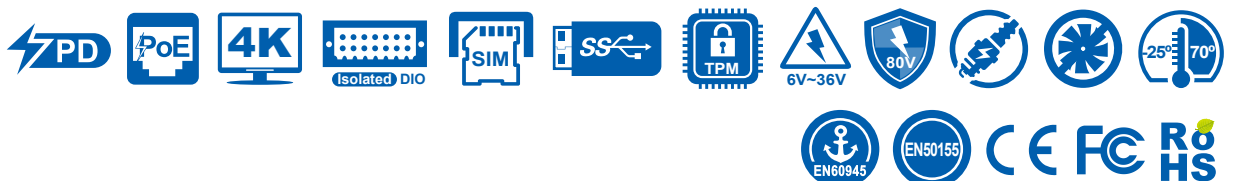


ECS-4500 Series

Intel® Core™ i7/i5/i3 U-series Processor (Kaby Lake-U/Skylake-U) Slim Fanless Embedded System, 6 GigE LAN with 4 PoE+, 2 Independent Powered Device (PD) LAN, 2 Front-access SSD/HDD Tray, 2 External SIM Socket, 5 USB 3.0, 16 Isolated DIO, High Performance, Rugged, Extended Temperature

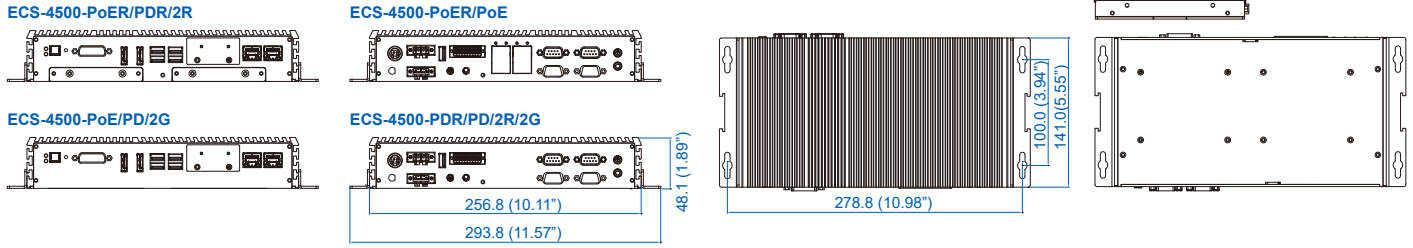


- Intel® Core™ i7/i5/i3 U-series SoC (Kaby Lake-U/Skylake-U)
- 2 Independent GigE LAN support IEEE 802.3at Powered Device (PD) and iAMT 11.0
- 4 Independent GigE LAN with IEEE 802.3at PoE+, Power on/off enabled
- Front-access : 2 2.5" SSD Tray, 2 SIM Socket, 5 USB 3.0, 1 CFast Socket
- Slim design, Fanless, -25°C to 70°C Operating Temp
- 16 Isolated DIO, 16 GPIO
- DDR4 2400/2133 MHz memory, up to 64GB
- DVI-D and Dual DisplayPort interfaces, up to 4K display
- 2 Mini PCIe for 3G/4G/LTE/WiFi/GPRS/UMTS
- 6V to 36V DC-in with 80V Surge Protection
- Configurable Ignition Power Control



Dimensions & Drawing

Unit: mm (inch)



Specifications

System	
Processor	Intel® Core™ i7/i5/i3 U-series Processor (Kaby Lake-U/Skylake-U)
Chipset	Intel® SoC
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	<ul style="list-style-type: none"> 5 USB 3.0 (External) 3 USB 2.0 (Internal)
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO (Optional)
GPIO	16 GPIO (Internal)
LED	Power, HDD, Wireless, PoE, PD
SIM Card	2 External SIM Card Socket
Expansion	
Mini PCIe	2 Mini PCIe Socket : <ul style="list-style-type: none"> 1 Full-size for PCIe/USB/External SIM Card 1 Full-size for PCIe/USB/External SIM Card/mSATA
Graphics	
Processor Interface	Intel® HD Graphics 520 <ul style="list-style-type: none"> 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) support S/W RAID 0, 1
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	<ul style="list-style-type: none"> 1 CFast Socket, Push-in/Push-out Ejector 2 Front-access 2.5" SSD/HDD Tray
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 IEEE 802.3at (25.5W/48V) Powered Device (PD) and iAMT 11.0
LAN 2	Intel® I210 GigE LAN supports IEEE 802.3at (25.5W/48V) Powered Device (PD)

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	<ul style="list-style-type: none"> 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	
Dimension	257mmx 141mmx 48mm (10.1" x 5.6" x 1.9") (W x L x H)
Weight	2.1 kg (4.6 lb)
Mounting	<ul style="list-style-type: none"> Wallmount by mounting bracket DIN Rail Mount (Optional)
Environment	
Operating Temp.	-25°C to 70°C (-13°F to 158°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 70°C
Shock	<ul style="list-style-type: none"> IEC 60068-2-27 SSD : 50G @ wallmount, Half-sine, 11ms IEC 60068-2-64 SSD : 5Grms, 5Hz to 500Hz, 3 Axis
Vibration	
EMC	CE, FCC, EN50155, EN50121-3-2, EN60945

Order Information

Part No.	CPU	LAN	PoE+	PD	SSD Tray	COM	USB 3.0	Isolated DIO	GPIO
ECS-4500-PoER-7600U/600U/300U/955U	Intel® Core™ i7-7600U/i7-6600U/i5-6300U/Celeron® 3955U	6	4	N/A	2	4	5	16	16
ECS-4500-PoE-7600U/600U/300U/955U	Intel® Core™ i7-7600U/i7-6600U/i5-6300U/Celeron® 3955U	6	4	N/A	Internal	4	5	16	16
ECS-4500-PDR-600U/300U/955U	Intel® Core™ i7-6600U/i5-6300U/Celeron® 3955U	2	N/A	2	2	4	5	N/A	32
ECS-4500-PD-600U/300U/955U	Intel® Core™ i7-6600U/i5-6300U/Celeron® 3955U	2	N/A	2	Internal	4	5	N/A	32
ECS-4500-2R-600U/300U/955U	Intel® Core™ i7-6600U/i5-6300U/Celeron® 3955U	2	N/A	N/A	2	4	5	N/A	32
ECS-4500-2G-600U/300U/955U	Intel® Core™ i7-6600U/i5-6300U/Celeron® 3955U	2	N/A	N/A	Internal	4	5	N/A	32

- DDR4 32G
- DDR4 16G
- DDR4 8G
- DDR4 4G
- PWA-160W-WT
- PWA-120WM4P
- PWA-120W
- 4G Module
- WiFi & Bluetooth Module
- Certified DDR4 32GB 2666MHz RAM
- Certified DDR4 16GB 2133MHz RAM
- Certified DDR4 8GB 2133MHz RAM
- Certified DDR4 4GB 2133MHz RAM
- 160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
- 120W, 24V, 90V AC to 264V AC Power Adapter with 4-pin Mini-DIN Connector
- 120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
- Mini PCIe 4G/GPS Module with Antenna
- WiFi & Bluetooth Module with Antenna