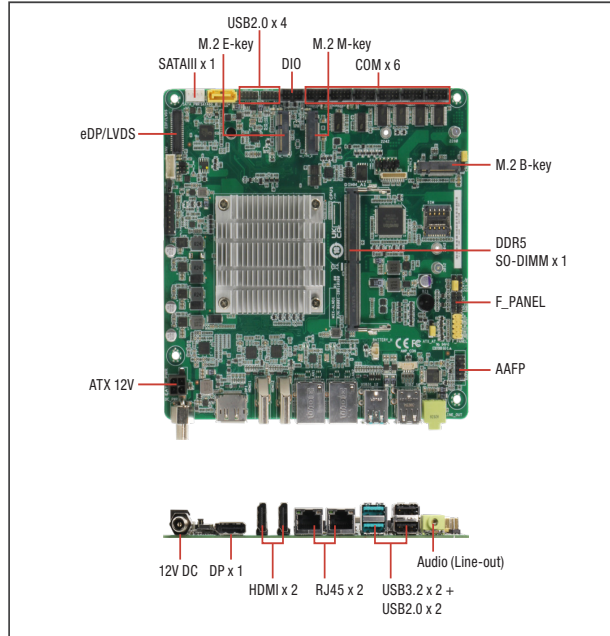


MIX-ALND1 PRELIMINARY

Mini-ITX with Intel Atom® x7000E Series and Intel® Processor N-series Processors

Industrial Motherboards



Features

- Intel Atom® x7000E Series and Intel® Processor N-series Processors
- DDR5 4800MHz SODIMM, Max 32GB
- HDMI 2.0 x 2 + DP 1.2 x 1, LVDS/eDP x 1
- M.2 2280 M-Key x 1, M.2 2230 E-Key x 1, M.2 3042/52 B-Key x 1 with SIM socket
- USB 3.2 x 2, USB 2.0 x 6
- GbE x 2
- RS-232/422/485 Pin Header x 2, RS-232 Pin Header x 4
- SATA III x 1
- 12V DC Input



Specifications

| System | |
|--------------------------|--|
| Processor | Intel® Processor N-series: Intel® Processor N97 Intel® Processor N50 *For additional compatible CPUs, please contact regional sales |
| Chipset | SoC |
| Memory | Single-Channel DDR5 4800MHz SODIMM x 1 (Non-ECC, Max. 32GB) |
| I/O Chipset | NCT6126D |
| Ethernet | Realtek 8111H x 2 |
| Audio | Realtek® ALC897 with Amp. |
| TPM | fTPM (TPM chip by BOM optional) |
| Expansion Slots | M.2 3042/3052 B-Key x 1 (PCIe [x1], SATA, USB 3.2 Gen 1/USB 2.0) with SIM socket M.2 2230 E-Key x 1 (PCIe [x1], USB 2.0) |
| BIOS | 256Mbit Flash ROM, AMI BIOS |
| H/W Monitor | Temperature Monitor on CPU/Chassis, Voltage Monitor on Vcore/5V, Fan Monitor on CPU/Chassis |
| WatchDog Timer | 1~255 steps by software program |
| Smart Fan Control | CPU Fan/Chassis Fan |
| Wake On LAN/ PXE | Yes (WOL/PXE) |
| Power State | S3, S4, S5 |
| Graphics | |
| Graphics Chipset | Intel® UHD Graphics |
| Graphics Multi Display | HDMI x 2 + DP x 1, HDMI x 2 + LVDS x 1, HDMI x 2 + eDP x 1, HDMI x 1 + DP x 1 + LVDS x 1, HDMI x 1 + DP x 1 + eDP x 1 |
| VGA | — |
| DVI | — |
| HDMI | HDMI 2.0, Up to 4096 x 2160 @60Hz |
| Display Port | DP 1.4, Up to 4096 x 2160 @60Hz |
| LVDS | 18/24-bit Dual-Channel LVDS via CH7513, up to 1920 x 1080 @60Hz, colay eDP |
| eDP | Up to 1920 x 1080 @60Hz |
| Backlight Control | PWM |
| Environment & Power & ME | |
| Battery | Lithium battery |
| Power Requirement | DC 12V |
| Operating Temperature | 32°F ~ 140°F (0°C ~ 60°C), Intel® Core™ i3-N305 with 0.5m/s Air flow |
| Storage Temperature | -40°F ~ -185°F (-40°C ~ -85°C) |
| Operating Humidity | 0% ~ 90%RH, non-condensing |
| Certificate | CE & FCC class A |

