



## Middle Range Embedded Computer



# AF208

## ALDER LAKE-N SEMI-INDUSTRIAL COMPUTER



Intel® Alder Lake-N  
N-series/Core™ processors



1 x DP (4096 x 2160 @60 Hz)  
1 x HDMI (4096 x 2160 @60 Hz)



Support Wi-Fi/BT module



Fanless design  
Wide temperature and voltage

### CPU

|                         |                                                      |
|-------------------------|------------------------------------------------------|
| <b>CPU</b>              | Intel® Processor N97<br>Intel® Atom X7211E Processor |
| <b>Turbo Frequency</b>  | 3.60 GHz /3.20 GHz                                   |
| <b>Chipset</b>          | SoC                                                  |
| <b>Processing Units</b> | 4 Cores /2 Cores                                     |
| <b>Base Power</b>       | 12 W /6 W                                            |

### Network

|                           |                                                                         |
|---------------------------|-------------------------------------------------------------------------|
| <b>Network Controller</b> | 1 x Intel i226-V Gigabit Ethernet<br>1 x Intel i210-AT Gigabit Ethernet |
| <b>Ethernet Interface</b> | 1 x 2.5 GbE RJ45, 1 x 1 GbE RJ45                                        |
| <b>Wi-Fi/BT</b>           | 1 x E-Key M.2 (2230) for Wi-Fi/BT<br>Support Wi-Fi 5/6/6E (CNVi)        |
| <b>Mobile Network</b>     | NA                                                                      |

### System

|                              |                                                          |
|------------------------------|----------------------------------------------------------|
| <b>System Memory</b>         | 8/16 GB, Onboard LPDDR5-4800 MHz, Single-channel         |
| <b>Storage</b>               | 1 x M-Key M.2 (2280) for PCIe3.0 X4 SSD                  |
| <b>TPM</b>                   | Optional: TPM2.0                                         |
| <b>Watchdog Timer</b>        | Yes                                                      |
| <b>Auto Power On</b>         | Yes                                                      |
| <b>RTC</b>                   | Set up independently every day, a week as a cycle        |
| <b>Power Requirement</b>     | Lockable DC-IN, 12~24 V, 45 W                            |
| <b>Dimensions</b>            | 160 mm x 130 mm x 60 mm (6.30" x 5.12" x 2.36")          |
| <b>Construction</b>          | Metal, Grey                                              |
| <b>Cooling System</b>        | Fanless, passive cooling                                 |
| <b>Operating System</b>      | Windows 11 (64bit) /Linux Ubuntu (64bit)                 |
| <b>Operating Temperature</b> | -20°C ~60°C (-4°F~140°F) @0.7m/s Air Flow <sup>(1)</sup> |
| <b>Humidity</b>              | 10% ~ 90% @45°C (non-condensing)                         |
| <b>Storage Temperature</b>   | -40°C ~80°C (-40°F~176°F) not include the package        |
| <b>Certifications</b>        | CE, FCC Class B, UKCA                                    |

