

# ICS-R570

## IP40 Fanless 1U 19" Rackmount Fanless Railway Security Appliance with AMD Ryzen™ Embedded CPU



Images are for reference only. See ordering information for SKU details.

## ■ Features

- AMD Ryzen™ Embedded V1404 with Radeon™ Vega 8 Graphics
- 6x 2.5GbE LAN M12 X-coded with one pair of LAN bypass
- 2x DDR4 SODIMM w/ECC, up to 32GB, TPM 2.0 onboard
- 1x Console (RJ45), 3x USB 3.2, 8x isolated RS232/422/485, 6x isolated DIO, OOB, 2x HDMI, 1x GPS with ADR/UDR
- Wide operating temperature -40°C ~ 75°C
- Compliance with MIL-STD-810G, EN50155, EN45545-2, EN50121-3-2, EN50121-4, EN50125-3

## ■ Specifications

### Processor System

CPU	AMD Ryzen™ Embedded V1404I
Frequency	Up to 3.6GHz
Core Number	4
BIOS	AMI SPI Flash BIOS
Chipset	SoC
Processor Graphics	Radeon™ Vega 8 Graphics

### Fanless

Yes

### Memory

Technology	2x DDR4 SODIMM with ECC
Max. Capacity	32GB

### Ethernet

Controller	Intel i226
Speed	100M/1G/2.5GbE
Interface	1x Console (RJ45) 6x M12 X-coded

### Storage

Type	M.2
Installation	1x M.2 2242/2280 M-Key Socket

### I/O

Display	SKU A: 2x HDMI, Resolution Up to 4K@30Hz (SKU A)
LAN	6x 2.5GbE LAN Isolated M12 X-coded with One Pair of LAN Bypass (SKU A)
OOB	1x RJ45 for OOB (SKU A)
Serial I/O	6x Isolated DIO 8x Isolated RS232/422/485
GPS	SKU A: BeiDou, Galileo, GLONASS, GPS / QZSS (3 concurrent GNSS, NEO-M8L) with ADR SKU B: BeiDou, Galileo, GLONASS, GPS / QZSS (4 concurrent GNSS, NEO-M9V) with UDR
CAN	2x Isolated CAN 2.0 default or Optional (J1939/J1708)
DIO	6x DI (Support PNP/ NPN / Dry Contact) & 6x DO (Support Dry / Sink), IEC 61131-2 24V With Maximum 200mA

Antenna 10x Antennas, 1 x Antenna for 3 Concurrent GNSS

USB 3x USB 3.2 without Isolated

### Expansion

M.2	2x M.2 3042/3052 B key socket (USB 3.1 signal) for 5G with dual SIM slots 1x M.2 2230 E key socket (PCIe + USB 2.0) for WiFi (SKU A)
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### Cooling

Processor	Passive CPU heatsink
System	Fanless design with corrugated aluminum

### Environment

Operating Temperature	-40°C ~ 75°C continuous run with conformal; 85°C for 10 minutes (EN 50155 Class TX) Non-Operating Temperature: -40°C ~ 85°C
Storage Temperature	-40°C ~ 85°C
Relative Humidity	Operating Relative Humidity: 5 ~ 95% Non-Operating Humidity: 5 ~ 95%

### Miscellaneous

Hardware Monitoring	Yes
Internal RTC with Li Battery	Yes

### Mechanical

Dimension (W x H x D)	438 x 44 x 300 mm
Weight	6 kg
Mounting	Rack mount kit

### Power

Connector	2x M12 K-coded Male connector (5pin male)
Input	24 ~ 110VDC

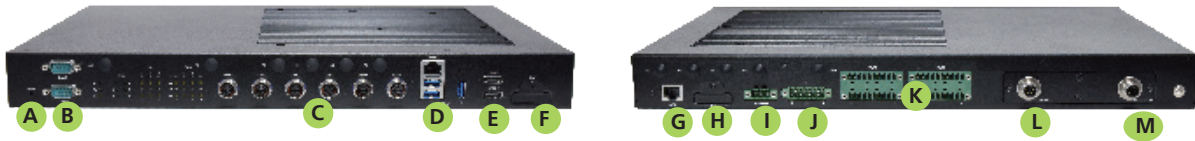
### Driver Support

Microsoft Windows	Windows 10 IoT
Linux	Linux Kernel 2.6X or later

### Certification

EMC	CE Class A, FCC Class A, RoHS
Safety	UL/CB 62368-1
Compliance	E13, EN50155, EN45545-2, EN50121-3-2, EN50121-4, EN50125-3, IP-40 Compliant, MIL-STD-810G anti-vibration & shock

