

# ECX-1400 GTX1070

Intel® Xeon®/Core™ i7/i5/i3 GPU Computing System with Intel® C246 & NVIDIA® GeForce® GTX 1070, NVIDIA® Pascal™ architecture, 6 GigE LAN with 4 PoE+, 4 Front-access SSD Tray, 6 USB 3.1, 2 M.2 Socket, 3 SIM, 32 Isolated DIO, High Performance, Independent Graphics



## Features

- 8th Generation Intel® Xeon®/Core™ i7/i5/i3 (Coffee Lake-S) with workstation-grade Intel® C246 Chipset
- 2 DDR4 2666MHz Memory, up to 64GB (ECC/Non-ECC)
- NVIDIA® GeForce® GTX 10 Series graphics engine supports NVIDIA® Pascal™ GPU architecture, up to 8K resolution
- 1 VGA, 1 HDMI, 2 DVI & 5 DisplayPort interfaces support up to 7 independent HD displays
- Multiple external USB 3.1 Gen 2 support up to 10Gbps data transfer
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+
- 4 2.5" SSD trays, RAID 0, 1, 5, 10 supported
- 32 Isolated DIO, 3 External SIM Socket, 6 USB 3.1, 4 COM
- 12V to 36V DC-in, 80V Surge Protection, Ignition Control



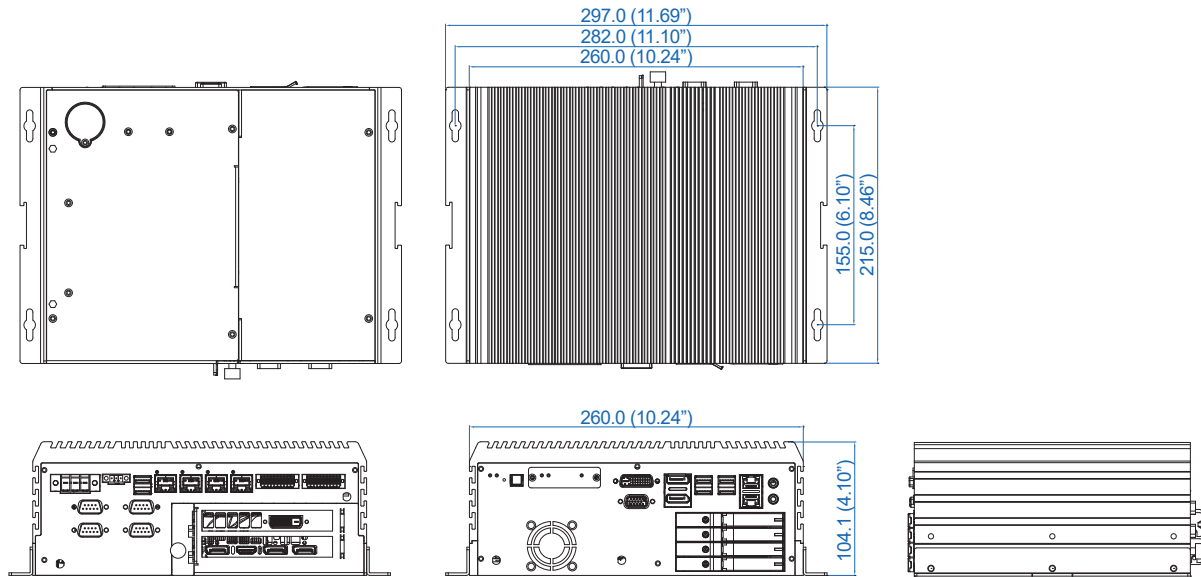
## Specifications

| System             |                                                                                                                                                                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor          | 6 Cores Intel® Xeon®/Core™ i7/i5/i3 Processor (Coffee Lake-S)                                                                                                                                                                                                      |
| Chipset            | Intel® C246                                                                                                                                                                                                                                                        |
| BIOS               | AMI                                                                                                                                                                                                                                                                |
| SIO                | IT8786E                                                                                                                                                                                                                                                            |
| Memory             | 2 DDR4 2666MHz SO-DIMM, up to 64GB (ECC/Non-ECC)                                                                                                                                                                                                                   |
| I/O Interface      |                                                                                                                                                                                                                                                                    |
| Serial             | 4 COM RS-232/422/485 (ESD 8KV)                                                                                                                                                                                                                                     |
| USB                | <ul style="list-style-type: none"><li>6 USB 3.1 (External)</li><li>1 USB 2.0 (Internal)</li></ul>                                                                                                                                                                  |
| Isolated DIO       | 32 Isolated DIO : 16 DI, 16 DO                                                                                                                                                                                                                                     |
| LED                | Power, HDD, PoE, Wireless                                                                                                                                                                                                                                          |
| SIM Card           | 3 External SIM Card Socket                                                                                                                                                                                                                                         |
| Expansion          |                                                                                                                                                                                                                                                                    |
| Mini PCIe          | 2 Full-size for PCIe/USB/External SIM Card/mSATA                                                                                                                                                                                                                   |
| M.2                | 1 M.2 Key E Socket                                                                                                                                                                                                                                                 |
| Graphics           |                                                                                                                                                                                                                                                                    |
| Graphics Processor | <ul style="list-style-type: none"><li>Intel® UHD Graphics P630/630</li><li>NVIDIA® GeForce® GTX 1070</li></ul>                                                                                                                                                     |
| Interface          | <ul style="list-style-type: none"><li>1 VGA : Up to 1920 x 1200 @60Hz</li><li>1 HDMI : Up to 4096 x 2304 @60Hz</li><li>2 DVI-D : Up to 1920 x 1200 @60Hz</li><li>3 DisplayPort : Up to 7680 x 3840 @60Hz</li><li>2 DisplayPort : Up to 4096 x 2304 @60Hz</li></ul> |
| Storage            |                                                                                                                                                                                                                                                                    |
| SATA               | 4 SATA III (6Gbps) support S/W RAID 0, 1, 5, 10                                                                                                                                                                                                                    |
| mSATA              | 2 SATA III (Mini PCIe Type, 6Gbps)                                                                                                                                                                                                                                 |
| M.2                | <ul style="list-style-type: none"><li>1 M.2 Key B Socket</li></ul>                                                                                                                                                                                                 |
| Storage Device     | <ul style="list-style-type: none"><li>1 CFast Socket, Push-in/Push-out Ejector</li><li>4 Front-access 2.5" SSD/HDD Tray</li></ul>                                                                                                                                  |
| 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 12.0                                                                                                                                                                                                                          |
| LAN 2              | Intel® I210 GigE LAN                                                                                                                                                                                                                                               |
| PoE                |                                                                                                                                                                                                                                                                    |
| LAN 3 to 6         | GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I350                                                                                                                                                                                                                  |

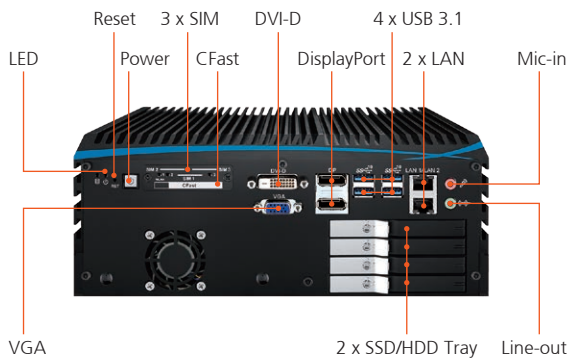
| Power                 |                                                                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Input           | 12V 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 Management      | Wake on LAN, PXE supported                                                                                                                                     |
| HW Monitor            | Monitoring temperature, voltages. Auto throttling control when CPU overheats.                                                                                  |
| Software Support      |                                                                                                                                                                |
| OS                    | Windows 10, Linux                                                                                                                                              |
| Mechanical            |                                                                                                                                                                |
| Dimensions            | 260mm x 215mm x 104.1mm (10.24" x 8.46" x 4.10")                                                                                                               |
| Weight                | 5.8 kg (12.79 lb)                                                                                                                                              |
| Mounting              | <ul style="list-style-type: none"><li>Wallmount by mounting bracket</li><li>DIN Rail Mount (Optional)</li></ul>                                                |
| Environment           |                                                                                                                                                                |
| Operating Temperature | <b>35W TDP CPU</b> : -20°C to 60°C (-4°F to 140°F)<br><b>65W TDP CPU</b> : -20°C to 55°C (-4°F to 131°F)<br><b>80W TDP CPU</b> : -20°C to 45°C (-4°F to 113°F) |
| Storage Temperature   | -40°C to 85°C (-40°F to 185°F)                                                                                                                                 |
| Humidity              | 5% to 95% Humidity, non-condensing                                                                                                                             |
| Relative Humidity     | 95% @ 60°C                                                                                                                                                     |
| Shock                 | <ul style="list-style-type: none"><li>IEC 60068-2-27</li><li>SSD : 50G @ wallmount, Half-sine, 11ms</li></ul>                                                  |
| Vibration             | <ul style="list-style-type: none"><li>IEC 60068-2-64</li><li>SSD : 5Grms, 5Hz to 500Hz, 3 Axis</li></ul>                                                       |
| EMC                   | CE, FCC, EN50155, EN50121-3-2                                                                                                                                  |

