



VMS-EHLR

Intel® Atom® x6425E Processor Rugged Fa Railway System

Intel® Elkhart Lake Atom™ x6425E Processor
Intel® UHD Graphic for 10th Gen Intel® Process
1-Memory Socket, Max. Up to 32GB DDR4 3200
2-COM Port (RS-232/422/485 by BIOS & Jumper)
2-Storage (Front Access 2.5" & M.2 Key-B SSD)
3-Display (DP 1.4 & HDMI 2.0 & VGA)
3-Expansion (mPCIe & M.2 Key-E/B)
4-M12 (DC-Input, USB 2.0, 2-LAN Port)
8-Bit Programmable GPIO with 2.5KV Isolated
Default Wall Mount Kit, dTPM 2.0 onboard

[+ Spec](#)

System Information

Processor	Intel® Atom™ x6425E Processor (1.5M Cache, up to 3.00 GHz)
System Memory	1 x 260-Pin SODIMM Socket Max. up to 32GB DDR4 3200MT/s
I/O Chipset	AMI uEFI BIOS 256 Mbit SPI Flash ROM
Watchdog Timer	H/W Reset, 1sec. ~ 65535sec.
H/W Status Monitor	Horizontal battery socket Supports wide operating temperature Supports no RTC battery mode
TPM	dTPM 2.0 (Default)
SBC	EBM-EHLR + EBM-EHLR DB-A

Expansion-

M.2	1 x M.2 Key-B 2242/3042/3052 support PCIeIII x1/ USB3.1 Gen.2 and SIM slot1 (external) 1 x M.2 Key-E 2230 for Wi-Fi & BT Module (PCIeIII x 1/ USB2.0)
mPCIe	1 x mPCIe support PCIeIII x1/ USB2.0 and SIM slot2 (external)

Storage-

M.2	1 x M.2 2242 (SATA III)
2.5" Drive Bay	1 x 2.5" Front Access Drive Bay (SATA III), supports w/9.5mm SSD

Front I/O-

USB Port	2 x USB 3.2 Gen.2 (10Gbp/s)
Power Button	Push Button for Power on/off (w/LED)
Reset Button	Push Button for Reset (Hidden)
LED Indicator	3 x LED indicator (PWR/Wi-Fi/LTE) Storage LED (Yellow)- M.2 B-key SATA/ 2.5"SSD Storage LTE LED (Green)- M.2 B-key PCIe/USB3 Wi-Fi LED (Green)- M.2 E key

Digital I/O	1 x 8-Bit 2.5KV Isolated GPIO in DB-9
CAN Bus	1 x 4-Pin CAN Bus H/L in DB-9
SIM Slot	2 x Front Access SIM Slot
Antenna	3 x Antenna Mount

Rear I/O-

USB Port	1 x USB 2.0 in M12-A code connector
COM Port	2 x COM Port (RS-232/422/385 in DB-9, select via BIOS, auto flow control via H/W)
HDMI	1 x HDMI 2.0
DP	1 x DP 1.4
VGA	1 x VGA
Audio	1 x Line-In, Line-Out and Mic-In in DB-15
RJ-45	2 x LAN Port in M12-X code connector

Right I/O-

Antenna	2 x Antenna Mount
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Left I/O-

Antenna	2 x Antenna Mount
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GPS-

Chipset	u-blox NEO-M9N GNSS LCC module with Untethered Dead Reckoning and onboard sensors
Protocol	BeiDou, Galileo, GLONASS, GPS / QZSS

Display-

Graphic Chipset	Intel® UHD Graphics for 10th Gen Intel® Processors
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Resolution

DP++ 1.4: 4096x2304 @ 60Hz (DP to HDMI cable can not support 4K@60Hz, max support 1920x1080(60Hz))
 HDMI 2.0b: Max. resolution 4096x2304 @ 60Hz
 VGA: 1920 x 1080 @ 60Hz

.-Audio-**Audio Codec**

Realtek ALC888S

.-Ethernet-

W

**LAN Chipset**

Intel® Ethernet Controller I210-IT

Specification

10/100/1000Base-T

LED Indicator

4 x LED indicator (LAN for active, speed)

.-Power Requirement-**DC Input Voltage**

Typical 24Vdc (+9~ 36Vdc) w/ Isolation
 TVS component for surge protection
 Reverse current/voltage protection

DC Input Connector

M12-A code (4 Poles: V+, V-, GND, IGN)

ACPI

Single power ATX Support S0, S3, S4, S5
 ACPI 5.0 Compliant

Power Mode

AT/ATX (ATX is default setting)

.-Software Support-**OS Information**

Win 10 64bit / Linux

.-Certification-**Certification Information**

CE, FCC Class A, UKCA, EN50155, EN50121, EN45545

.-Mechanical & Environmental**Operating Temperature**

-40°C ~ 70°C (w/SSD) ambient w/ 0.2 or 0.5 air flow

Storage Temperature

-30°C ~ 70°C (-22°F ~ 158°F)

Operating Humidity

40°C @ 95% Relative Humidity, Non-condensing

Dimension (W x L x H)

240*150*55 mm

Weight

2.2kg

Vibration Test

Operating with SSD : MIL-STD-810G, Method 514.6, Category 4, common carrier US highway truck vibration exposure

Shock Test

Operating with SSD: MIL-STD-810H, Method 516.8, Procedure I, functional shock=20G

IP Rating

IP50

Mounting Kit

Wall Mount Kit (standard)
 DIN RAIL (optional)

.-Ordering Information**Ordering Information**

VMS-EHLR-A1-1R
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