

ECS-9700/9600 PEG

Intel® Xeon®/Core™ i7/i5 (Skylake-H) AI Computing System with
NVIDIA® Tesla®/Quadro®/GeForce®/AMD Radeon™ Graphics

- Workstation-grade Intel® Xeon®/Core™ i7/i5 Processor (Skylake-H) with Intel® CM236
- 2 DDR4 2133MHz SO-DIMM, up to 64GB (ECC/Non-ECC)
- NVIDIA® Tesla®/Quadro®/GeForce® graphics card, powered by advanced NVIDIA Turing/Pascal architecture, delivers leading AI computing productivity
- Multiple DVI, VGA and DisplayPort display interfaces support max 7 independent displays, up to 8K Resolution
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+
- 4 SIM Card Socket for WiFi/4G/3G/LTE/GPRS/UMTS
- 2 Front-access 2.5" SSD Tray, 6 USB 3.0, 4 COM
- 32 Isolated DIO, 4 Mini PCIe/mSATA
- 10V to 36V DC-in with 80V Surge Protection
- Configurable Ignition Power Control
- Optional supports full function SUMIT A, B



Machine Vision



Vehicle Computing



Deep Learning



Telemedicine



Specifications

System

Processor	Quad Core Intel® Xeon®/Core™ i7/i5 Processor (Skylake-H)
Chipset	Intel® CM236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2133MHz SO-DIMM, up to 64GB (ECC/Non-ECC)
OS	Windows 10, Windows 8.1, Windows 7, Linux

I/O Interface

Serial	4 COM RS-232/422/485 (ESD 8kV)
USB	- 6 USB 3.0 (External) - 1 USB 2.0 (Internal)
Isolated DIO	ECS-9700 PEG : 32 Isolated DIO : 16 DI, 16 DO ECS-9600 PEG : 16 Isolated DIO : 8 DI, 8 DO
LED	Power, HDD, PoE, Wireless
SIM Card	4 SIM Card Socket (3 External, 1 Internal)

Expansion

Mini PCIe	4 Mini PCIe Socket : - 3 Full-size for PCIe/USB/External SIM Card/mSATA - 1 Full-size for PCIe/Internal SIM Card/mSATA
SUMIT A, B	2 SUMIT Slot (Optional)

Graphics

Graphics Processor	- Intel® HD Graphics P530/530 - Independent Graphics : By request
Interface	Up to 7 Display interfaces : - DVI-D : Up to 1920 x 1200 @ 60Hz - 2 DisplayPort : Up to 4096 x 2304 @ 60Hz - 1 VGA : Up to 1920 x 1200 @ 60Hz - By requested Graphics Card

Storage

SATA	4 SATA III support S/W RAID 0, 1, 5, 10 : - 3 SATA III (6Gbps) - 1 SATA III co-lay with Mini PCIe (6Gbps)
mSATA	4 mSATA connections : - 3 SATA III (Mini PCIe Type, 6Gbps) - 1 SATA III co-lay with SATA (Mini PCIe Type, 6Gbps)
Storage Device	- 1 CFast Socket, Push-in/Push-out Ejector - 2 Front-access 2.5" SSD/HDD Tray

Audio

Audio Codec	Realtek ALC885S-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 (ECS-9700 PEG)

LAN 3 to LAN 6	GigE IEEE 802.3at (25.5W/48V) PoE ¹ by Intel® I210
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Power

Power Input	10V to 36V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block
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 Mgmt.	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	260.0mm x 215.0mm x 79.0mm (10.24" x 8.46" x 3.11")
Weight	3.5 kg (7.72 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount (Optional) - 2U Rackmount (Optional)

Environment

Operating Temp.	-20°C to 45°C (-4°F to 113°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 45°C
Shock	IEC 61373
Vibration	IEC 61373
EMC	E13, CE, FCC, EN50155, EN50121-3-2

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Order Information

Model Name	CPU	GigE LAN	PoE GigE LAN	SSD	USB 3.0	COM	SIM	Isolated DIO	ECC
ECS-9700-505M PEG	Intel® Xeon® E3-1505M v5								Y
ECS-9700-820Q PEG	Intel® Core™ i7-6820EQ	6	4					32	N/A
ECS-9700-440Q PEG	Intel® Core™ i5-6440EQ			2	6	4	4		N/A
ECS-9600-505M PEG	Intel® Xeon® E3-1505M v5								Y
ECS-9600-820Q PEG	Intel® Core™ i7-6820EQ	2	N/A					16	N/A
ECS-9600-440Q PEG	Intel® Core™ i5-6440EQ								N/A

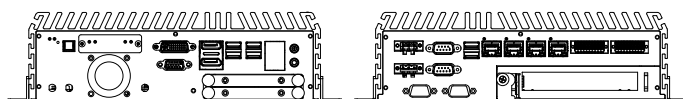
Accessories

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-280W-WT	280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-180W	180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-160W-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail Kit
Rack Mount	2U Rackmount Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

Unit : mm (inch)

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