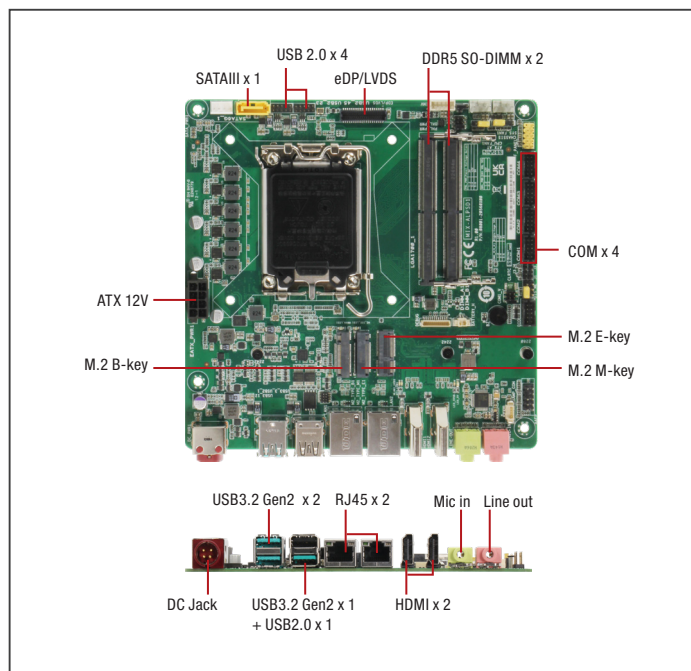


MIX-ALPSD1 PRELIMINARY

Mini-ITX with 12th Gen Intel® Core™ Processors for IoT Edge (formerly Alder Lake PS), LGA1700 Socket, Max TDP: 45W



Features

- 12th Gen Intel® Core™ Processors for IoT Edge (formerly Alder Lake PS), LGA1700 Socket
- DDR5 4800MHz SODIMM, Max. 64GB
- HDMI 2.0 x 2, LVDS/eDP x 1
- M.2 2280 M-Key x 1, M.2 2230 E-Key x 1 (PCIe [x1] x 2), M.2 3042 B-Key x 1
- USB 3.2 Port x 3, USB 2.0 Port x 5
- Realtek GbE LAN x 2
- RS-232/422/485 Header x 1; RS-232 Header x 3
- SATA III x 1
- DC 12V input



Rear Panel I/O Ports

USB	USB 3.2 Gen 2 x 3; USB 2.0 x 1
Display I/O	HDMI2.0 x 2
Audio I/O	Line-out x 1, MIC-in 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 x 1(1A) M.2 2280 M-Key x 1 (PCIe [x4]/NVMe)
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/40hmΩ)
Serial Port	COM Box Header x 1 (RS-232/422/485) COM Box Header x 3 (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	Clear CMOS Jumper x 1 Front Panel Connector x 1 Chassis Intrusion x 1 Buzzer Onboard x 1 ATX/AT Mode Select x 1 ME Disable x 1 eDP/LVDS Tcon IC Voltage Select x 1 eDP/LVDS Panel Backlight Voltage Select x 1 SATA PWR Connector x 1 LVDS Inverter Connector x 1
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OS

OS Support	Windows® 10 64-bit, Windows® 11 64bit
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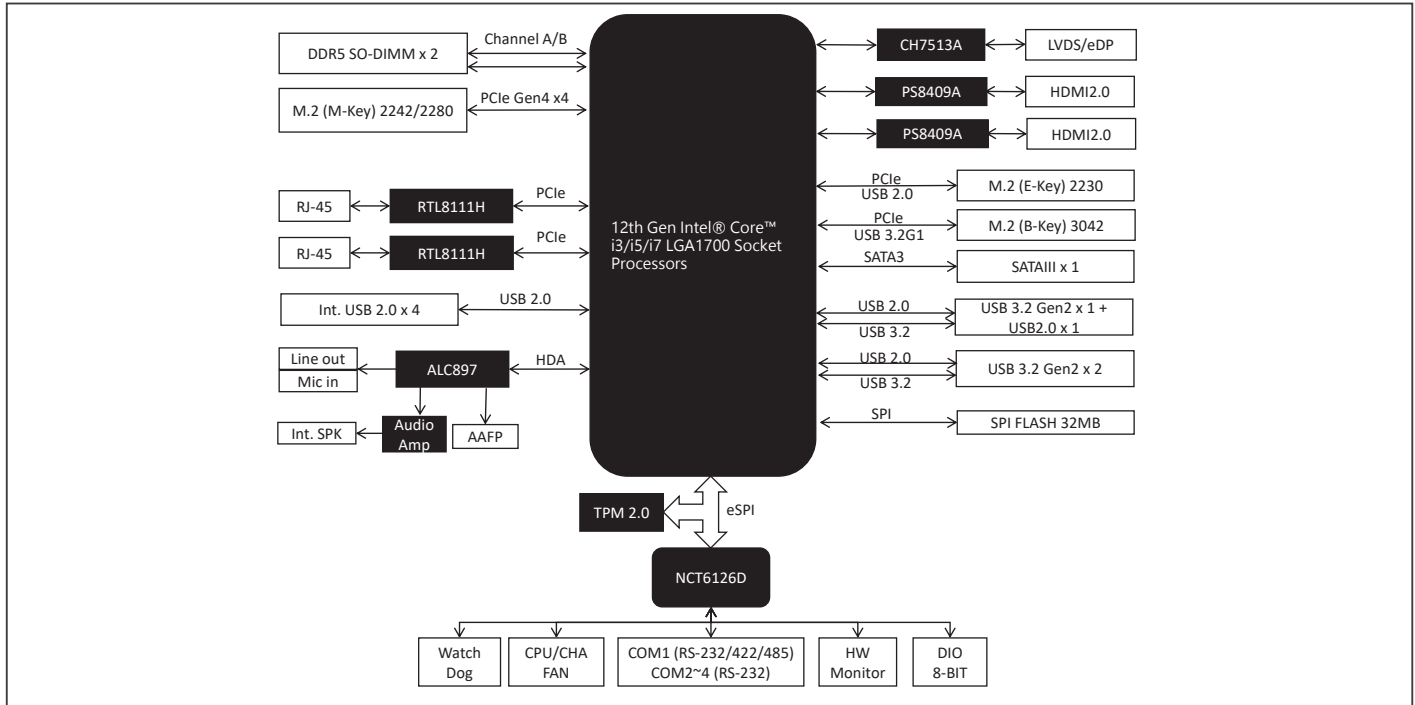
Specifications

