

ECS-4500-PDR

Intel® Core™ i7/i5/i3 Processor (Skylake) Slim Fanless Embedded System, 2 GigE PD LAN, 2 Front-access SSD Tray, 5 USB 3.0, GPIO, Rugged, Extended Temperature



Features

- Intel® Core™ i7/i5/i3 U-series SoC (Skylake-U)
- DVI-D and dual DisplayPort display interfaces support up to 4K resolution
- Fanless, -25°C to 70°C Operating Temperature
- 2 Independent GigE LAN support Powered Device (PD) and iAMT 11.0
- 2 Front-access 2.5" SSD Tray, 1 Front-access CFast Socket
- 2 External SIM Card Socket
- 2 Mini PCIe for 3G/4G/LTE/WiFi/GPRS/UMTS
- 5 USB 3.0, 16 GPIO, 4 COM
- 6V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control



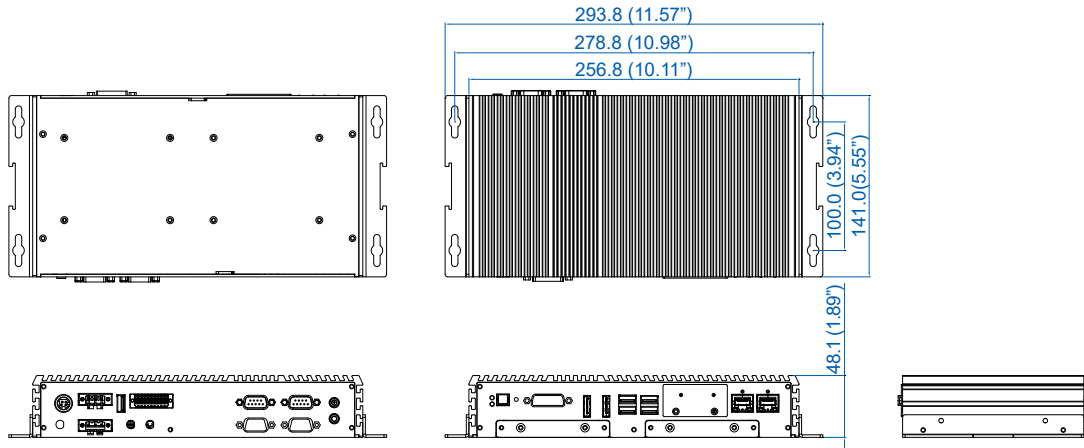
Specifications

| System | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor | Intel® Core™ i7-6600U/i5-6300U/Celeron® 3955U Processor (Skylake-U) |
| Chipset | Intel® SoC (Skylake) |
| BIOS | AMI |
| SIO | IT8786E |
| Memory | 2 DDR4 2133MHz SO-DIMM, up to 32GB |
| I/O Interface | |
| Serial | 4 COM RS-232/422/485 |
| USB 3.0 | 4 USB 3.0 (External) |
| USB 2.0 | 3 USB 2.0 (Internal) |
| GPIO | 16 GPIO |
| LED | Power, HDD, Wireless, PD |
| SIM Card | 2 SIM Card Socket (External) |
| Expansion | |
| Mini PCIe | 2 Mini PCIe Socket : <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> DVI-D : Up to 1920 x 1200 @ 60Hz DisplayPort 1 : Up to 4096 x 2304 @ 60Hz DiaplayPort 2 : Up to 4096 x 2304 @ 60Hz |
| Storage | |
| SATA | 2 SATA III (6Gbps) |
| 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 Powered Device (PD) and iAMT 11.0 |
| LAN 2 | Intel® I210 GigE LAN supports Powered Device (PD) |

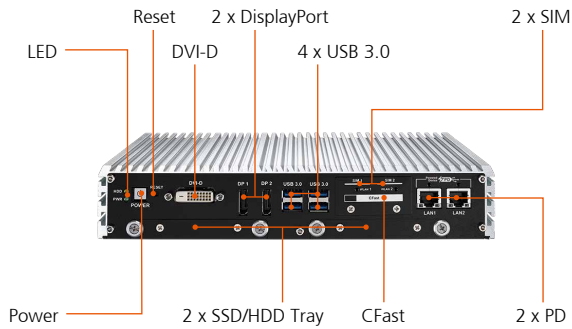
| Power | |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Power Input | 6V to 36V, DC-in |
| Power Interface | <ul style="list-style-type: none"> 3-pin Terminal Block : V+, V-, Frame Ground Mini-DIN 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 | |
| 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> IEC 60068-2-27 SSD : 50G @ wallmount, Half-sine, 11ms |
| Vibration | <ul style="list-style-type: none"> IEC 60068-2-64 SSD : 5Grms, 5Hz to 500Hz, 3 Axis |
| Certification | CE, FCC, EN50155, EN50121-3-2 |

Dimensions

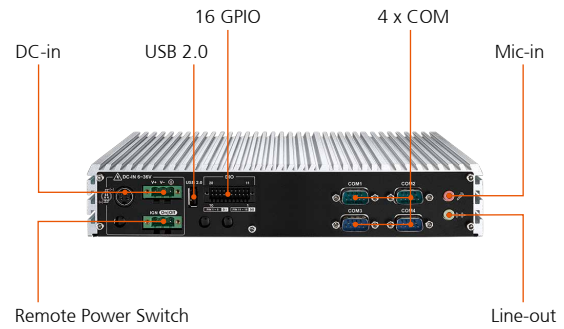
Unit : mm/ inch



Front I/O



Rear I/O



Order Information

| | |
|-----------------------------|-------------------------------------------------------------------------------------------------------|
| ECS-4500-PDR600U | ECS-4500, Intel® Core™ i7-6600U, 2 PD LAN, 2 SSD Tray, 4 COM, 5 USB 3.0, 32 GPIO |
| ECS-4500-PDR300U | ECS-4500, Intel® Core™ i5-6300U, 2 PD LAN, 2 SSD Tray, 4 COM, 5 USB 3.0, 32 GPIO |
| ECS-4500-PDR955U | ECS-4500, Intel® Celeron® 3955U, 2 PD LAN, 2 SSD Tray, 4 COM, 5 USB 3.0, 32 GPIO |
| 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 |