

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 3.1, 8x isolated RS232/422/485, 6x isolated DIO, OOB, 2x HDMI
- Operating temperature -40~70°C, 10mins for 85°C
- Compliance with MIL-STD-810G, EN50155, EN45545-2, EN50121-3-2, EN50121-4, EN50125-3

■ Preliminary 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	Up to 32GB

Ethernet

Controller	Intel i226 x6
Speed	100M/1G/2.5 GbE
Interface	1x Console (RJ45), M12 X-coded x6

Storage

Type	M.2
Installation	1x M.2 2242/2280 M key socket

I/O

Display	SKU A: HDMI x 2, resolution up to 4K@30Hz SKU B: No display
LAN	6x 2.5GbE LAN isolated M12 X-coded with one pair of LAN bypass (SKU A)
OOB	1x RJ45 for Out-of-band (OOB)
Serial I/O	6x isolated DIO, 8x isolated RS232/422/485, 2x isolated CAN 2.0
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 J1939/J1708
DIO	6x isolated DIO with Dry/Wet contact support
Antenna	10 x Antennas, 1 x Antenna for 3 concurrent GNSS
USB	3 x USB3.2 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
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Cooling

Processor	Passive CPU heatsink
System	Fanless design with corrugated aluminum

Environment

Operating Temperature	-40~75°C continuous run with conformal; 85°C for 10 minutes (EN 50155 Class TX) Non-Operating Temperature: -40~85°C
Storage Temperature	-40~85°C / -40~185°F
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	TBD
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	Debian 10

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



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|-------------------------|--------------------------|-------------------|---------------------|
| A Reset button | D Console and USB | G OOB x 1 | J DI/DO |
| B CAN bus | E HDMI x2 | H SIM slot | K COM x 2 |
| C M-12 LAN ports | F SIM slot | I GPS | L M DC Input |

■ Dimensions: 438 x 44 x 300 mm



■ Ordering Information

ICS-R570A	IP40 Fanless, AMD Ryzen™ V1404I, OOB, 2x DDR4 SODIMM slots , TPM 2.0 on-board, 1 x GPS 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
ICS-R570B	IP40 Fanless, AMD Ryzen™ V1404I, 2x DDR4 SODIMM slots , TPM 2.0 on-board, 1 x GPS with UDR, 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, Supports DC 24-110V input by M12 K-coded

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