System	
Processor	12th Gen Intel® Core™ Processors for IoT Edge (formerly Alder Lake PS), LGA1700 socket, Max TDP: 45W
Chipset	N
Memory	Single-Channel DDR5 4800 MHz SODIMM x 2 (Non-ECC, Max. 64GB)
I/O Chipset	NCT6126D
Ethernet	Realtek® RTL8111H-CG x 2
Audio	Realtek® ALC897 with Amp.
TPM	TPM2.0
Expansion Slots	M.2 3042 B-Key x 1 (PCIe [x1]) M.2 2230 E-Key x 1 (PCIe [x1] x 2)
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 + eDP x 1, HDMI x 2 + LVDS x 1
VGA	—
DVI	—
HDMI	HDMI 2.0, Up to 4096 x 2160 @60Hz
Display Port	—
LVDS	Dual-Channel 18/24 bit LVDS via CH7513, up to 1920 x 1080 @60Hz, colay eDP
eDP	Up to 4096 x 2160 @ 60 Hz
Backlight Control	PWM
Environment & Power & ME	
Battery	Lithium battery
Power Requirement	DC 12V
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
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 (0.5 Kg)
MTBF (Hours)	—

Packing List

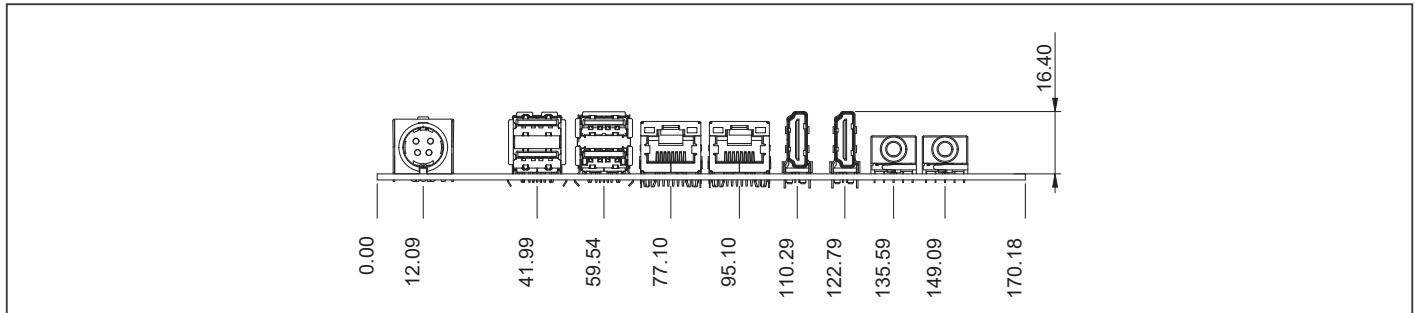
- MIX-ALPSD1
- I/O Shield
- SATA Cable
- SATA Power Cable

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-ALPSD1-A10	Socket	DDR5 SODIMM x 2	Fan	HDMI x 2	1	SATA III x 1, M.2 M-key x 1	GbE x 2	USB 2.0 x 5 USB 3.2 x 3	3	1	M.2 B-Key x 1 M.2 E-Key x 1	DC 12V	TPM2.0	0-60°C

Optional Accessories

Part Number	Description
1255X00011	(TF)AC/DC Adapter.12V.192W.16A.FSP192-AHAN3.9NA1920100
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)