| Form Factor | Mini-ITX: 6.7" x 6.7" (170mm x 170mm) |
|-------------------------|--|
| Weight | 1.1 lb. (0.5Kg) |
| MTBF (Hours) | — |
| Rear Panel I/O Ports | |
| USB | USB 3.2 Gen 2 x 2; USB 2.0 x 2 |
| Display I/O | HDMI x 2, DP x 1 |
| Audio I/O | Line-out x 1 |
| LAN I/O | RJ-45 LAN Port x 2 |
| Serial Port | — |
| PS/2 Port | — |
| Others | — |
| Internal I/O Connectors | |
| Storage | SATA III x 1 with SATA Power Connector (1A) M.2 2280 M-Key x 1 (PCIe [x1]/NVMe/SATA) |
| USB | USB 2.0 x 4 via 2x5P Headers x 2 |
| Display I/O | 40-pin LVDS/eDP Connector x 1 with Inverter |
| Audio I/O | HD Audio x 1 (via AAFP Header), Internal Speaker x 1 (2W/4Ω) |
| Serial Port | COM Box Header x 2 (RS-232/422/485) COM Box Header x 4 (RS-232) |
| PS/2 Port | — |
| Parallel Port | — |
| DIO | Digital I/O Box Header x 1 |
| FAN | 4-pin CPU Fan connector x 1, 4-pin Chassis Fan connector x 1 |
| Power | — |
| Others | Front Panel Connector x 1, Chassis Intrusion x 1, Onboard Buzzer x 1, CMOS Jumper x 1 |
| OS | |
| OS Support | Windows® 10 64-bit, Windows® 11 64-bit |

Packing List

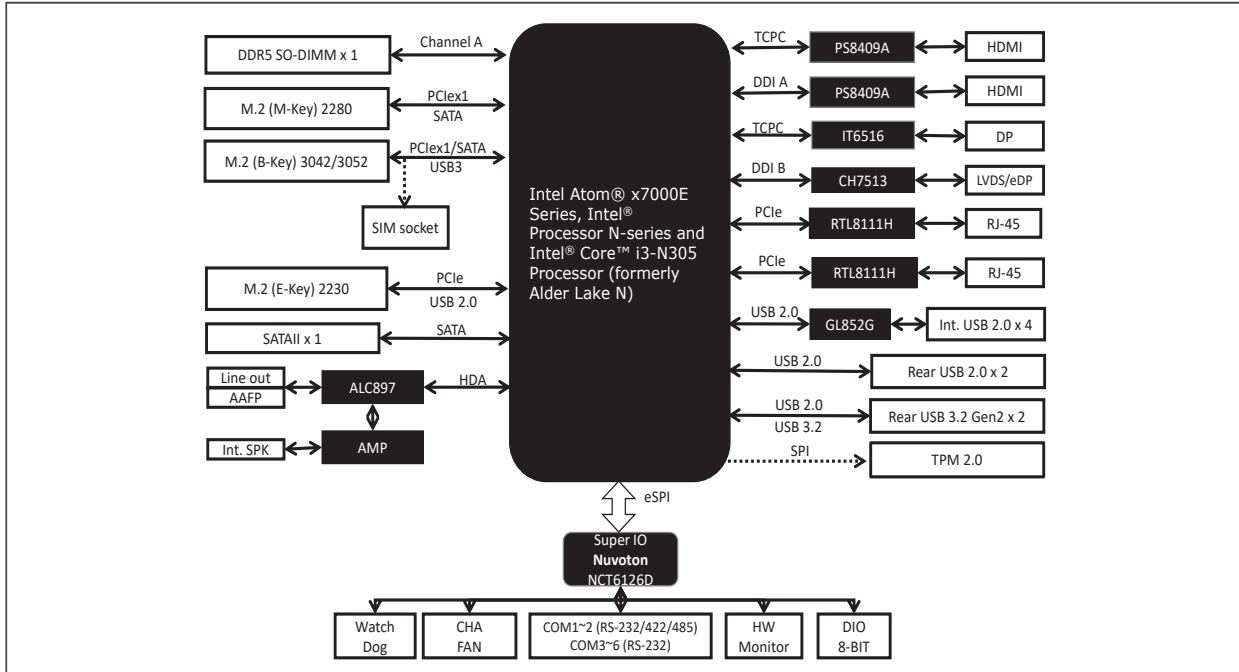
- MIX-ALND1
- I/O Shield
- SATA Cable
- SATA Power Cable

