER-RK88

Optional Accessories

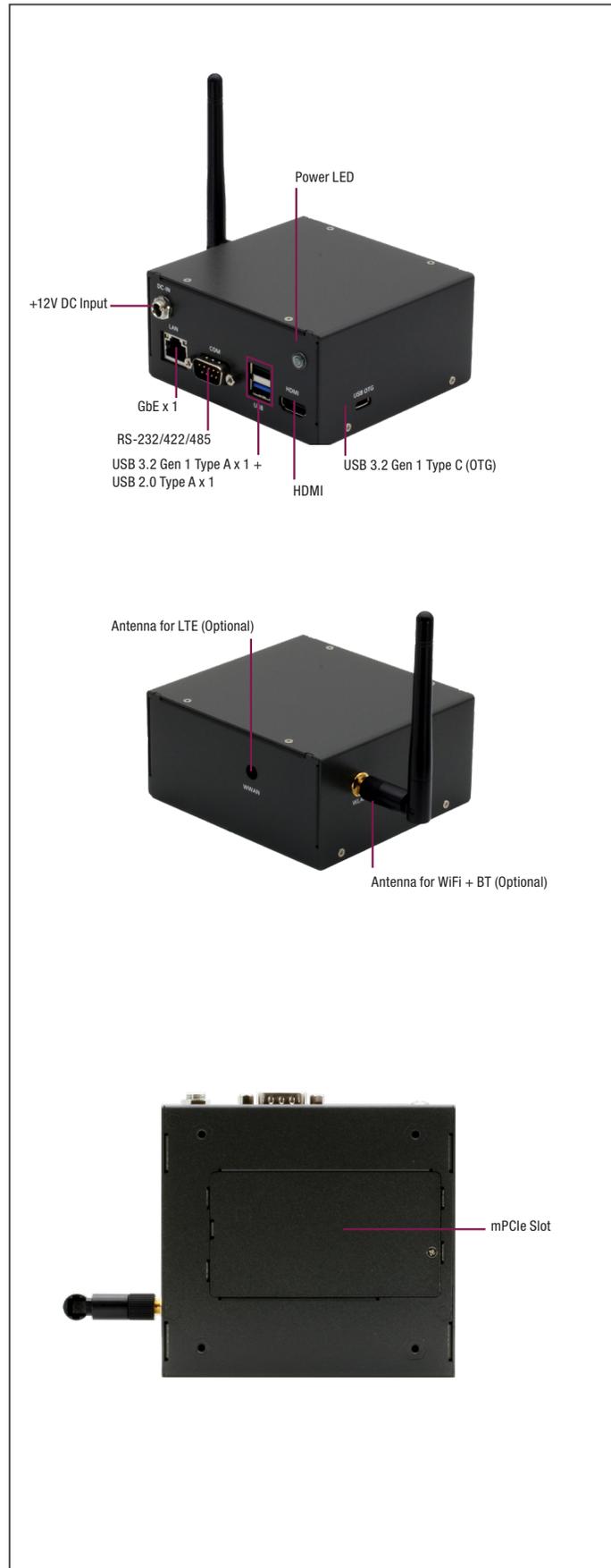
- **125530060Y**
12V / 60W Power Adapter
- **175990001X**
WiFi 2.4GHz, External Antenna
- **9741EG25G0**
EG25-G, W/ SIM Card Holder, RF Cable, External Antenna
- **M04BIBX000**
Wall-mount Plate

Ordering Information

Part Number	CPU	RAM	Storage	LAN	RS-232	USB	Display	WiFi & BT	3G/LTE Slot
BOXER-RK88-A11-0001	ARM Cortex-A17 1.6GHz	2GB DDR3L	16GB eMMC	GbE x 1	1 (RS-232/422/485)	3	1 (HDMI)	802.11 b/g/n BT 4.2 + EDR	1 (mPCIe Slot)

