

# ECS-9755/9655 GTX1050

Quad Core Intel® Xeon®/Core™ i7 Processor (Skylake-H) Embedded System with Intel® CM236 & NVIDIA GeForce® GTX 1050 Ti/GTX 1050, NVIDIA Pascal™ architecture, 6 GigE LAN with 4 PoE+, Dual 10 GigE LAN, 2 SSD Tray, 4 SIM, 6 USB 3.0, 4 COM, 32 Isolated DIO, Independent Graphics



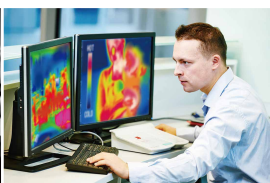
10GigE



- Dual 10 GigE LAN, up to 10Gbps data rate
- Quad Core Intel® Xeon®/Core™ i7 Processor with CM236
- 2 DDR4 2133MHz Memory, up to 32GB (ECC/Non-ECC)
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+
- 4 SIM Card Socket for 3G/4G/LTE/WiFi/GPRS/UMTS
- 10V to 36V DC-in with 80V Surge Protection
- Configurable Ignition Power Control
- NVIDIA GeForce® GTX10 Series graphics engine supports NVIDIA Pascal™ GPU architecture, up to 8K resolution
- Display : 1 VGA, 2 DVI, 1 HDMI and 3 DisplayPort, up to 6 independent HD displays
- 2 Front-access 2.5" SSD Tray, 6 USB 3.0, 4 COM
- 32 Isolated DIO, 4 Mini PCIe/mSATA



