

EAI-R530

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



■ Features

- 13th Generation Intel® Core™ Processor (Raptor Lake-P)
- Certified with EN 50155 and EN 45545 standard
- Support Hailo-8™ AI Acceleration Module & NVIDIA MXM GPU Module
- 2x 2.5GbE PoE+ LAN, 4x 2.5GbE LAN, 1x USB 2.0, 2x USB 3.2, 2x HDMI Up to 4K
- Support 4x Removable PGN Series Caddies for 5G/LTE connectivity
- 1x Removable 2.5" drive bay

■ Preliminary Specifications

Processor System

CPU	13th Generation Intel® Core™ Processor (Raptor Lake-P)
Frequency	2.5 GHz
Core Number	8
BIOS	AMI SPI Flash BIOS
Chipset	SoC
Processor Graphics	Intel® Iris® Xe Graphics eligible

Fanless

Yes

Memory

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

Ethernet

Speed	10/100/1000 Mbps
Interface	RJ45

Storage

Type	SATAIII
Installation	1x Removable 2.5" drive bay for 2x storages (HDD/SSD is not included)
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/at
Console	1x RS232 by RJ45 Type with Isolated
GPS	Support 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
M.2	5G Sub6: 2x M.2 3042/3052 B key socket with 1x nano-SIM slot + 1x eSIM reserved WiFi: 1x M.2 2230 E key socket
PGN	4x PGN Modules (optional)

Cooling

Processor	Passive CPU heatsink
System	Fanless design with corrugated aluminum

Environment

Operating Temperature	Up to -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	11 kg
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+

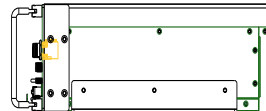
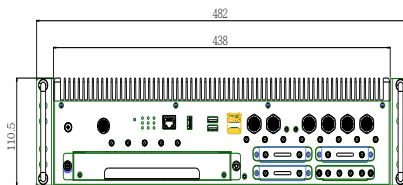
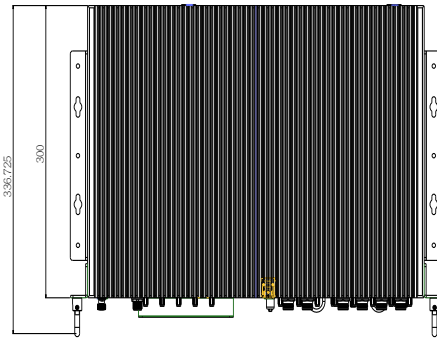
F 2.5 GbE LAN

G PGN

H SIM Cover

I OOB

Dimensions : 438 x 300 x 111.25 mm



Ordering Information

EAI-R530A

Intel RPL-P@ i7-13800HRE 14C (6P+8E)/20T 45W, 2x DDR5 4800 IB ECC SODIMM, 2x M.2 2242/80 M-Key (PCIe x4), 1x Removable storage caddy supports 2x 2.5" SSD, 2x 2.5 GbE PoE+ LAN under maximum 60W power budget, 4x 2.5 GbE LAN, 1x MXM type A/B under maximum 60W power budget, 6x M.2 3042/3052 B-Key (4 out of 6 from PGNs), 1x M.2 2230 E-Key, GPS, DC 24-110V input by M12 K-coded, OOB, operating temperature -40~55°C

EAI-R530B

Intel RPL-P@ i7-1370PRE 14C (6P+8E)/20T 28W, 2x DDR5 4800 IB ECC SODIMM, 2x M.2 2242/80 M-Key (PCIe x4), 1x Removable storage caddy supports 2x 2.5" SSD, 2x 2.5 GbE PoE+ LAN under maximum 60W power budget, 4x 2.5 GbE LAN, 6x M.2 3042/3052 B-Key (4 out of 6 from PGNs), 1x M.2 2230 E-Key, GPS, DC 24-110V input by M12 K-coded, OOB, operating temperature -40~70°C

EAI-R530C

Intel RPL-P@ i7-1365URE 10C (2P+8E)/20T 15W, 2x DDR5 4800 IB ECC SODIMM, 2x M.2 2242/80 M Key (PCIe x4), 1x Removable storage caddy supports 2x 2.5" SSD, 2x 2.5 GbE PoE+ LAN under maximum 60W power budget, 4x 2.5 GbE LAN, 6x M.2 3042/3052 B-Key (4 out of 6 from PGNs), 1x M.2 2230 E-Key, GPS, DC 24-110V input by M12 K-coded, OOB, operating temperature -40~70°C

V1-2024.4.24

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All product specifications are subject to change without notice.

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