BOXER-RK99

Fanless Embedded Box PC with Rockchip RK3399



Features

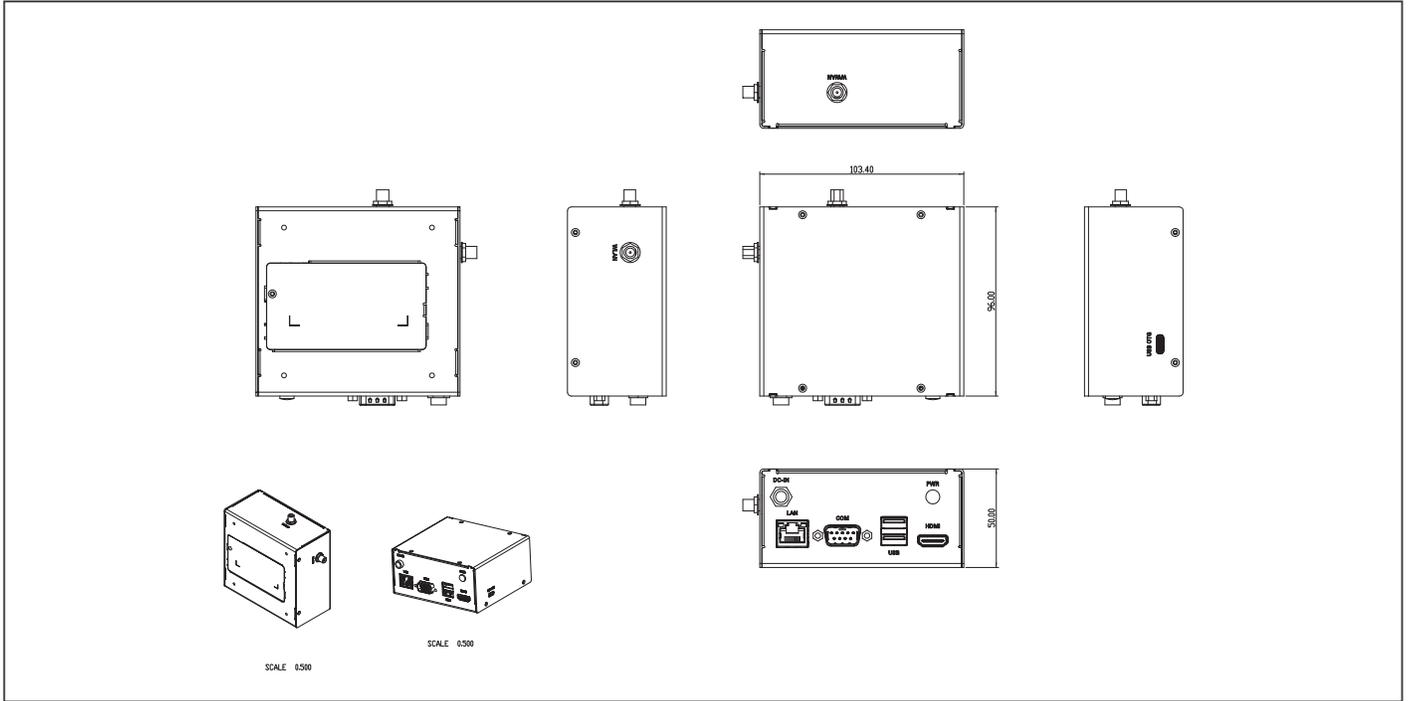
- Rockchip RK3399
- LPDDR3 2GB/4GB (Optional)
- eMMC 16GB and Micro-SD Card Slot
- HDMI (2.0) Port x 1
- WiFi 802.11 b/g/n, BT V4.2
- GbE: RJ45 x 1
- USB 3.2 Gen 1: Type C OTG x 1, Type A x 1
- USB 2.0: Type A x 1
- RS-232/422/485 x 1, RS-232 x 1 (Optional)
- mPCIe Slot x 1
- +12V DC Input
- OS Support: Android 8.1
- Compact Size (W x D x H): 103.4 mm x 96 mm x 50 mm

Specifications

System	
CPU	Rockchip RK3399 ARM Cortex™-A72 Dual-core 1.8GHz and Cortex™-A53 Quad-core 1.4GHz
GPU	Mali-T864
Chipset	—
Graphics	Video Decode: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, H.265, VC-1, VP8, VP9, MVC Video Encode: H.264 UP to HP@level4.1, MVC and VP8
System Memory	LPDDR3 2GB/4GB (Optional)
Display Interface	HDMI (2.0) up to 4K x 2K @ 60Hz
Storage/SSD	16GB eMMC and Micro-SD card
I/O	Micro-SD Card Slot x 1 HDMI (2.0) Port x 1 Antenna Connector for WiFi 802.11 b/g/n, BT V4.2 Antenna Connector for LTE (Optional) GbE: RJ45 x 1 USB 3.2 Gen 1: Type C OTG x 1, Type A x 1 USB 2.0: Type A x 1 RS-232/422/485 x 1, RS-232 x 1 (Optional)
Expansion	mPCIe Slot x 1 for LTE module
Indicator	Power LED x 1
OS Support	Android 8.1
Power Supply	
Power Requirement	+12V DC input
Mechanical	
Mounting	VESA mount, 75mm x 75mm
Dimension (W x D x H)	4.07" x 3.78" x 1.97" (103.4 mm x 96 mm x 50 mm)
Gross Weight	1.1 lb (0.5 Kg)
Net Weight	0.66 lb (0.3 Kg)
Environmental	
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Storage Humidity	0% ~ 90% relative humidity, non-condensing
Anti-Vibration	—
Certification	CE/FCC/IC

Dimension

Unit: mm



Packing List

- BOXER-RK99

Optional Accessories

- **125530060Y**
12V / 60W Power Adapter
- **175990001X**
WiFi 2.4GHz, External Antenna
- **9741 EG25G0**
EG25-G, W/ SIM Card Holder, RF Cable, External Antenna
- **M04BIBX000**
Wall-mount Plate

Ordering Information

Part Number	CPU	RAM	Storage	LAN	RS-232	USB	Display	WiFi & BT	3G/LTE Slot
BOXER-RK99-A10-0001	ARM Dual Cortex-A72 + Quad Cortex-A53	2GB LPDDR3	16GB eMMC	GbE x 1	1 (RS-232/422/485)	3	1 (HDMI)	802.11 a/b/g BT4.2 + EDR	1 (mPCIe Slot)



2022

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