ECX 2400/2300 PEG

Workstation-grade Intel® Xeon®/Core™ i9/i7/i5/i3 (Comet Lake)
AI Computing System with NVIDIA® Tesla®/Quadro®/GeForce® Graphics

Traffic Vision

- Workstation-grade Platform :
  10-core 10th Gen Intel® Xeon®/Core™ i9/i7/i5/i3 Processor
  (CML-S) with Intel® W480E chipset, up to 95W TDP CPU
- Supports up to 250W NVIDIA® or AMD Graphics card
- 12V to 50V wide range DC Power Input, 80V Surge Protection
- Dual Front-access M.2 SSD Tray with PCIe x2 signal
- Supports Configurable Software Ignition Control and TPM 2.0
- Optional VHub AIoT Solution Service supports OpenVINO based AI accelerator and advanced Edge AI applications

Public Surveillance

Robotic Control

intel partner Gold IoT Solutions

250W M.2 SSD 12V~50V SW WiFi 6 5G

Vecow

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Specifications

System

Processor	10th Gen Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (Comet Lake-S)
Chipset	Intel® W480E
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2933MHz Memory, up to 64GB (ECC/Non-ECC)
OS	Windows 10, Linux

I/O Interface

Serial	4 COM RS-232/422/485 (ESD 8kV)
USB	6 USB 3.2 (External)
Isolated DIO	**ECX-2400 PEG Series :** 32 Isolated DIO : 16 DI, 16 DO **ECX-2300 PEG Series :** 16 GPIO
LED	Power, HDD, PoE, Wireless
SIM Card	3 External Nano SIM Card Socket

Expansion

Mini PCIe	2 Mini PCIe sockets for PCIe/USB/SIM Card/Optional mSATA
PCIe	2 PCIe x16 Slot with 1 PCIe x16, 1 PCIe x4 signal
M.2	- 1 M.2 Key B Socket (2280/3042/3052, PCIe x2/USB3/USB2) - 1 M.2 Key E Socket (2230, PCIe/USB)

Graphics

Graphics Processor	- Intel® UHD Graphics 630 - Independent Graphics : By request
Interface	Up to 7 independent displays : - 1 VGA, 1 DVI-D : Up to 1920 x 1080 @60Hz - 2 DisplayPort : Up to 4096 x 2304 @60Hz - By requested PEG

Storage

SATA	4 SATA III (6Gbps) support S/W RAID 0, 1, 5, 10
mSATA	2 SATA III (Mini PCIe Type, 6Gbps)
M.2	1 M.2 Key M Socket (2280, PCIe x2/SATA)
Storage Device	- 1 Micro SD Card, Push-in/Push-out Ejector - 4/2 Front-access 2.5" SSD/HDD Tray - 2 Front-access M.2 Key M SSD Tray (ECX-2400S PEG)

Audio

Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT 14.0
LAN 2	Intel® I210 GigE LAN

PoE (ECX-2400)

LAN 3 to LAN 6	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I350

Power

Power Input	12V to 50V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16-mode Software Ignition Control
Remote Switch	3-pin Terminal Block
Surge Protection	Up to 80V/1ms Transient Power

Others

TPM	Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Mgmt.	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	260mm x 240mm x 104mm (10.2" x 9.4" x 4.1")
Weight	5.5 kg (12.13 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount (Optional)

Environment

Operating Temp.	**35W & 65W TDP CPU :** -20°C to 45°C (-4°F to 113°F), with System Fan **80W & 95W TDP CPU :** -20°C to 45°C (-4°F to 113°F), with Fan Sink and System Fan
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @45°C
Shock/Vibration	- IEC 61373 : 2010 - Railway Applications : Rolling Stock Equipment, Shock and Vibration Tests
EMC	CE, FCC, EN50155, EN50121-3-2