Machine Vision



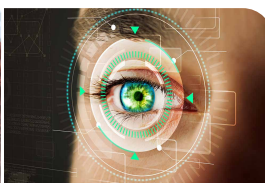
Embedded Workstation



Vehicle Computing



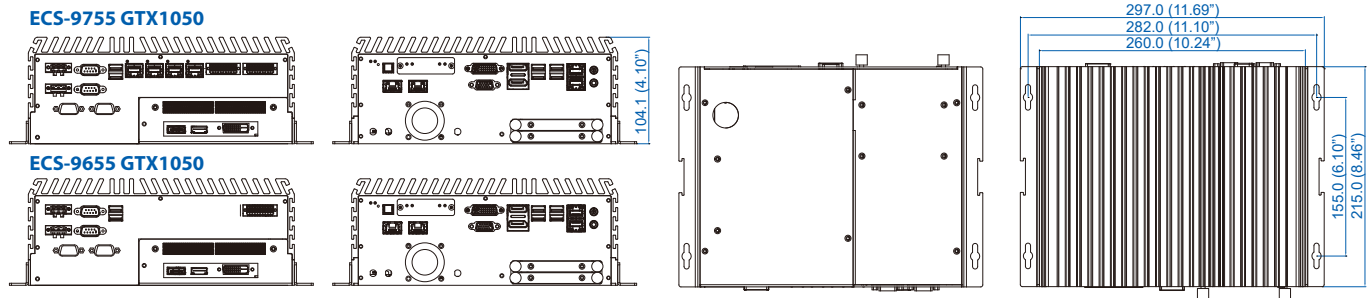
Telemedicine



Deep Learning



## Dimensions & Drawing Unit: mm (inch)



## Specifications

| System               |                                                                                                                                                                                                                                       | Ethernet                                |                                                                                  |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------|
| Processor            | Intel® Xeon® E3-1505M v5/Core™ i7-6820EQ Processor (Skylake-H)                                                                                                                                                                        | LAN 1                                   | Intel® I219LM GigE LAN supports iAMT 11.0                                        |
| Chipset              | Intel® CM236                                                                                                                                                                                                                          | LAN 2                                   | Intel® I210 GigE LAN                                                             |
| BIOS                 | AMI                                                                                                                                                                                                                                   | <b>PoE (ECS-9755)</b>                   |                                                                                  |
| SIO                  | IT8786E                                                                                                                                                                                                                               | LAN 3                                   | GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210                                |
| Memory               | 2 DDR4 2133MHz SO-DIMM, up to 32GB (ECC/Non-ECC)                                                                                                                                                                                      | LAN 4                                   | GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210                                |
| OS                   | Windows 10, Windows 8.1, Windows 7, Linux                                                                                                                                                                                             | LAN 5                                   | GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210                                |
| <b>I/O Interface</b> |                                                                                                                                                                                                                                       | LAN 6                                   | GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210                                |
| Serial               | 4 COM RS-232/422/485 (ESD 8KV)                                                                                                                                                                                                        | <b>10G Ethernet (ECS-9755/ECS-9655)</b> |                                                                                  |
| USB                  | • 6 USB 3.0 (External)<br>• 1 USB 2.0 (Internal)                                                                                                                                                                                      | LAN 7/LAN 3                             | Intel® X550-AT2 10 GigE LAN                                                      |
| Isolated DIO         | 32 Isolated DIO : 16 DI, 16 DO                                                                                                                                                                                                        | LAN 8/LAN 4                             | Intel® X550-AT2 10 GigE LAN                                                      |
| LED                  | Power, HDD, PoE, Wireless                                                                                                                                                                                                             | <b>Power</b>                            |                                                                                  |
| SIM Card             | 4 SIM Card Socket (3 External, 1 Internal)                                                                                                                                                                                            | Power Input                             | 10V to 36V, DC-in                                                                |
| <b>Expansion</b>     |                                                                                                                                                                                                                                       | Power Interface                         | 3-pin Terminal Block : V+, V-, Frame Ground                                      |
| Mini PCIe            | 4 Mini PCIe Socket :<br>• 3 Full-size for PCIe/USB/External SIM Card/mSATA<br>• 1 Full-size for PCIe/Internal SIM Card/mSATA                                                                                                          | Ignition Control                        | 16 Mode (Internal)                                                               |
| <b>Graphics</b>      |                                                                                                                                                                                                                                       | Remote Switch                           | 3-pin Terminal Block                                                             |
| Processor            | • Intel® HD Graphics P530/530<br>• NVIDIA GeForce® GTX 1050                                                                                                                                                                           | Surge Protection                        | Up to 80V/1ms Transient Power                                                    |
| Interface            | 7 Display interfaces :<br>• 2 DVI : Up to 1920 x1200 @ 60 Hz<br>• 1 DisplayPort : Up to 7680 x 3840 @ 60Hz<br>• 2 DisplayPort : Up to 4096 x 2304 @ 60Hz<br>• 1 VGA : Up to 1920 x 1200 @ 60Hz<br>• 1 HDMI : Up to 4096 x 2160 @ 60Hz | <b>Others</b>                           |                                                                                  |
| <b>Storage</b>       |                                                                                                                                                                                                                                       | TPM                                     | Optional Infineon SLB9665 supports TPM 2.0, LPC Interface                        |
| SATA                 | 4 SATA III support S/W RAID 0, 1, 5, 10 :<br>• 3 SATA III (6Gbps)<br>• 1 SATA III co-lay with Mini PCIe (6Gbps)                                                                                                                       | Watchdog Timer                          | Reset : 1 to 255 sec./min. per step                                              |
| mSATA                | 4 mSATA connections :<br>• 3 SATA III (Mini PCIe Type, 6Gbps)<br>• 1 SATA III co-lay with SATA (Mini PCIe Type, 6Gbps)                                                                                                                | Smart Management                        | Wake on LAN, PXE supported                                                       |
| Storage Device       | 1 CFast Socket, Push-in/Push-out Ejector<br>2 Front-access 2.5" SSD/HDD Tray                                                                                                                                                          | HW Monitor                              | Monitoring temperature, voltages. Auto throttling control when CPU overheats.    |
| <b>Audio</b>         |                                                                                                                                                                                                                                       | <b>Mechanical</b>                       |                                                                                  |
| Audio Codec          | Realtek ALC888S-VD, 7.1 Channel HD Audio                                                                                                                                                                                              | Dimensions (WxLxH)                      | 260mm x 215mm x 104mm (10.2" x 8.5" x 4.1")                                      |
| Audio Interface      | 1 Mic-in, 1 Line-out                                                                                                                                                                                                                  | Weight                                  | 4.7 kg (10.36 lb)                                                                |
|                      |                                                                                                                                                                                                                                       | Mounting                                | • Wallmount by mounting bracket<br>• DIN Rail Mount (Optional)                   |
|                      |                                                                                                                                                                                                                                       | <b>Environment</b>                      |                                                                                  |
|                      |                                                                                                                                                                                                                                       | Operating Temp.                         | -20°C to 55°C (-4°F to 131°F)                                                    |
|                      |                                                                                                                                                                                                                                       | Storage Temp.                           | -40°C to 85°C (-40°F to 185°F)                                                   |
|                      |                                                                                                                                                                                                                                       | Humidity                                | 5% to 95% Humidity, non-condensing                                               |
|                      |                                                                                                                                                                                                                                       | Relative Humidity                       | 95% at 55°C                                                                      |
|                      |                                                                                                                                                                                                                                       | Shock                                   | • IEC 60068-2-27<br>• SSD : 50G @ wallmount, Half-sine, 11ms<br>• IEC 60068-2-64 |
|                      |                                                                                                                                                                                                                                       | Vibration                               | • SSD : 5Grms, 5Hz to 500Hz, 3 Axis                                              |
|                      |                                                                                                                                                                                                                                       | EMC                                     | E13, CE, FCC, EN50155, EN50121-3-2                                               |