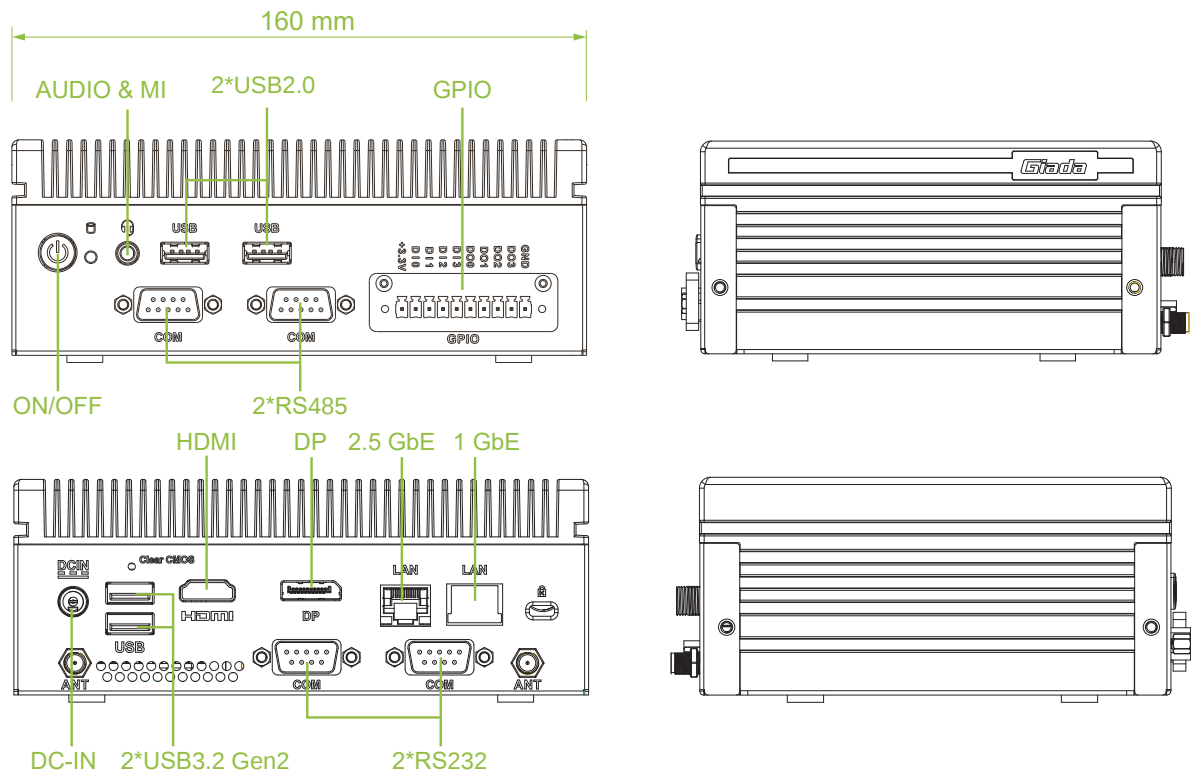
### Display

|                                |                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------|
| <b>GPU</b>                     | Intel® UHD Graphics                                                                  |
| <b>Graphic Engine</b>          | DirectX 12.1, OpenGL 4.6, OpenCL 3.0,<br>8K 60fps 12b 4:2:0 HEVC/VP9/SCC             |
| <b>Display Interface</b>       | 1 x HDMI2.0 (Max.4096 x 2190 @60 Hz)<br>1 x DP1.2 (Max.4096 x 2160 @60 Hz) colay VGA |
| <b># of Displays Supported</b> | 2                                                                                    |

### I/O interface

|                    |                                         |
|--------------------|-----------------------------------------|
| <b>USB</b>         | 2 x USB3.2 Gen2 (10 Gbps), 2 x USB2.0   |
| <b>Serial Port</b> | 2 x RS232, 2 x RS485                    |
| <b>Audio</b>       | 1 x 2-in-1 headset (MIC-IN & AUDIO-OUT) |
| <b>Button</b>      | 1 x Power on, 1 x CLR-CMOS              |
| <b>GPIO</b>        | 10pin GPIO (4 x GPI, 4 x GPO)           |
| <b>Antenna</b>     | 2 x Connector for Wi-Fi/BT              |

## Dimensions and Drawing



## Order information

|                             |                                                                           |
|-----------------------------|---------------------------------------------------------------------------|
| <b>AF208-N9753N0G-GIA</b>   | CPU: Intel® Processor N97<br>Memory: 8 GB, LPDDR5, Single-channel         |
| <b>AF208-7211E53N0G-GIA</b> | CPU: Intel® Atom X7211E Processor<br>Memory: 8 GB, LPDDR5, Single-channel |
| <b>Packing List</b>         | 2 x Wi-Fi Antenna,<br>1 x AC Power Cable, 1 x AC Power Adapter            |
| <b>Package</b>              | Carton, EPE                                                               |

<sup>(1)</sup> If the device operates at ambient temperature above 50 °C for a long time, it is recommended to use wide-temperature memory and storage.

## Optional items

|                                 |                                                                                                                                                                                                            |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mounting</b>                 | Wall-mounting Kit (JC283)                                                                                                                                                                                  |
| <b>Wi-Fi/BT Module</b>          | <b>Wi-Fi 5 (802.11ac):</b> Intel® Wireless-AC 9260, Intel® Wireless-AC 9560<br><b>Wi-Fi 6 (802.11ax):</b> Intel® Wi-Fi 6 AX200, Intel® Wi-Fi 6 AX201,<br><b>Wi-Fi 6E (802.11ax):</b> Intel® Wi-Fi 6E AX210 |
| <b>Operating System License</b> | Windows 11 (64bit)                                                                                                                                                                                         |

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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