

ECS-4500-PoE

Intel® Core™ i7/i5/i3 Processor (Kaby Lake/Skylake) Slim Fanless Embedded System, 6 GigE LAN with 4 PoE+, 5 USB 3.0, Isolated DIO, Rugged, Extended Temperature



Features

- Intel® Core™ i7/i5/i3 U-series SoC (Kaby Lake/Skylake)
- DVI-D and dual DisplayPort LVDS display interfaces support up to 4K resolution
- Fanless, -25°C to 70°C Operating Temperature
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+
- 16 Isolated DIO, 5 USB 3.0, 4 COM
- 2 Mini PCIe for WiFi/4G/3G/LTE/GPRS/UMTS
- 2 External SIM Socket, 1 External CFast Socket
- 6V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control



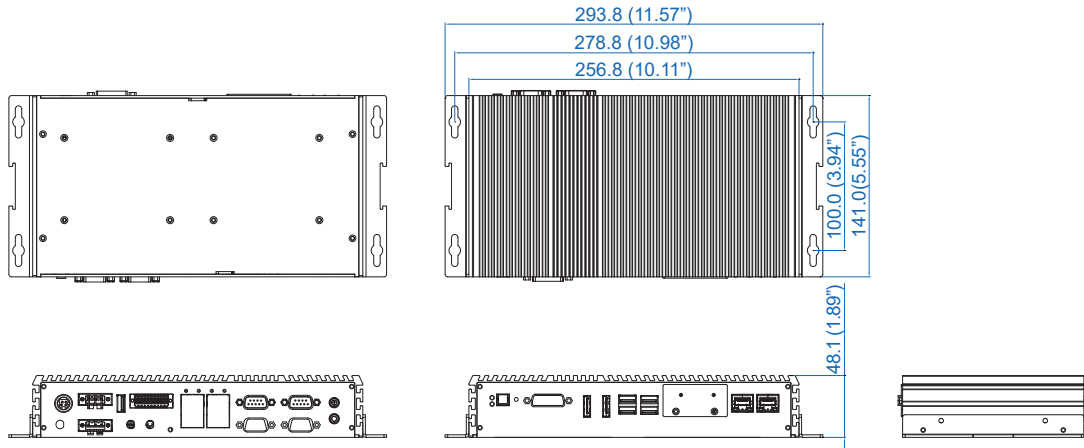
Specifications

System	
Processor	Intel® Core™ i7-7600U/i7-6600U/i5-6300U/Celeron® 3955U Processor (Kaby Lake-U/Skylake-U)
Chipset	Intel® SoC (Kaby Lake-U/Skylake-U)
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2400/2133 MHz SO-DIMM, up to 64GB
I/O Interface	
Serial	4 COM RS-232/422/485
USB 3.0	5 USB 3.0 (External)
USB 2.0	3 USB 2.0 (Internal)
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
LED	Power, HDD, Wireless, PoE
SIM Card	2 SIM Card Socket (External)
Expansion	
Mini PCIe	2 Mini PCIe Socket : ▪ 1 Mini PCIe for PCIe/USB/External SIM Card ▪ 1 Mini PCIe for PCIe/USB/External SIM Card/mSATA
Graphics	
Graphics Processor	Intel® HD Graphics 520
Interface	▪ DVI-D : Up to 1920 x 1200 @ 60Hz ▪ DisplayPort 1 : Up to 4096 x 2304 @ 60Hz ▪ DisplayPort 2 : Up to 4096 x 2304 @ 60Hz
Storage	
SATA	2 SATA III (6Gbps)
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	▪ 1 CFast Socket, Push-in/Push-out Ejector ▪ 2 2.5" SSD/HDD Bracket (Internal)
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 11.0
LAN 2	Intel® I210 GigE LAN

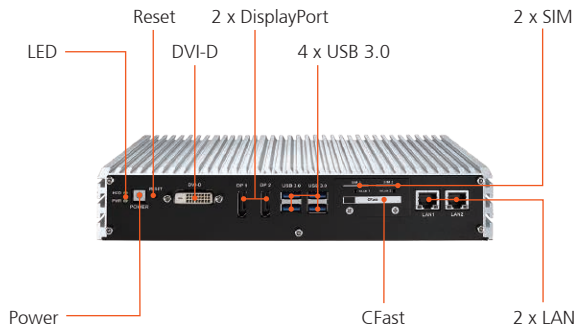
PoE	
LAN 3	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 4	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 5	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
LAN 6	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210
Power	
Power Input	6V to 36V, DC-in
Power Interface	▪ 3-pin Terminal Block : V+, V-, Frame Ground ▪ Mini-DIN 4-pin
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power
Others	
TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Management	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.
Software Support	
OS	Windows 10, Windows 8.1, Windows 7, Linux
Mechanical	
Dimensions (W x L x H)	257mm x 141mm x 48mm (10.11" x 5.55" x 1.89")
Weight	2.1 kg (4.6 lb)
Mounting	▪ Wallmount by mounting bracket ▪ DIN Rail Mount (Optional)
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 70°C
Shock	▪ IEC 60068-2-27 ▪ SSD : 50G @ wallmount, Half-sine, 11ms
Vibration	▪ IEC 60068-2-64 ▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis
Certification	CE, FCC, EN50155, EN50121-3-2

Dimensions

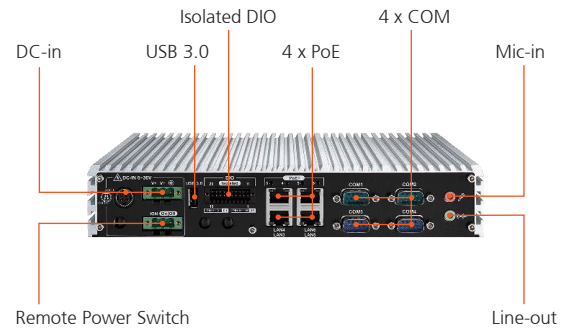
Unit : mm/ inch



Front I/O



Rear I/O



Order Information

ECS-4500-PoE7600U	ECS-4500, Intel® Core™ i7-7600U, 6 GigE LAN with 4 PoE+, 4 COM, 5 USB 3.0, Isolated DIO
ECS-4500-PoE600U	ECS-4500, Intel® Core™ i7-6600U, 6 GigE LAN with 4 PoE+, 4 COM, 5 USB 3.0, Isolated DIO
ECS-4500-PoE300U	ECS-4500, Intel® Core™ i5-6300U, 6 GigE LAN with 4 PoE+, 4 COM, 5 USB 3.0, Isolated DIO
ECS-4500-PoE955U	ECS-4500, Intel® Celeron® 3955U, 6 GigE LAN with 4 PoE+, 4 COM, 5 USB 3.0, Isolated DIO
DDR4 32G	Certified DDR4 32GB 2666MHz RAM
DDR4 16G	Certified DDR4 16GB 2133MHz RAM
DDR4 8G	Certified DDR4 8GB 2133MHz RAM
DDR4 4G	Certified DDR4 4GB 2133MHz RAM
PWA-160W-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-120WM4P	120W, 24V, 90V AC to 264V AC Power Adapter with 4-pin Mini-DIN Connector
PWA-120W	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
TMBK-20P-100	Terminal Block 20-pin to SCSI, 100cm
TMBK-20P-500	Terminal Block 20-pin to SCSI, 500cm
TMB-SCSI-20P	Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail Kit
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna