

EAI-R530

AI Acceleration Railway Computer
with Intel® Raptor Lake-P CPU



■ Features

- IP40 Fanless 2.5U 19" rackmountable
- Intel® Raptor Lake-P processor platform
- Certified with EN 50155 and EN 45545 standard
- Hailo-8™ AI Acceleration Module & NVIDIA MXM GPU Module Support
- 2x 2.5GbE POE+ LAN, 4x 2.5GbE LAN, 1x USB 2.0, 2x USB 3.2, 2x HDMI Up to 4K
- Wide range operating temperature from -40°C to 70°C

■ Preliminary Specifications

Processor System

CPU	Intel® Raptor Lake-P Platform Processor
Frequency	3.0 GHz
Core Number	8
BIOS	AMI SPI Flash BIOS
Chipset	SoC
Processor Graphics	Intel® UHD Graphics

Fanless

Yes

Memory

Technology	2x 260-pin SODIMM DDR5 IBEC 4800MHz Sockets
Max. Capacity	Up to 64GB

Ethernet

Speed	10/100/1000 Mbps
Interface	RJ45

Storage

Type	SATAIII
Installation	2x SATAIII for 2.5" Storages, within 1x Removable Caddy
Type	M.2
Installation	2x M.2 2242/2280 M Key (PCIe x4) Sockets

I/O

Display	2x HDMI, Up to 4K@30Hz
LAN	4x 2.5GbE by M12 X-Coded
PoE	2x 2.5GbE by M12 X-Coded, supports PoE(IEEE 802.3af)
Console	1x RS232 by RJ45 Type with Isolated
GPS	u-blox NEO-M9V; 4 GNSS (GPS, Galileo, GLONASS, BeiDou)
OOB	1x RJ45 for Out-of-band (OOB) Management Solution
Antenna	8x Antenna for 5G Sub6 2/4x Antenna for WiFi 6E
USB	1x USB 2.0 with Isolated 2x USB 3.2 Gen1

Expansion

MXM	1x PCIe Gen3 x8 for for i7-13800HRE only
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M.2	5G Sub6: 2x M.2 3042/3052 B key socket with 1x no-SIM slot + 1x eSIM reserved WiFi: 1x M.2 2230 E key socket
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Cooling

Processor	Passive CPU heatsink
System	Fanless design with corrugated aluminum

Environment

Operating Temperature	-40~70°C / -40~158°F
Storage Temperature	-40~85°C / -40~185°F
Relative Humidity	5%~95%

Miscellaneous

Hardware Monitoring	Yes
Internal RTC with Li Battery	Yes

Mechanical

Dimension (W x H x D)	438 x 300 x 111.25 mm
Weight	TBD
Form Factor	IP40 Fanless 19" Rackmount, Wall mount (optional)

Power

Connector	M12 K-coded (Ground, DC_IN, Ground, IGN, Chassis Ground)
Input	DC 24-110V

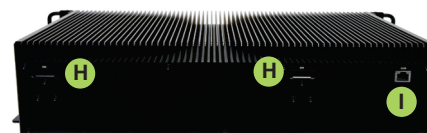
Driver Support

Microsoft Windows	Win 11 IoT
Linux	Dabian 10

Certification

EMC	CE EN55032, CE EN55035, FCC Class A
Safety	IEC 60950-1, IEC 62368, UL/cUL 62368-1
Railway	EN50155, EN45545-2, EN50121-3-2, EN50121-4, EN50124-1, EN50125-3, EN50153
Compliance	MIL-STD-810G

Product I/O View



A DC 24-110V Input

B Console Port

C USB Ports

D HDMI Ports

E 2.5 GbE PoE+

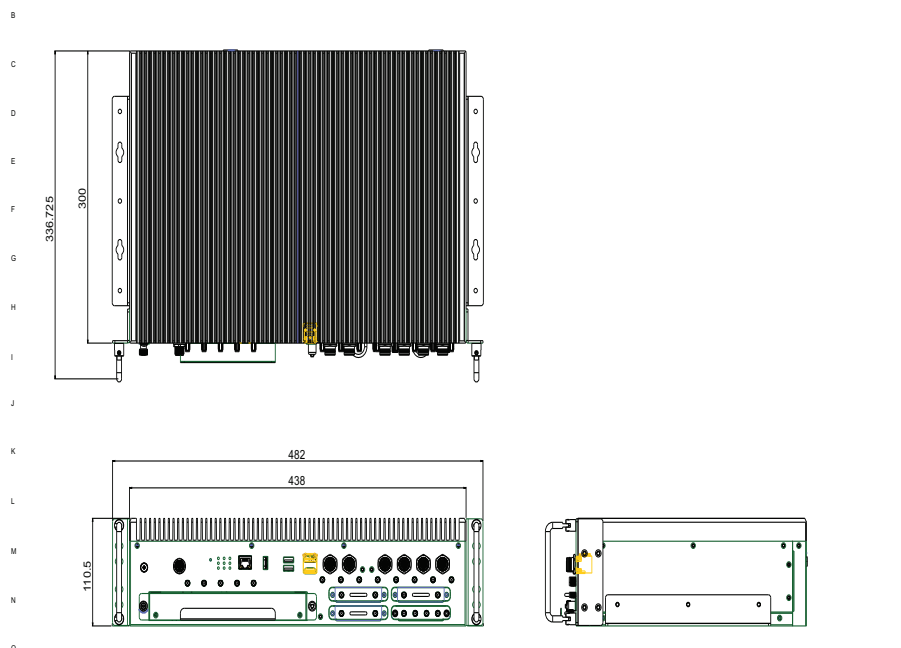
F 2.5 GbE LAN

G PGN

H SIM Cover

I OOB

Dimensions : 438 x 300 x 111.25 mm



Ordering Information

EAI-R530A	Intel RPL-P® i7-13800HRE, 2x DDR5 4800 IB ECC SODIMM, 2x M.2 2242/80 M Key (PCIe x4), 2x 2.5 GbE PoE+, 4x 2.5 GbE LAN, 1xMXM type A/B, Operating temperature -40~55°C
EAI-R530B	Intel RPL-P® i7-1370PRE, 2x DDR5 4800 IB ECC SODIMM, 2x M.2 2242/80 M Key (PCIe x4), support Hailo-8™ AI Acceleration module and NVIDIA MXM GPU module, 2x 2.5 GbE PoE+, 4x 2.5 GbE LAN, Operating temperature -40~70°C
EAI-R530C	Intel RPL-P® i7-1365URE, 2x DDR5 4800 IB ECC SODIMM, 2x M.2 2242/80 M Key (PCIe x4), support Hailo-8™ AI Acceleration module and NVIDIA MXM GPU module, 2x 2.5 GbE PoE+, 4x 2.5 GbE LAN, Operating temperature -40~70°C