ECU-4784-V2

IEC 61850-3 Certified Power Automation Computer Based on 14th Generation Intel® Core™ Processors

NEW

Features

- 14th Gen Intel® Processor
- 2 x DDR4 SODIMM RAM, up to 64GB
- Tri-display interfaces for SCADA
- 100-250V$_{AC/DC}$ Redundant Power Supply (Optional)
- Supports SNMP for remote management
- Wide operating temperature range, fanless rugged design for harsh environments
- Optional 10-year warranty and long product life cycle for substations
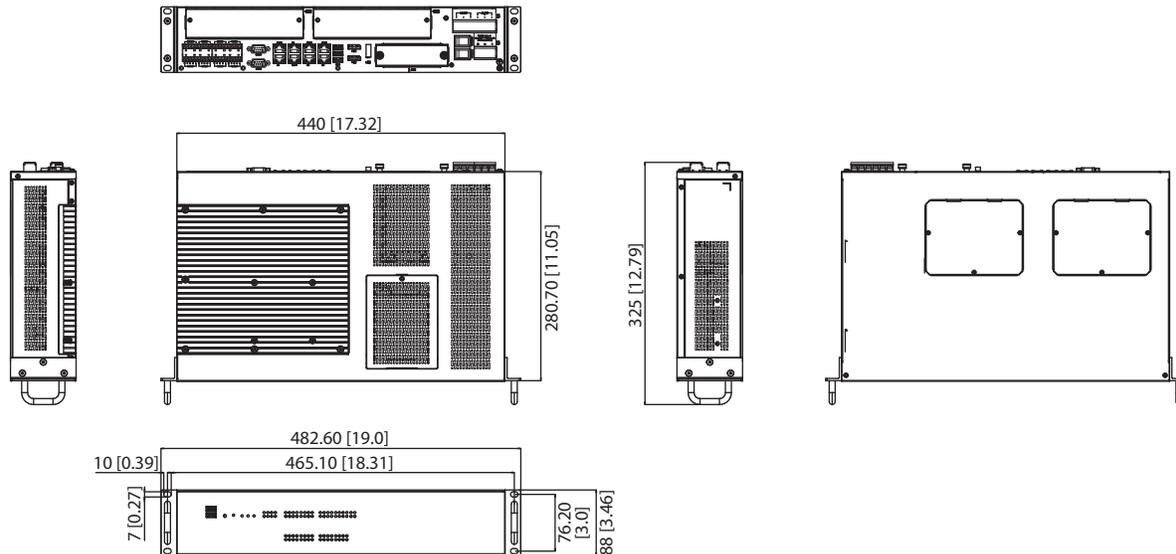- Supports TPM 2.0

