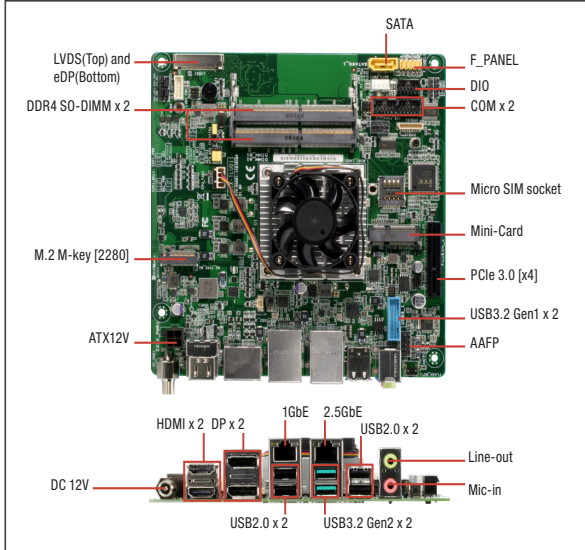


# MIX-TLUD1

Mini-ITX with Intel® 11th Gen Core™ U-Processor, Max. 28W TDPs, 4Display output, 2.5GbEx1 + 1GbEx1

Industrial Motherboards



## Features

- 11th Gen. Intel® Core™ Processor
- DDR4 SODIMM x 2, Max. 64GB
- M.2 Slot (M key; 2280) x 1, mini card x 1
- USB 3.2 Ports x 4, USB 2.0 Ports x 4
- Intel® LAN 225LM x 1, 219V x 1
- HDMI2.0 x 2, DP1.4 x 2
- LVDS x 1, eDP x 1
- PCI-Express [x4] x 1
- DC 12V



## Specifications

System	
Processor	Intel® 11th Gen (Tiger Lake-UP3) Core™ Processors, up to 28W TDPs - i7-1185G7E, QC, Max Speed up to 4.4GHz - i5-1145G7E, QC, Max Speed up to 4.1GHz - i3-1115G4E, DC, Max Speed up to 3.9GHz - Celeron 6305E, DC, 1.8GHz
Chipset	—
Memory	DDR4 2666/3200 MHz SODIMM x 2, Up to 64GB
I/O Chipset	IT5121E
Ethernet	Intel® PCIe Gb LAN 219LM x 1 Intel® PCIe Gb LAN 225LM x 1
Audio	Realtek® ALC897
TPM	Nuvoton NPCT750 TPM2.0 onboard
Expansion Slots	PCIe 3.0 [x4] x 1, mini-card x 1(PCIe/SATA; BOM Optional)
BIOS	256Mbit Flash ROM, AMI BIOS
H/W Monitor	Temperature Monitor on CPU/Chassis, Voltage Monitor on Vcore/5V/12V, Fan Monitor on CPU/Chassis
WatchDog Timer	1~255 step 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® Xe(Gen 12) Graphics
Graphics Multi Display	Quad Display
VGA	—
DVI	—
HDMI	HDMI 2.0
Display Port	DP1.4
LVDS	Up to 1920 x 1200 @60Hz, Dual Channel 18/24 bit (via CH7511B)
eDP	eDP1.4b
Backlight Control	—
Environment & Power & ME	
Battery	Lithium battery
Power Requirement	12(+/-5%) DC
Operating Temperature	32°F ~122°F (0°C ~ 50°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):	—

### Rear Panel I/O Ports

USB	USB 3.2 Gen2 x 2, USB2.0 x 4
Display I/O	HDMI x 2, DP++ x 2
Audio I/O	Mic-in x 1, Line out x 1
LAN I/O	1GbE x 1, 2.5GbE x 1
Serial Port	—
PS/2 Port	—
Others	—

### Internal I/O Connectors

Storage	M.2 M key (2280) for (NVMe; PCIe4) storage x 1 SATA 6.0Gb/s x 1
USB	USB 3.0 Box header x 1 (support additional USB3.2 Gen1 x 2ports)
Display I/O	40-pin LVDS connector x 1, 40-pin eDP connector x 1
Audio I/O	AAFP follow ASUS pin out x 1
Serial Port	Box header x 2 for COM (COM1/2: 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, Buzzer onboard x 1, Clear CMOS jumper x 1, AT/ATX mode select jumper x 1; SIM socket x 1

