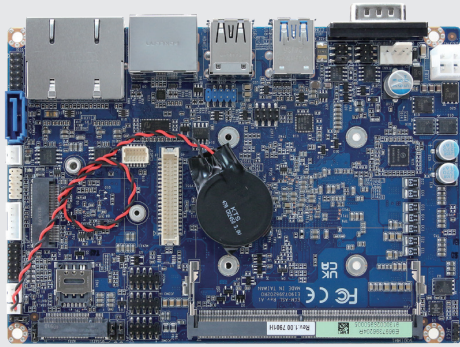


# ECM-ASL

Intel® Processor N97, Intel® Core™ i3-N305 Processor & Intel Atom® x7000RE series 3.5" Micro Module



## Features

- Onboard Intel® Processor N97, and Intel® Core™ i3-N305 Processor, Intel Atom® x7000RE series processors
- Bottom Layer Soldered Processor
- Triple Display, DP 1.4a, HDMI 2.0b, 1 x 2CH LVDS/eDP
- Dual Intel® Gigabit Ethernet, 2.5GbE
- Dual Expansion Slot, M.2 Key-B, M.2 Key-E
- DC in +9V ~ +36V



HDMI



DP



DDR5  
SO-DIMM



USB 3.2



RS232/422/485

## Specifications

### System Information

|                    |   |
|--------------------|---|
| Processor          | Onboard Intel® Processor N97, and Intel® Core™ i3-N305 Processor, Intel Atom® x7000RE series processors |
| System Memory      | 1 x 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 16GB Max.                                       |
| I/O Chipset        | EC iTE IT5782VG   |
| Watchdog Timer     | H/W Reset, 1sec. ~ 65535sec and 1sec. or 1min./step   |
| BIOS               | AMI BIOS, 256Mbit SPI Flash ROM   |
| H/W Status Monitor | CPU temperature monitoring<br>Voltages monitoring<br>CPU fan speed control                              |
| TPM                | Onboard NuvoTon_NPCT750AABYX (for standard temp) & NPCT754AABYX (for extend temp) supports TPM 2.0      |
| Board              | 3.5"  |

### Expansion

|           |  |
|-----------|--|
| Expansion | 1 x M.2 Type B slot for 3042/3052/2242 size (PCIe.x1+USB 3.2 GEN1 + USB 2.0)<br>1 x M.2 Type E 2230 support CNVi WiFi module (1 x PCI-e x1 & USB 2.0 Signal) |
|-----------|--|

### Storage

|         |                                  |
|---------|----------------------------------|
| Storage | 1 x M.2 (Type B)<br>1 x SATA III |
|---------|----------------------------------|

### Display

|                    |  |
|--------------------|--|
| Graphic Chipset    | Intel® UHD Graphics  |
| Spec. & Resolution | HDMI 2.0b Max resolution 4096 x 2160 @ 60Hz<br>DP 1.4a Max resolution 4096 x 2160 @ 60Hz<br>LVDS 1920 x 1080 Dual channel 18/24-bits or eDP 1920 x 1080 @ 60Hz (2 Lanes) |
| Multiple Display   | Triple Display   |
| LVDS               | 1 x LVDS: 1920 x 1080 Dual channel 18/24-bits LVDS   |

### Audio

|                 |  |
|-----------------|--|
| Audio Codec     | Realtek ALC888S HD Audio Decoding Controller |
| Audio Interface | Line-in, Mic-in, Line-out                    |

### Ethernet

|                    |   |
|--------------------|---|
| LAN Chipset        | 2 x Intel® I226LM/I226IT                |
| Ethernet Interface | 10/100/1000/2.5G Base-Tx GbE compatible |
| LAN Port           | 2 x RJ-45                               |

### Power Requirement

|            |                              |
|------------|------------------------------|
| Power Mode | AT/ATX (Default Setting: AT) |
|------------|------------------------------|

### Software Support

|    |                   |
|----|-------------------|
| OS | Windows 11, Linux |
|----|-------------------|

### Certification

|                           |                               |
|---------------------------|-------------------------------|
| Certification Information | CE, FCC Class, RoHS Compliant |
|---------------------------|-------------------------------|

### I/O

|          |   |
|----------|---|
| USB      | 3 x USB 3.2 Gen2, 1 x USB 2.0 at IO<br>2 x USB2.0 by Pin header |
| COM Port | 3 x RS-232<br>1 x RS-232/422/485                                |
| SATA     | 1 x SATA III  |
| DIO      | 1 x 8-bit GPIO  |
| MIO      | 1 x eSPI<br>1 x SIM Card Slot                                   |