MIX-ALND1

09

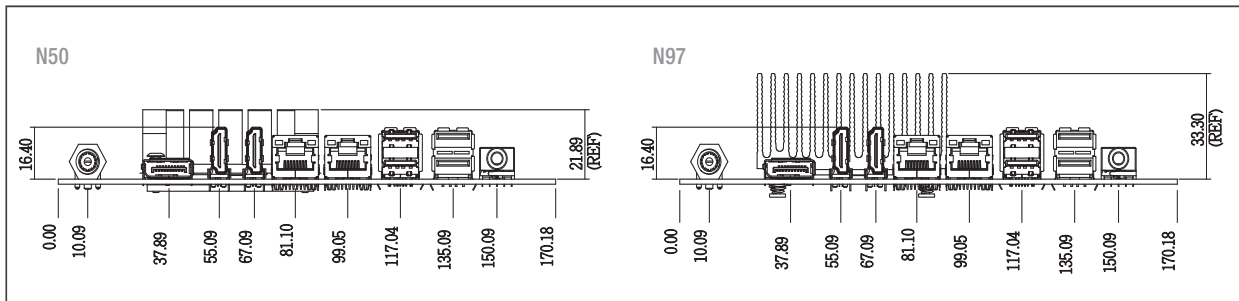
Industrial Motherboards

Block Diagram



Dimension

Unit: mm



Ordering Information

| Part Number | CPU | RAM | Fan/Fanless | Display | LVDS/eDP | Storage | LAN | USB | RS-232 | RS-232/422/485 | Expansion Slot | Power | TPM | Temp. |
|-------------------|----------------------|-----------------|-------------|------------------|----------|-----------------------------|---------|----------------------------|--------|----------------|---------------------------------|--------|------|--------|
| MIX-ALND1-A10-N97 | Intel® Processor N97 | DDR5 SODIMM x 1 | Fanless | HDMI x 2, DP x 1 | 1 | SATA III x 1, M.2 M-key x 1 | GbE x 2 | USB 2.0 x 6 USB 3.2 x 2 | 4 | 2 | M.2 B-Key x 1, M.2 E-Key x 1 | DC 12V | fTPM | 0~60°C |
| MIX-ALND1-A10-N50 | Intel® Processor N50 | DDR5 SODIMM x 1 | Fanless | HDMI x 2, DP x 1 | 1 | SATA III x 1, M.2 M-key x 1 | GbE x 2 | USB 2.0 x 6 USB 3.2 x 2 | 4 | 2 | M.2 B-Key x 1, M.2 E-Key x 1 | DC 12V | fTPM | 0~60°C |

Optional Accessories

| Part Number | Description |
|-------------|---|
| 125530060Z | Adapter.60W.180D.W/Lock.FSP060-DHAN3 |
| 1709100201 | USB 2.0 Cable (10P, 200MM, p=2.00mm, w/bracket) |
| 1701100206 | COM Cable (200MM, p=2.00mm) |
| 1700100491 | USB 2.0 Cable (10P, 490mm, p=2.00mm) |

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.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660