## Product I/O View



**A** Reset Button

**B** CAN Bus

**C** M12 LAN Ports

**D** Console & USB

**E** HDMI

**F** SIM Slot

**G** OOB

**H** SIM Slot

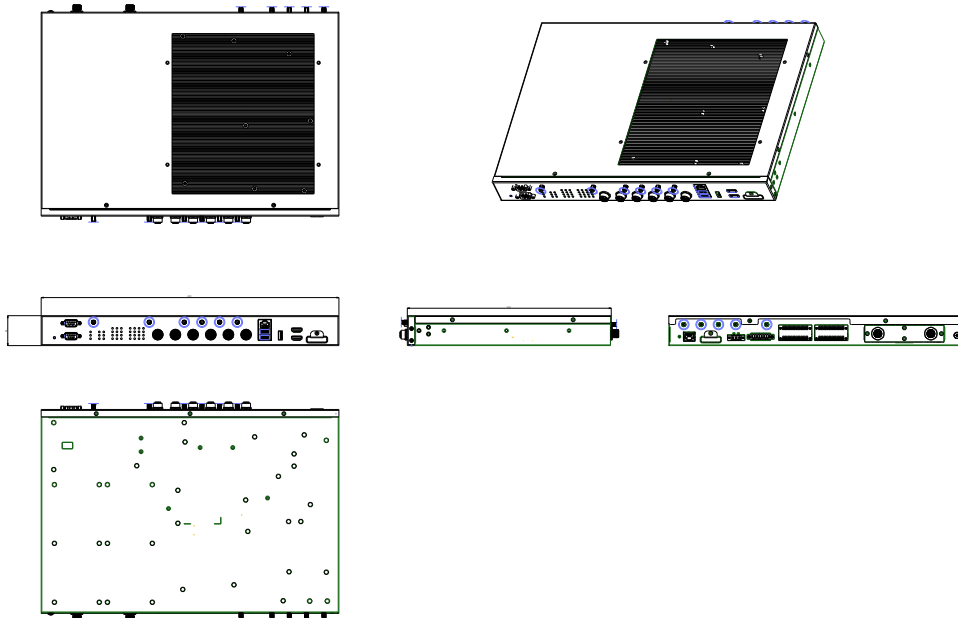
**I** GPS

**J** DIO

**K** COM

**L M** DC-in

## Dimensions: 438 x 44 x 300 mm



## Ordering Information

<b>ICS-R570A</b>	IP40 Fanless, AMD Ryzen™ V1404I, OOB, 2x DDR4 SODIMM, TPM 2.0 onboard, BeiDou, Galileo, GLONASS, GPS/QZSS (3 concurrent GNSS, NEO-M8L) with ADR, 1x Console, 3x USB 3.2 without isolated, 6x 2.5GbE LAN isolated M12 X-coded with one pair of LAN bypass, 2x HDMI, 6x isolated DIO, 8x isolated RS232/422/485, 2x isolated CAN 2.0, 1x M.2 2242/2280 M key socket, 2x M.2 3042/3052 B-Key socket for 5G with dual SIM slots each, 1x M.2 2230 E-Key socket, Supports dual DC 24-110V input by M12 K-coded
<b>ICS-R570B</b>	IP40 Fanless, AMD Ryzen™ V1404I, 2x DDR4 SODIMM, TPM 2.0 onboard, BeiDou, Galileo, GLONASS, GPS/QZSS (4 concurrent GNSS, NEO-M9V) with UDR, 1x Console, 3x USB 3.2 without isolated, 6x 2.5GbE LAN isolated M12 X-coded, 6x isolated DIO, 8x isolated RS232/422/485, 2x isolated CAN 2.0, 1x M.2 2242/2280 M-key socket, Supports DC 24-110V input by M12 K-coded

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