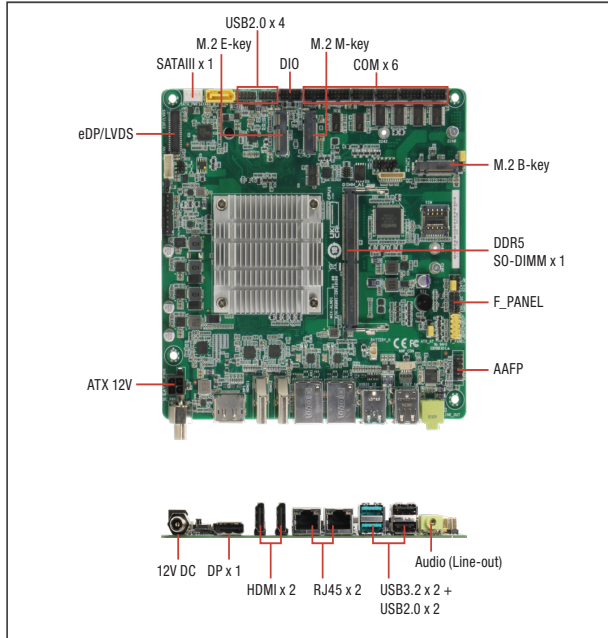


MIX-ALND1 PRELIMINARY

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

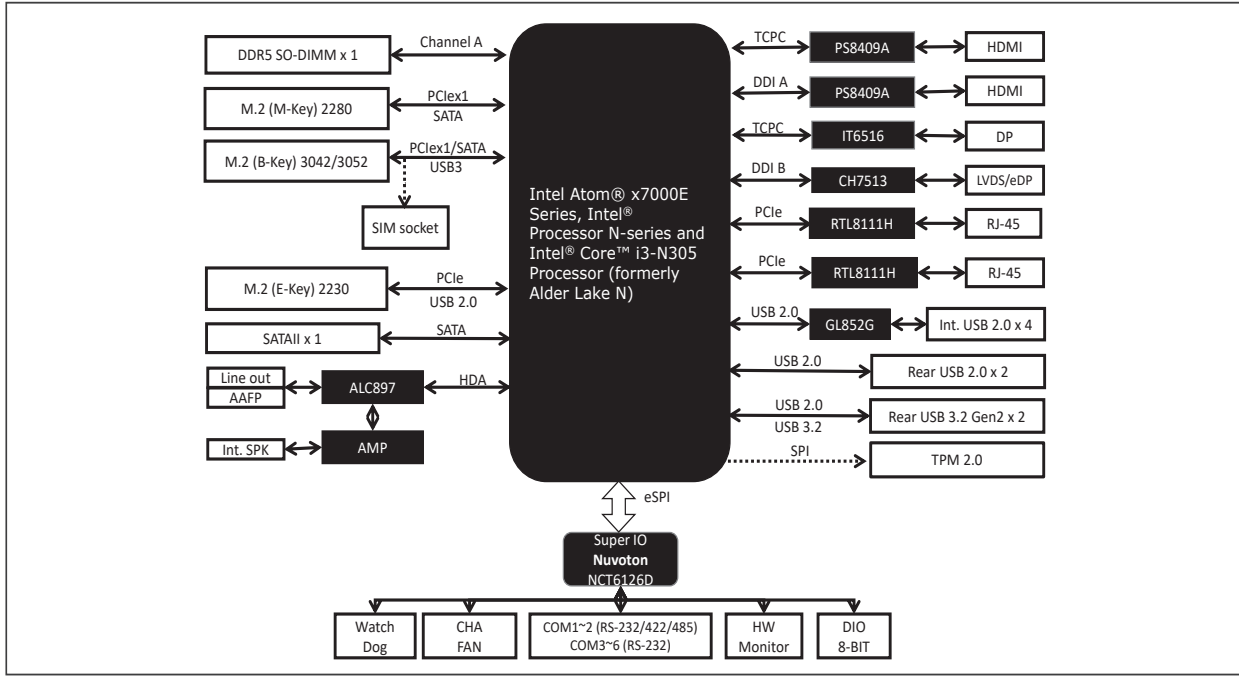
- MIX-ALND1
- I/O Shield
- SATA Cable
- SATA Power Cable

MIX-ALND1

09

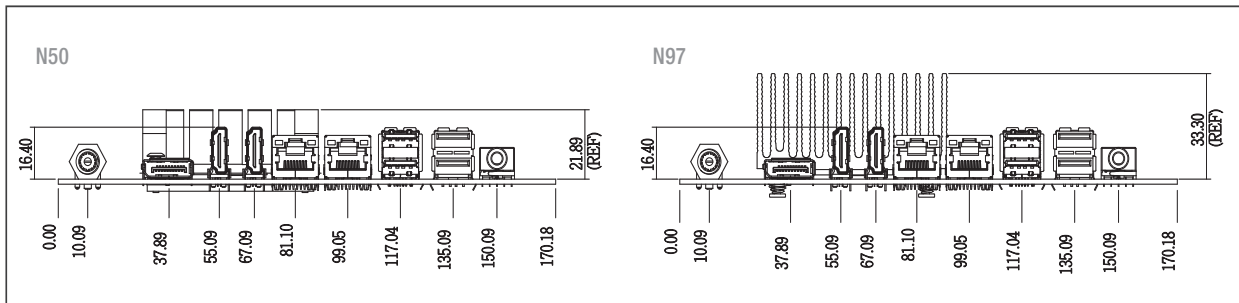
Industrial Motherboards

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