

ECS

4700



13th Gen Intel® Core™ i7/i5 Processor (Raptor Lake-P)
EN60945 Certified Marine-grade Rugged Embedded System



▲ Marine



- Low-power 13th Gen Intel® Core™ i7/i5 Processor (Raptor Lake-P), 28W TDP GPU
- Marine-grade Designs, EN60945 EMC compliant
- Supports Intel® vPro, TSN, TCC, and TPM 2.0
- 2 2.5G LAN, 4 PoE+ LAN, Isolated PoE Protection
- 2 USB 3.2 Gen 2, 1 USB 3.2 Gen 2x2 Type-C supports up to 20Gbps data transfer
- Compact Design, fanless -25°C to 75°C Operating Temperature
- DC 9V to 50V Redundant Power Input, Software Ignition Power Control
- Fully supports Intel OpenVINO toolkit for AI Computing
- Supports 5G/WiFi/4G/LTE/GPRS/UMTS Wireless Communication

▼ Machine Vision



▲ Mobile NVR



OpenVINO™



Vecow

Specifications

System

Processor	- Onboard 14-core 13th Gen Intel® Core™ i7-1370PE Processor (Raptor Lake-P) - Onboard 10-core 13th Gen Intel® Core™ i7-1365UE Processor (Raptor Lake-P) - Onboard 10-core 13th Gen Intel® Core™ i5-1345UE Processor (Raptor Lake-P)
Chipset	Intel® SoC
GPU	Intel® Iris X ^e
BIOS	AMI
SIO	IT8786E
Memory	2 DDR5 5200MHz SO-DIMM, up to 96GB
OS	Windows 11, Windows 10, Linux

I/O Interface

Serial	4 COM RS-232/422/485
USB	- 2 USB 3.2 Gen2 Type-A - 1 USB 3.2 Gen 2x2 Type-C, support DP 1.4a - 2 USB 2.0 Type-A
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
Display	- 2 DisplayPort 1.4a : Up to 3840 x 2160 @60Hz - 1 DisplayPort 1.4a : Up to 3840 x 2160 @60Hz by USB Type-C - 1 HDMI2.0 : Up to 3840 x 2160 @60Hz
LED	Power, HDD, PoE
SIM	1 External Nano SIM Socket

Expansion

M.2	- 1 M.2 Key B Socket (2280/3052, PCIe x2/USB 3 Default) - 1 M.2 Key E Socket (2230, PCIe x1)
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Storage

SATA	2 SATA III (6Gbps) support software RAID 0, 1 - 2.5" SSD/HDD internal bracket (ECS-4700-PoE, ECS-4700-2G) - 2 Front-access 2.5" SSD/HDD Tray (ECS-4700-PoER)
M.2	1 M.2 Key M Socket (2280, PCIe x4)

Audio

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

Ethernet

LAN 1	Intel® I226 2.5GigE LAN supports TSN
LAN 2	Intel® I226 2.5GigE LAN supports TSN

PoE (ECS-4700-PoE/PoER)

LAN 3	GigE IEEE 802.3at (25.5W/48V) PoE ⁺ by Intel® I350
LAN 4	GigE IEEE 802.3at (25.5W/48V) PoE ⁺ by Intel® I350
LAN 5	GigE IEEE 802.3at (25.5W/48V) PoE ⁺ by Intel® I350
LAN 6	GigE IEEE 802.3at (25.5W/48V) PoE ⁺ by Intel® I350

Remind : PoE power budget supports up to 25.5W/each, total 35W.

Power

Power Input 1	DC 9V to 50V, Redundant Power Input
Power Input 2	DC 9V to 50V, Redundant Power Input
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16-mode Software Ignition Control
Remote Switch	3-pin Terminal Block

Others

TPM	Infineon SLB9672 supports TPM 2.0, SPI Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	ECS-4700 : 256.8mm x 141.0mm x 48.1mm (10.11" x 5.55" x 1.89") ECS-4700F : 256.8mm x 141.0mm x 54.9mm (10.11" x 5.55" x 2.16")
Weight	ECS-4700 : 2.1kg (4.6lb) ECS-4700F : 2.2kg (4.8lb)
Mounting	- Wallmount by mounting bracket - VESA Mount (Optional) - DIN Rail Mount (Optional)

Environment

Operating Temperature	-25°C to 75°C (-13°F to 167°F) with air flow
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @75°C
Vibration	IEC 60068-2-64
Shock	IEC 60068-2-27
EMC	CE, FCC, EN50155, EN50121-3-2, EN60945

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Order Information

Model	CPU	LAN		USB 3.2	SSD Tray	Isolated DIO (GPIO)	Fan
		2.5G	PoE ⁺				
ECS-4700F-PoER-1370PE	Core i7-1370PE	2	4	3	2	16	Y
ECS-4700-PoER-1365UE	Core i7-1365UE				2	16	N/A
ECS-4700-PoER-1345UE	Core i5-1345UE				2	16	N/A
ECS-4700F-PoE-1370PE	Core i7-1370PE				-	16	Y
ECS-4700-PoE-1365UE	Core i7-1365UE				-	16	N/A
ECS-4700-PoE-1345UE	Core i5-1345UE				-	16	N/A
ECS-4700-2G-1365UE	Core i7-1365UE	-	-	(16)	N/A		
ECS-4700-2G-1345UE	Core i5-1345UE	-	-	(16)	N/A		

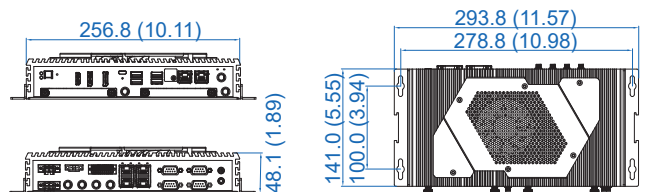
Accessories

DDR5 48G	Certified DDR5 48GB 5600MHz RAM
DDR5 32G	Certified DDR5 32GB 4800/5600MHz RAM
DDR5 24G	Certified DDR5 24GB 5600MHz RAM
DDR5 16G	Certified DDR5 16GB 4800/5600MHz RAM
DDR5 8G	Certified DDR5 8GB 4800/5600MHz RAM
PWA-120W1	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-180W	180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block *Recommended when enable turbo mode
M.2 Storage Module	M.2 Key M/Key B Storage Module
5G Module	5G Module with Antenna
4G Module	4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

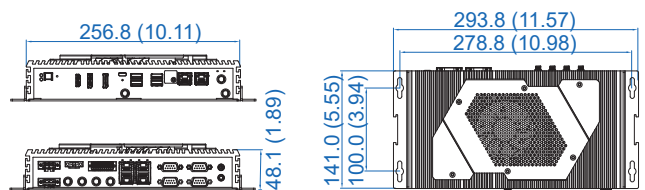
Dimensions & Drawing

Unit : mm (inch)

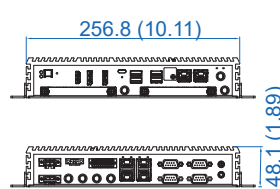
ECS-4700F-PoER



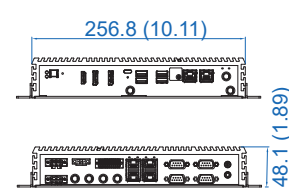
ECS-4700-PoE



ECS-4700-PoER



ECS-4700-PoE



ECS-4700-2G