## Order Information

|                         |                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------|
| ECS-9755-505M-GTX1050T  | • ECS-9700, Quad Core Intel® Xeon® E3-1505M v5, NVIDIA GeForce® GTX 1050 Ti, 6 GigE LAN w/4 PoE+, 2 10G RJ45 (ECC supported) |
| ECS-9755-505M-GTX1050   | • ECS-9700, Quad Core Intel® Xeon® E3-1505M v5, NVIDIA GeForce® GTX 1050, 6 GigE LAN w/4 PoE+, 2 10G RJ45 (ECC supported)    |
| ECS-9755-820Q-GTX1050T  | • ECS-9700, Quad Core Intel® Core™ i7-6820EQ, NVIDIA GeForce® GTX 1050 Ti, 6 GigE LAN w/4 PoE+, 2 10G RJ45                   |
| ECS-9655-505M-GTX1050T  | • ECS-9600, Quad Core Intel® Xeon® E3-1505M v5, NVIDIA GeForce® GTX 1050 Ti, 2 GigE LAN, 2 10G RJ45 (ECC supported)          |
| ECS-9655-505M-GTX1050   | • ECS-9600, Quad Core Intel® Xeon® E3-1505M v5, NVIDIA GeForce® GTX 1050, 2 GigE LAN, 2 10G RJ45 (ECC supported)             |
| ECS-9655-820Q-GTX1050T  | • ECS-9600, Quad Core Intel® Core™ i7-6820EQ, NVIDIA GeForce® GTX 1050 Ti, 2 GigE LAN, 2 10G RJ45                            |
| ECS-9655-820Q-GTX1050   | • ECS-9600, Quad Core Intel® Core™ i7-6820EQ, NVIDIA GeForce® GTX 1050, 2 GigE LAN, 2 10G RJ45                               |
| 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-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                                                                                                               |
| 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                                              |
| 3G Module               | • Mini PCIe 3G/GPS Module with Antenna                                                                                       |
| 4G Module               | • Mini PCIe 4G/GPS Module with Antenna                                                                                       |
| WiFi & Bluetooth Module | • Mini PCIe WiFi & Bluetooth Module with Antenna                                                                             |

ECS-9755/9655 GTX1050-20210322

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