

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
- NVIDIA MXM GPU Module
- 2x 2.5GbE PoE+ LAN, 4x 2.5GbE LAN, 1x USB 2.0, 2x USB 3.2, 2x HDMI, 1x Console, 1x OOB for RJ45
- 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™ i7-13800HRE(14C), i7-1370PRE(14C), i7-1365URE(10C) Processor (Raptor Lake-P)
Frequency	2.5 GHz
Core Number	14 / 10
BIOS	AMI SPI Flash BIOS
Chipset	SoC
Processor Graphics	Intel® Iris® Xe Graphics eligible

Fanless

Yes

Memory

Technology	2x 262-pin SODIMM DDR5 4800MHz Sockets
Max. Capacity	Up to 64GB (default 2x 32G)

Ethernet

Speed	100M/1G/2.5GbE Mbps
Interface	6x 2.5GB M12 X-coded i226IT

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 (NVMe) 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 SKU) by RJ45 Type with Isolated
GPS	support GPS Model: u-blox NEO-M9V
OOB	1x RJ45 for Out-of-band (OOB) Management Solution
Antenna	1x Antenna Hole for GPS; 8x Antenna Holes for 5G Sub6; 2x Antenna Holes for Wi-Fi 6E; 2x Antenna Reserved
USB	1x USB 2.0 with Isolated 2 x USB 3.2 Gen1 without isolated

Expansion

MXM	1x PCIe Gen3 x8 for MXM V3.1 Type A,B (SKU A Only, Optional)
M.2	2x M.2 M-key 3042/3052 for LTE/5G with SIM/e-SIM swappable by SIM switch IC 1x M.2 2230 E key socket for WiFi
PGN	4x PGN Modules (optional)

Cooling

Processor	Passive CPU heatsink
System	Fanless design with corrugated aluminum

Environment

Operating Temperature	Operating: -40 to 70°C -40 to 55°C with MXM GPU Card Non-Operating: -40 to 85°C
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 D x H)	438 x 300 x 110.5 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/FCC Class A
Safety	UL+CB
Railway	EN50155, EN45545-2, EN50121-3-2
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+

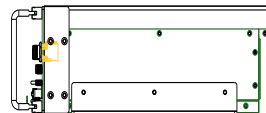
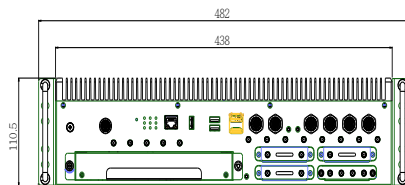
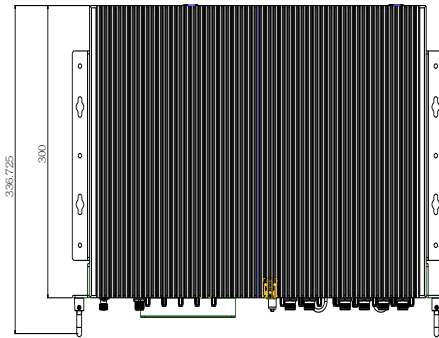
F 2.5 GbE LAN

G PGN

H SIM Cover

I OOB

Dimensions : 438 x 300 x 110.5 mm



Ordering Information

EAI-R530A

Intel 13th RPL-P® i7-13800HRE, 2x DDR5 4800 SODIMM (default 64GB), 2x M.2 2242/80 M-Key, 1x Removable storage caddy supports 2x 2.5" SSD, 2x 2.5 GbE PoE+ LAN, 4x 2.5 GbE LAN, 1x MXM type A/B (Optional), 1x Console, 1x USB2.0, 2x USB 3.0, 1x OOB for RJ45, 2x HDMI, 6x M.2 3042/3052 B-Key (4 out of 6 from PGNs) for LTE/5G, 1x M.2 2230 E-Key for WiFi, GPS, DC 24-110V input by M12 K-coded, operating temperature -40~70°C W/O MXM GPU card (Remark: PoE+ & MXM won't be active simultaneity due to the power budget limitation.)

EAI-R530B

Intel 13th RPL-P® i7-1370PRE, 2x DDR5 4800 SODIMM (default 64GB), 2x M.2 2242/80 M-Key, 1x Removable storage caddy supports 2x 2.5" SSD, 2x 2.5 GbE PoE+ LAN, 4x 2.5 GbE LAN, 1x Console, 1x USB2.0, 2x USB 3.0, 1x OOB for RJ45, 2x HDMI, 6x M.2 3042/3052 B-Key (4 out of 6 from PGNs) for LTE/5G, 1x M.2 2230 E-Key for WiFi, GPS, DC 24-110V input by M12 K-coded, operating temperature -40~70°C

EAI-R530C

Intel 13th RPL-P® i7-1365URE, 2x DDR5 4800 SODIMM (default 64GB), 2x M.2 2242/80 M-Key, 1x Removable storage caddy supports 2x 2.5" SSD, 6x 2.5 GbE LAN, 1x Console, 1x USB2.0, 2x USB 3.0, 1x OOB for RJ45, 2x HDMI, 6x M.2 3042/3052 B-Key (4 out of 6 from PGNs) for LTE/5G, 1x M.2 2230 E-Key for WiFi, GPS, DC 24-110V input by M12 K-coded, operating temperature -40~70°C

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All product specifications are subject to change without notice.

contact@lannerinc.com | www.lannerinc.com