### Features

- Intel® Core™ i7-8700T/i7-8700 & Intel® Xeon® E-2278GEL
- 2x DDR4 2133/2400 SO-DIMM, Max. 64GB
- 2x RJ45 GbE LAN, 4x PoE, 4x USB3.0, 6x COM Ports, 8x DI & 8x DO
- 2x Removable HDD/SSD External Slot w/ RAID, 1x mSATA
- 1x PCIe*16, 1x PCIe*4, 1x Mini-PCIe (PCIe + USB2.0) w/ Nano-SIM, 1x B Key M.2 (PCIe + USB3.0) w/ Nano-SiM

### Specifications

<table>
<thead>
<tr>
<th>Processor System</th>
<th>Support Intel® Core™ i7-8700T/i7-8700 &amp; Intel® Xeon® E-2278GEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Frequency</td>
<td>3.2GHz</td>
</tr>
<tr>
<td>BIOS</td>
<td>AMI 256Mbit SPI Flash BIOS</td>
</tr>
<tr>
<td>Chipset</td>
<td>FH82C246</td>
</tr>
<tr>
<td>Fanless</td>
<td>Yes (see *1)</td>
</tr>
<tr>
<td>Memory Technology</td>
<td>DDR4 2133/2400 SO-DIMMM</td>
</tr>
<tr>
<td>Max. Capacity</td>
<td>64 GB</td>
</tr>
<tr>
<td>Socket</td>
<td>2x 260-pin SO-DIMMM</td>
</tr>
<tr>
<td>Graphic Controller</td>
<td>Intel® UHD Graphics 630</td>
</tr>
<tr>
<td>Audio Codec</td>
<td>TSI 92HD73C</td>
</tr>
<tr>
<td>Interface</td>
<td>1x Mic-in, 1x Line-out</td>
</tr>
<tr>
<td>Ethernet Controller</td>
<td>Intel i210T</td>
</tr>
<tr>
<td>Speed</td>
<td>10/100/1000 Mbps</td>
</tr>
<tr>
<td>Interface</td>
<td>2x GbE RJ45, 4x PoE RJ45 @IEEE 802.3at (Total PoE Budget of 60W)</td>
</tr>
<tr>
<td>Storage Type</td>
<td>SATA III</td>
</tr>
<tr>
<td>Installation</td>
<td>2x Removable HDD/SSD External Slot w/ RAID</td>
</tr>
<tr>
<td>I/O Serial Port</td>
<td>6x D-Sub RS232/422/485</td>
</tr>
<tr>
<td>Digital I/O</td>
<td>8x DI, 8x DO (12V@100mA)</td>
</tr>
<tr>
<td>USB 2.0</td>
<td>-</td>
</tr>
<tr>
<td>USB 3.0</td>
<td>4x Type A</td>
</tr>
<tr>
<td>Power-On/Reset Button</td>
<td>1x Power-On, 1x Reset Button</td>
</tr>
<tr>
<td>Remote Power Switch</td>
<td>1x 2-pin Remote Power Switch</td>
</tr>
<tr>
<td>LED</td>
<td>Power/Storage/LTE/Wifi</td>
</tr>
<tr>
<td>Expansion Interface</td>
<td></td>
</tr>
</tbody>
</table>

**Mini-PCIe**
- 1x Mini-PCIe (PCIe + USB2.0) w/ Nano-SiM

**PCIe**
- 1x PCIe*16 & 1x PCIe*4

**M.2**
- 1x B Key M.2 (PCIe + USB3.0) w/ Nano-SiM

**Watchdog Timer**
- Watchdog Timer 1~255 Level Time Interval System Reset, Software Programmable

**Power**
- Power Type: ATX
- Power Supply Voltage: 9~30 Vdc
- Connector: 1x 4-pin Terminal Block
- Power Consumption (Idle): 29.5W + 12Voc-in (see *2)
- Power Consumption (Full Load): 121.6W + 12Voc-in (see *2)

**Environment**
- Operating Temperature: -20°C~55°C (35W CPU)
- -20°C~45°C (65W CPU)
- Storage Temperature: -40°C~70°C
- Relative Humidity: 10%~90% (Non-condensing)
- Vibration: IEC 60068-2-64, 0.5Grms, random 5~500 Hz, 40 min/axis

**Mechanical**
- Dimension (W x H x D): 275 x 115 x 225 mm
- Construction: Aluminum Extrusion & SGCC
- Weight: 6.2 KG
- Mounting: Wallmount
- Driver Support: Windows 10 IoT 64bits Series Ubuntu 16 and Above Fedora 25 and Above CentOS 7 and Above

**Linux**
- Kernel 3.12

**Certification**
- EMC: CE/FCC, Class A
- Safety: None

*1 Active cooler may be needed when a high-power add-on card is plugged into PCI express expansion slot.

*2 Configuration as Intel Core i7-8700 CPU, 8GB DDR4 system memory, 64MB mSATA, 1TB 2.5” SSD, 2TB 2.5” SSD, 180W AC/DC adaptor.
**Product I/O View**

- A: COM x3
- B: LAN x2
- C: USB 3.0 x3
- D: LINE-out/MIC-in
- E: Remote Power
- F: PoE x4
- G: Removable HDD/SSD Slot x2
- H: Status LED
- I: On/Off & Reset
- J: DIO
- K: DP
- L: HDMI x2
- M: COM x3
- N: DC-in
- O: Antennas
- P: PCIe x2

**Dimensions (W x H x D) 275 x 115 x 225 mm (10.8” x 4.5” x 8.9”)**

**Ordering Information**

LEC-2290A

Intel® Core™ i7-8700T/i7-8700 or Intel Xeon E-2278GEL CPU w/ 2*DDR4 SO-DIMM, 2*HDMI, 1*DP, 2*GbE LAN, 4*GbE PoE, 6* RS-232/422/485, 4*USB 3.0, DIO, Audio, 1*mSATA, 2*External 2.5” SATA Drive Bay, 1*MiniPCI-E Slot w/ 1*Sim Card Socket, 1* M.2 Slot w/ 1*Sim Card Socket, Support 1* Removable M.2 w/ Dual SIM Carrier, 1x PCIe*16 & 1x PCIe*4 Expansion, +9~30VDC Input