

Preliminary



## KEY FEATURES

- Latest and Powerful Intel® Atom® x6000E Processor
- Fan-less and Rugged Design, Wide Temperature Operation (-40 °C to 70 °C)
- 6-36VDC Wide Range Power Inputs
- Most Flexible IOs and Expansion for Industrial Applications
- Intel® TCC and TSN Support for Real-Time Computing
- DIN Rail or Wall Mount Options

## SPECIFICATIONS

### System Core

|           |  |
|-----------|--|
| Processor | Intel® Elkhart Lake SoC Processors<br>iEP-5000G (x6425RE, QC, 1.9GHz, 12W)<br>iEP-5001G (x6414RE, QC, 1.5GHz, 9W)<br>iEP-5002G (x6212RE, DC, 1.2GHz, 6W) |
| Video     | 1 x HDMI 2.0b, 1 x VGA   |
| Memory    | 2 x DDR4 3200MHz SO-DIMM, up to 32GB (In-Band ECC)   |

### I/O Interface

|                 |  |
|-----------------|--|
| Ethernet        | 3 x 2.5 GbE (Maxliner GPY215), Data rate default setting is 1Gbps*           |
| PoE (Option)    | 2 x PoE** (Intel I210AT, Option)   |
| Serial Port     | 3 x COM (RS-232/422/485 BIOS select)   |
| USB             | 2 x USB 3.2 Gen1<br>2 x USB 2.0  |
| Digital I/O     | 4DI/4DOs   |
| Audio           | 1 x Mic in<br>1 x Line out   |
| CANBus (Option) | 1 x CANBus connector supports up to<br>2 CANBus devices via additional cable |

### Expansion

|                      |  |
|----------------------|--|
| SIM                  | 1 x External SIM card socket for 4G LTE or 5G module   |
| RF& Antenna (Option) | M.2 Wi-Fi 5 module supports IEEE 802.11 a/b/g/n/ac + BT 5.1 (Option)<br>M.2 Wi-Fi 6E module supports IEEE 802.11 a/b/g/n/ac/ax + BT 5.2 (Option)<br>2 x 4G LTE antenna + 2 x Wi-Fi antenna (Option)<br>4 x 5G antenna + 2 x Wi-Fi antenna (Option) |
| M.2 Socket           | 1 x M.2 Key E Socket (2230) for Wi-Fi module<br>1 x M.2 Key B Socket (3042/3052) for 4G LTE module / 5G module   |

### Manageability / Security

|               |        |
|---------------|--------|
| Manageability | WDT    |
| Security      | TPM2.0 |

### Power Supply

|                           |  |
|---------------------------|--|
| DC Input                  | 6-36 VDC, 80V Surge Protection<br>Supports Latch Adaptor                             |
| AC to DC Adaptor (Option) | AC input 100-240Vac, 1.5A 50-60Hz, DC output 19V, 3.42A,<br>65W Adaptor (Latch type) |

### Storage Device

|               |  |
|---------------|--|
| SD Slot       | 1x Micro SD card slot, supports SDXC V3.01               |
| SATA (Option) | 1 x 2.5" 9.5mm SATA3 HDD or SSD                          |
| M.2 Socket    | 1 x M.2 Key M Socket (2280) with PCIe2/SATA3 for Storage |

### Mechanical

|            |   |
|------------|---|
| Dimensions | 58mm (W) x 125mm (D) x 157mm (H)                |
| Indicator  | 1 x SATA / NVMe Storage LED, 1 x Wi-Fi / BT LED |
| Function   | 1 x Power Button, 1 x Clear CMOS Button         |
| Net Weight | 1.3kg   |
| Mounting   | DIN-Rail or Wall mounting                       |

### Environmental

|                       |  |
|-----------------------|--|
| Operating Temperature | -40°C ~ 70°C (-40°F~158°F)                           |
| Storage Temperature   | -40°C ~ 85°C (-40°F~185°F)                           |
| Humidity              | ~95% @ 40°C (non-condensing)                         |
| Vibration             | Operating: 5 Grms, 5-500 Hz, 3 axes with SSD         |
| ESD                   | Contact +/-8 KV, Air +/-15 KV                        |
| Shock                 | Operating 50 Grms, half sine 11 ms duration with SSD |
| EMC                   | CE and FCC Class A (EN61000-6-4/-2)                  |
| Safety                | UL, CB   |

### Add-on Feature / OS Support

|                      |                              |
|----------------------|------------------------------|
| Real-Time Enablement | TSN, TCC support under YOCTO |
| OS Support           | Windows 10, Linux            |

| Order Information | iEP-5000G/<br>iEP-5001G/<br>iEP-5002G                            | iEP-5000G-POE   | iEP-5000G-CAN   |
|-------------------|--|-----------------|-----------------|
| 2.5" Storage      | Build to Order   | N/A             | Build to Order  |
| Wifi/BT           | Support by additional Wifi/BT Kit                                |                 |                 |
| 4G/LTE or 5G      | Support by additional 4G/LTE Kit<br>Support by additional 5G Kit | N/A             | N/A             |
| PoE               | N/A  | Default Support | N/A             |
| CANBus            | N/A  | N/A             | Default Support |

\* Data rate of 2.5G IC reaches 1.9Gbps only.  
LAN IC Device ID & Name is changed when system back from S3/S4,  
Current FW and driver may change in the future.  
LAN LED can not work properly.  
TSN works only under 1Gbps.  
PXE works only under 1Gbps for LAN3 port  
\*\*PoE operating temp. and power delivery spec TBD