

# ECS-4500-2G

Intel® Core™ i7/i5/i3 Processor (Skylake) Slim Fanless Embedded System, 2 GigE LAN, 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, iAMT 11.0 supported
- 5 USB 3.0, 4 COM, 16 GPIO
- 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



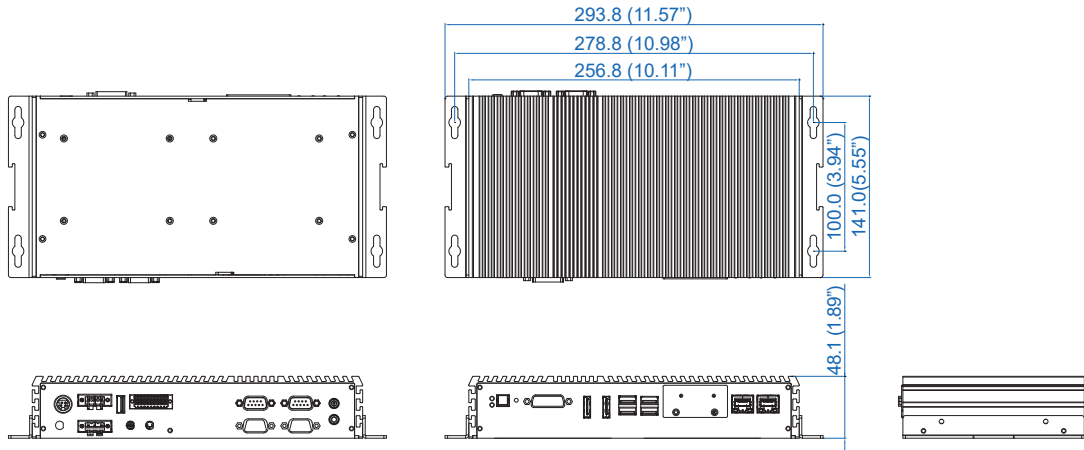
## Specifications

System	
Processor	Intel® Core™ i7-6600U/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	5 USB 3.0 (External)
USB 2.0	3 USB 2.0 (Internal)
GPIO	16 GPIO
LED	Power, HDD, Wireless
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 ALC892, 5.1 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

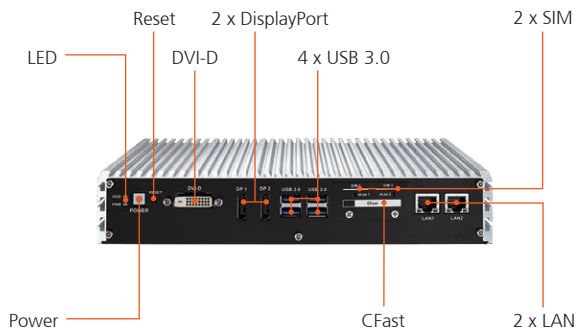
Power	
Power Input	6V to 36V, DC-in
Power Interface	▪ 3-pin Terminal Block : V+, V-, Frame Ground ▪ Mini-DIN 4-pin
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power
UPS	Supported (Optional)
Others	
TPM	Optional Infineon 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

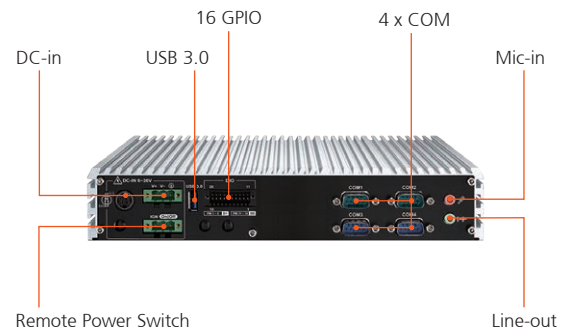
Unit : mm/ inch



## Front I/O



## Rear I/O



## Order Information

<b>ECS-4500-2G600U</b>	ECS-4500, Intel® Core™ i7-6600U, 2 GigE LAN, 4 COM, 5 USB 3.0, 16 GPIO
<b>ECS-4500-2G300U</b>	ECS-4500, Intel® Core™ i5-6300U, 2 GigE LAN, 4 COM, 5 USB 3.0, 16 GPIO
<b>ECS-4500-2G955U</b>	ECS-4500, Intel® Celeron® 3955U, 2 GigE LAN, 4 COM, 5 USB 3.0, 16 GPIO
<b>DDR4 16G</b>	Certified DDR4 16GB 2133MHz RAM
<b>DDR4 8G</b>	Certified DDR4 8GB 2133MHz RAM
<b>DDR4 4G</b>	Certified DDR4 4GB 2133MHz RAM
<b>PWA-160W-WT</b>	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
<b>PWA-120WM4P</b>	120W, 24V, 90V AC to 264V AC Power Adapter with 4-pin Mini-DIN Connector
<b>PWA-120W</b>	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
<b>TMBK-20P-100</b>	Terminal Block 20-pin to SCSI, 100cm
<b>TMBK-20P-500</b>	Terminal Block 20-pin to SCSI, 500cm
<b>TMB-SCSI-20P</b>	Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting
<b>VESA Mount</b>	VESA Mounting Kit
<b>DIN-RAIL</b>	DIN Rail Kit
<b>4G Module</b>	Mini PCIe 4G/GPS Module with Antenna
<b>WiFi &amp; Bluetooth</b>	WiFi & Bluetooth Module with Antenna