## Dimensions

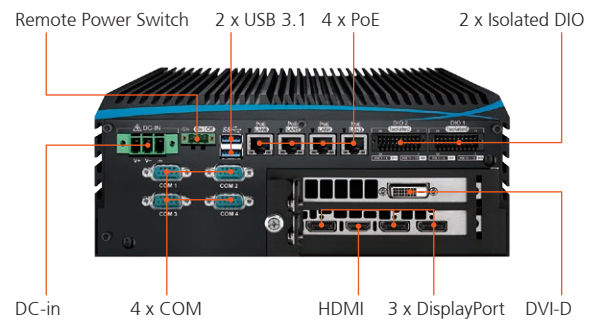
Unit : mm/ inch



## Front I/O



## Rear I/O



## Order Information

|                         |                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>ECX-1400-GTX1070</b> | ECX-1400, NVIDIA® GeForce® GTX 1070, 6 GigE LAN w/4 PoE+, 4 SSD Tray, 6 USB 3.1, 4 COM, 3 SIM, 32 Isolated DIO |
|-------------------------|----------------------------------------------------------------------------------------------------------------|

### Accessories

|                             |                                                                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>DDR4 32G</b>             | Certified DDR4 32GB 2666MHz RAM                                                                                      |
| <b>DDR4 16G</b>             | Certified DDR4 16GB 2666/2400/2133MHz RAM                                                                            |
| <b>DDR4 8G</b>              | Certified DDR4 8GB 2666/2400/2133MHz RAM                                                                             |
| <b>DDR4 4G</b>              | Certified DDR4 4GB 2666/2400/2133MHz RAM                                                                             |
| <b>PWA-280WB-WT</b>         | 280W, 24V, 85V AC to 264V AC Power Adaptor with 3-pin Terminal Block (7.62mm pitch), Wide Temperature -30°C to +70°C |
| <b>PWS-360W</b>             | 360W, 24V, 90V AC to 264V AC Power Supply                                                                            |
| <b>PWS-480W-WT</b>          | 480W, 24V, 90V AC to 305V AC Power Supply, Wide-Temp, IP65                                                           |
| <b>VESA Mount</b>           | VESA Mounting Kit                                                                                                    |
| <b>DIN-RAIL Kit</b>         | DIN Rail and VESA Mounting Kit                                                                                       |
| <b>TMK2-20P-100</b>         | Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm                                                          |
| <b>TMK2-20P-500</b>         | Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm                                                          |
| <b>TMB-TMBK-20P</b>         | Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting                                        |
| <b>4G Module</b>            | Mini PCIe 4G/GPS Module with Antenna                                                                                 |
| <b>WiFi &amp; Bluetooth</b> | WiFi & Bluetooth Module with Antenna                                                                                 |

### CPU List

| Series       | CPU      | Cache (MB) | Turbo Freq. (GHz) | TDP (W) | ECC Memory |
|--------------|----------|------------|-------------------|---------|------------|
| Intel® Xeon® | E-2176G  | 12         | 4.6               | 80      | Yes        |
|              | E-2124G  | 8          | 4.5               | 71      |            |
| Intel® Core™ | i7-8700  | 12         | 4.6               | 65      | NA         |
|              | i7-8700T |            | 4.0               | 35      |            |
|              | i5-8500  | 9          | 4.1               | 65      | NA         |
|              | i5-8500T |            | 3.5               | 35      |            |
|              | i3-8100  | 6          | 3.6               | 65      | Yes        |
|              | i3-8100T |            | 3.1               | 35      |            |