OS	
OS Support	Windows® 10 64-bit, 20.04.2/Kernel 5.8

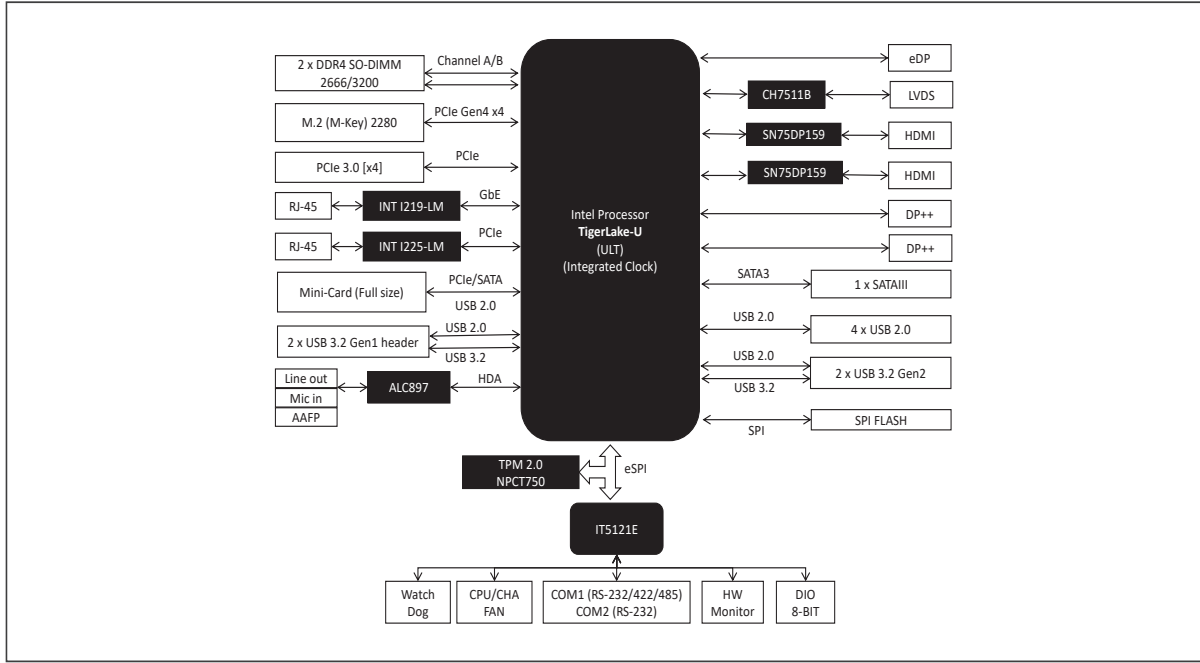
## Packing List

- MIX-TLUD1
- SATA Cable
- I/O Shield

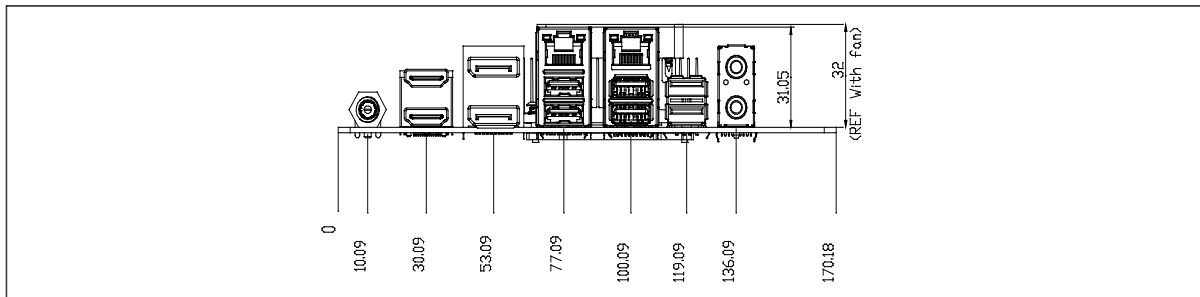
## Optional Accessories

Part Number	Description
1709100201	USB 2.0 Cable (10P, 200MM, p=2.00mm, w/bracket)
1700100491	USB 2.0 Cable (2 x 5P, 490mm, p=2.00mm)
1709050201	USB 2.0 Cable (5P, 220mm, p=2.00mm)
1701100206	COM Cable (200MM, p=2.00mm)
1702150300	SATA Power Cable (4P, 300MM p=2.54mm)
125590084A	Adapter 12V, 84W/N3

**Block Diagram**



**Dimension** Unit: mm



**Ordering Information**

Part number	CPU	RAM	Fan/Fan-less	Display	LVDS	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	TPM	Temp
MIX-TLUD1-A10-6305E	Celeron 6305E	SODIMM x 2	Fan	HDMIx2, DPx2	Dual Channel 18/24 bit	SATA3 x 1, M.2 (M-key)	2.5GbE x 1, 1GbE x 1	USB 2.0 x 4, USB 3.2 Gen 1 x 4	2	0	Mini-PCIe[x1] x 1,	12V	TPM2.0	32°F ~ 122°F (0°C ~ 50°C)
MIX-TLUD1-A10-1115G4E	i3-1115G4E	SODIMM x 2	Fan	HDMIx2, DPx2	Dual Channel 18/24 bit	SATA3 x 1, M.2 (M-key)	2.5GbE x 1, 1GbE x 1	USB 2.0 x 4, USB 3.2 Gen 1 x 4	2	0	Mini-PCIe[x1] x 1,	12V	TPM2.0	32°F ~ 122°F (0°C ~ 50°C)
MIX-TLUD1-A10-1145G7E	i5-1145G7E	SODIMM x 2	Fan	HDMIx2, DPx2	Dual Channel 18/24 bit	SATA3 x 1, M.2 (M-key)	2.5GbE x 1, 1GbE x 1	USB 2.0 x 4, USB 3.2 Gen 1 x 4	2	0	Mini-PCIe[x1] x 1,	12V	TPM2.0	32°F ~ 122°F (0°C ~ 50°C)

## 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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