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Order Information

Model	LAN		SSD Tray		PCIe		USB	COM	SIM	Isolated DIO	Sys. Fan	**Fan Sink
	GigE	PoE+	M.2	2.5"	x16	x4						
ECX-2400 PEG	6	4	-	4	1	1	6	4	3	32	Y	-
ECX-2400F PEG	6	4	-	4						32		Y
ECX-2400S PEG	6	4	2	2						32		-
ECX-2400SF PEG	6	4	2	2						32		Y
ECX-2300 PEG	2	-	-	4						16 GPIO		-
ECX-2300F PEG	2	-	-	4						16 GPIO		Y

** Fan Sinks are required for high TDP CPU systems (80W, 95W)

CPU List

Series	CPU	GHz	TDP (W)	CPU	GHz	TDP (W)	ECC RAM
Intel® Xeon®	W-1290E	4.8	95	W-1290TE	4.5	35	Y
	W-1270E	4.8	80	W-1270TE	4.4	35	Y
	W-1250E	4.7	80	W-1250TE	3.8	35	Y
Intel® Core™	i9-10900E	4.7	65	i9-10900TE	4.5	35	N/A
	i7-10700E	4.5	65	i7-10700TE	4.4	35	N/A
	i5-10500E	4.2	65	i5-10500TE	3.7	35	N/A
	i3-10100E	3.8	65	i3-10100TE	3.6	35	Y

Optional Software

VHub AI Developer	AI Development Kit
VHub ROS	AMR Development Kit
VHub EtherCAT	I/O Control Platform

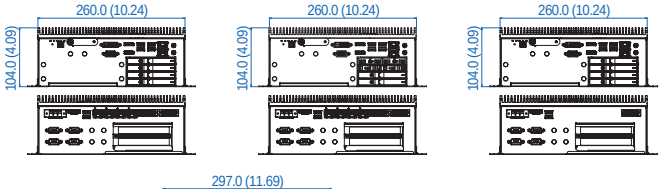
Accessories

DDR4 32G	Certified DDR4 32GB 3200MHz RAM
DDR4 16G	Certified DDR4 16GB 3200MHz RAM
DDR4 8G	Certified DDR4 8GB 3200MHz RAM
DDR4 4G	Certified DDR4 4GB 3200MHz RAM
PWA-160WB-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block (7.62mm pitch), Wide Temperature -30°C to +70°C
PWA-180WB	180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-280WB-WT	280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block (7.62mm pitch), Wide Temperature -30°C to +70°C
PWA-330WB	330W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWS-480W-WT	480W, 24V, 90V AC to 305V AC Power Supply, Wide-Temp, IP65
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail and VESA Mounting Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
M.2 Storage Module	M.2 Key M/Key B PCIe Storage Module
5G Module	5G Module with Antenna
4G Module	4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

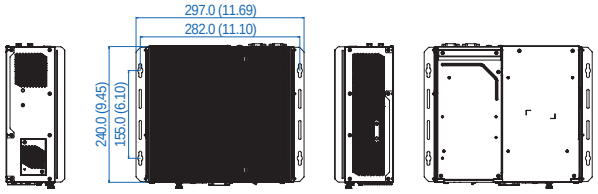
Unit : mm (inch)

ECX-2400A PEG

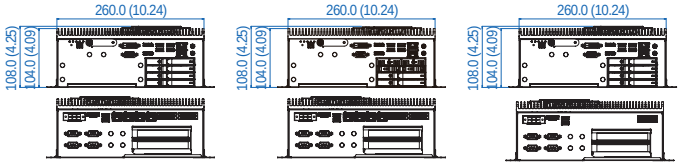


ECX-2400SA PEG

ECX-2300A PEG



ECX-2400AF PEG



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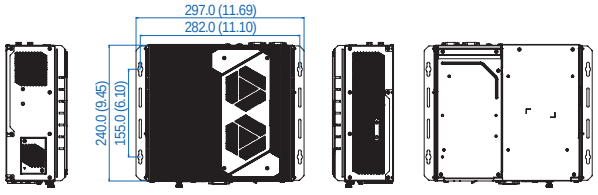
ECX-2300AF PEG