### Mechanical & Environmental

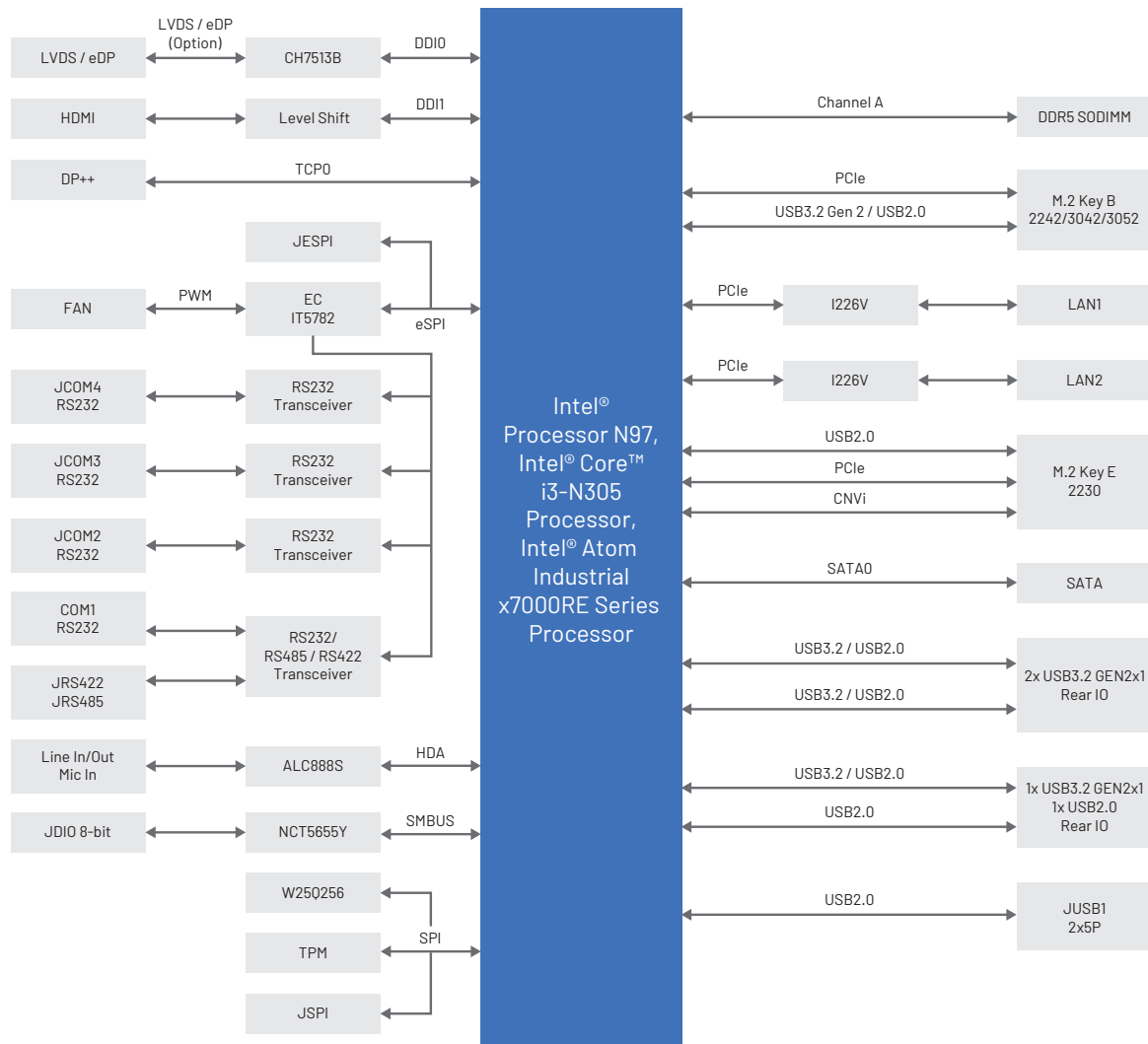
|                    |  |
|--------------------|--|
| Operating Temp.    | Standard Temperature: 0°C ~ 60°C (-4 ~ 140°F)<br>with 0.5m/s Air Flow<br>Extend Temperature: -40°C ~ 80°C (-40°F ~ 176°F)<br>with 0.5m/s Air Flow for Wide Temp. CPU SKU |
| Storage Temp.      | -40°C ~ 85°C (-40°F ~ 185°F)   |
| Operating Humidity | 40°C @ 95% Relative Humidity, Non-condensing   |
| Weight             | 0.44lbs (0.2kg)  |
| Power Requirement  | DC in +9V ~ +36V   |
| Dimension (L x W)  | 5.7" x 4" (146mm x 101mm)  |



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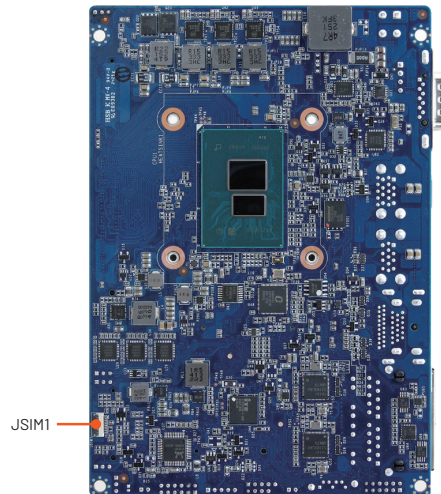
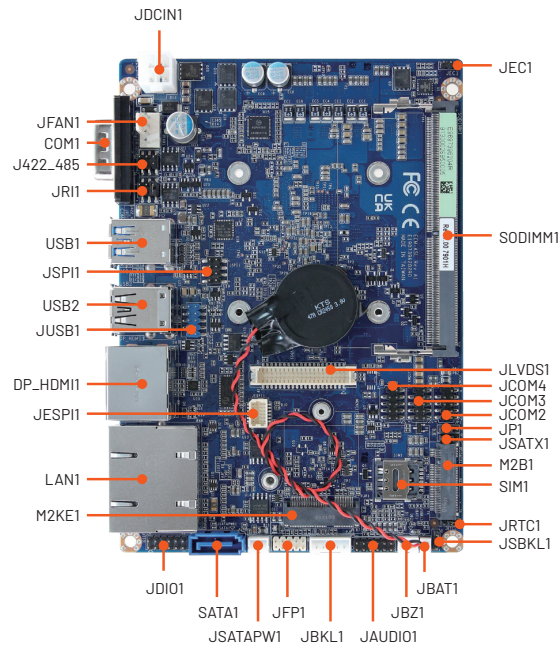
## Block Diagram



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## I/O Overview



## 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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