Specifications

Computer system*	CPU	I9-14900T	i7-14700T	i9-14901TE	i7-14701TE
	Processor Base Frequency	1.1GHz	1.3GHz	2.3GHz	2.1GHz
	Intel Smart Cache	36MB	33MB	36MB	33MB
	Core Number	24 (8 P-cores, 16 E-Cores)	20 (8 P-cores, 12 E-Cores)	8 P-Cores	8 P-Cores
	TDP	Limited to 25W			
	Chipset	Intel® R680E chipset			
Memory*	Technology	Dual-channel DDR4			
	Capacity	Up to 64 GB			
	DIMM Slot	2 x DDR4 SODIMM RAM with ECC			
Ethernet	Controller	8 x Intel® I226			
	Speed	10/100/1000 Base-T, 2,500V isolation. Supports SNMP remote management			
	Connector	8 x RJ-45			
Storage*	2.5" SSD	4 x 2.5" SATA SSDs, up to 9.5mm height, support Intel RST RAID 0, 1, 10			
	M.2 SSD	1 x M.2 2242/2260/2280 M-Key NVMe PCIe Gen. 3 x4			
I/O	External USB	3 x USB 2.0 Gen1 (rear), 1 x USB 2.0 Gen1 (front), 1 x USB 3.2 Gen1 (front)			
	Internal USB	2 x USB 2.0			
	Serial	2 x Isolated RS-232 (DB9 connectors, Standard), 8 x RS-232/422/485 (Terminal Block) RS-232: 50 ~ 115.2 kbps, RS-422/485: 50 ~ 921.6 kbps 2500V isolation			
	Display	3 x DP++ 1.2 up to 4K @ 60Hz			
Expansion Interface	Proprietary PCIe	2 slots for ECU-P expansion card series			
	Optional Module	RJ45 Port, SFP Port, Isolated Serial Port, HSR/PRP			
Software	Operating System	Windows11, Windows10, Windows Server 2022, Linux (Ubuntu 24.04)			
Power	Input Voltage	Redundant Power Supply Power1: 90-264 V$_{AC}$, 100-250 V$_{DC}$ / 48V$_{DC}$ (Option) Power2: 90-264 V$_{AC}$, 100-250 V$_{DC}$ / 48 V$_{DC}$ (Option)			
Enviornment	Operating Temperature	-25°C ~ +70°C (depend on configuration)			
	Storage Temperature	-40 to 85°C			
	Relative Humidity	Operating, 95% RH @ 40°C, non-condensing Non-operating, 95% RH @ 60°C, non-condensing			
Mechanical	Dimensions (W x H x D)	With handles: 482.6 x 88 x 323.9 mm (19" x 3.5" x 12.8") Without handles: 440 x 88 x 280 mm (17.3" x 3.5" x 11")			
	Mounting	2U Rackmount			
	Weight	7.6 kg (16.78lbs)			
	Ingress Protection	IP20			
Certification	EMC	CE, FCC, IEEE 1613			
	Safety	CB, UL			
	Type approval	IEC 61850-3			
	Shock Protection	IEC 60068-2-27: 20G half sine, 11 ms with SSD			
	Vibration Protection	IEC 60068-2-64: Random 1 Oct./min, 1hr/axis with SSD			
Other	Trusted Platform Module	TPM 2.0			
	Watchdog Timer	Programmable 256 levels time interval, from 1 to 255 seconds for each tier			
	Relay	Relay Output Form C Channel 1			

*To be assembled in the Advantech CTOS center.

Dimensions

Unit: mm

440 [17.32]

280.70 [11.05]

325 [12.79]

482.60 [19.0]

465.10 [18.31]

10 [0.39]

7 [0.27]

76.20 [3.0]

88 [3.46]

Ordering Information

Part Number	Description	PSU	COO
ECU-4784-V2-S1	RPL-S Refresh, AC/DC, 8xLAN, 10xCOM, 3xDP, 2x ECU-P expansion slots	100-240V ac/dc x1	Taiwan
ECU-4784-V2-S2	RPL-S Refresh, AC/DC, 8xLAN, 10xCOM, 3xDP, 2x ECU-P expansion slots	48V dc x1	Taiwan

Optional List

Part Number	Description
XECU-FSP150-1H35	O/F A/D 100-240V 150W 24V W/PFC
ECU-KIT-478401	48V DC power supply kit for ECU-4784-V2
UNOP-1000K-AE	PCIe Expansion card w/ ECUP slot
ECU-P1618D-B	8 x RS-232/422/485 PCIe w/ ECUP slot
ECU-P1628D-B	8 x Isolated RS-232/422/485 PCIe w/ ECUP slot
ECU-P1528RE-B	8 x RJ45 Gigabit LAN card w/ ECUP slot
ECU-P1528PE-B	8 x SFP Gigabit LAN card w/ ECUP slot
ECU-P1524PE-AE	2 x SFP 100Mbps HSR/PRP Card w/ ECUP slot
ECU-P1524PE-GAE	2 x SFP Gigabit HSR/PRP Card w/ ECUP slot

Front View

USB

LAN LED

COM LED

Power HDD LED   Slot2 LED

Slot1 LED

Rear View

SSD slot

DP

USB

LAN

COM

ECU-P expansion slots