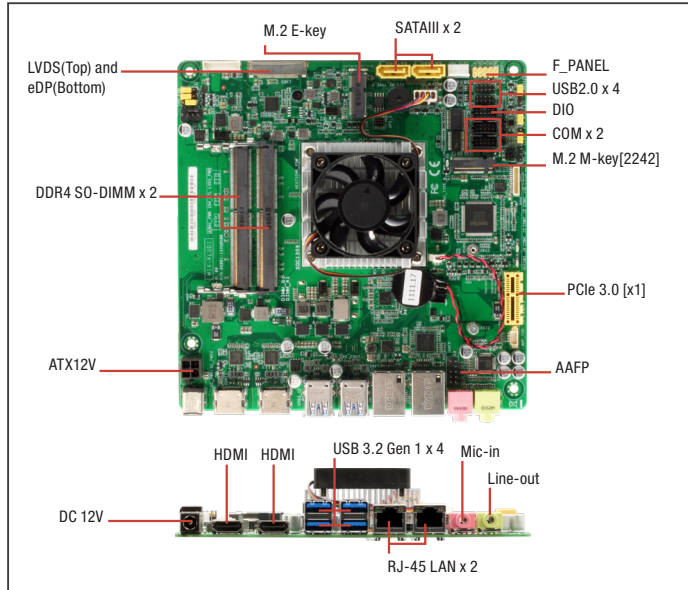


MIX-KLUD1

Mini-ITX, 14nm, FCBGA1356 7th Gen Intel® Core™ processor family, 15~25W TDP



Features

- DDR4 SODIMM x 2, Up to 32GB
- Three Independent Display: VGA x 1 or HDMI x 1, eDP x 1 or LVDS x 1
- Dual Intel GbE LAN
- M.2 Slot (M-key) x 1
- M.2 Slot (E-key) x 1
- PCIe3.0 [x1] x 1
- 12V DC



| | |
|-------------|--------------------------|
| Audio I/O | Mic-in x 1, Line-out x 1 |
| LAN I/O | LAN (RJ-45) port x 2 |
| Serial Port | — |
| PS/2 Port | — |
| Others | DC Power Jack x 1 |

Internal I/O Connectors

| | |
|---------------|--|
| Storage | M.2 M key (22 x 80mm) for PCIe [x4]/SATA storage x 1, SATA 6.0Gb/s x 2, 4-pin SATA power x 1 |
| USB | USB 2.0 pin header x 2 support additional 4 USB ports |
| Display I/O | 40-pin LVDS connector x 1, 40-pin eDP connector x 1, LCD backlight connector(inverter) x 1 |
| Audio I/O | Speaker for 2W@4Ω x 1, AAFP follow ASUS pin out x 1 |
| Serial Port | Box header x 2 for COM (COM1: RS-232/422/485 supports 5V/12V/R1) |
| PS/2 Port | — |
| Parallel Port | — |
| DIO | 8-bit programmable (4-in/4-out) 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, CMOS jumper x 1 |
| OS | |
| OS Support | Windows® 10 64-bit |

Specifications

| System | |
|--------------------------|---|
| Processor | Core™ i3-7100U, 2C/4C, 2.4GHz, 3M, 300MHz/1.00GHz (Turbo) GFX, ~15W TDP |
| Chipset | — |
| Memory | SODIMM x 2, max. 32GB, DDR4-2133 non-ECC, un-buffered memory |
| I/O Chipset | NCT6793D |
| Ethernet | Intel® PCIe Gb LAN 219LM (vPro for i7-7600U/i5-7300U) x 1 Intel® PCIe Gb LAN 210AT x 1 |
| Audio | Realtek® ALC897 with Amp. |
| TPM | NPCT650 TPM2.0 onboard (default: No) |
| Expansion Slots | PCIe 3.0 [x1] x 1 M.2 M key (22 x 80 mm) x 1, SATA & PCIe [x4] M.2 E key (22 x 30 mm) x 1 for Wireless-wifi module (PCIe+USB) |
| BIOS | 128Mbit 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 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 or LVDS x 1 |
| VGA | — |
| DVI | — |
| HDMI | HDMI 1.4 up to 4096 x 2340 @24Hz |
| Display Port | — |
| LVDS | Up to 1920 x 1200 @ 60 Hz, Dual Channel 18/24 bit |
| eDP | UP to 4096 x 2304 @ 60Hz |
| Backlight Control | Voltage/PWM; Max 1A |
| Environment & Power & ME | |
| Battery | Lithium battery |
| Power Requirement | 12V DC |
| Operating Temperature | 32°F ~ 131°F (0°C ~ 55°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" (170 mm x 170 mm) |
| Weight | 1.1 lb (0.5 Kg) |
| MTBF (Hours): | 400,330 |
| Rear Panel I/O Ports | |
| USB | USB 3.2 Gen 1 (5 Gbps) x 4 |
| Display I/O | HDMI x 2 |

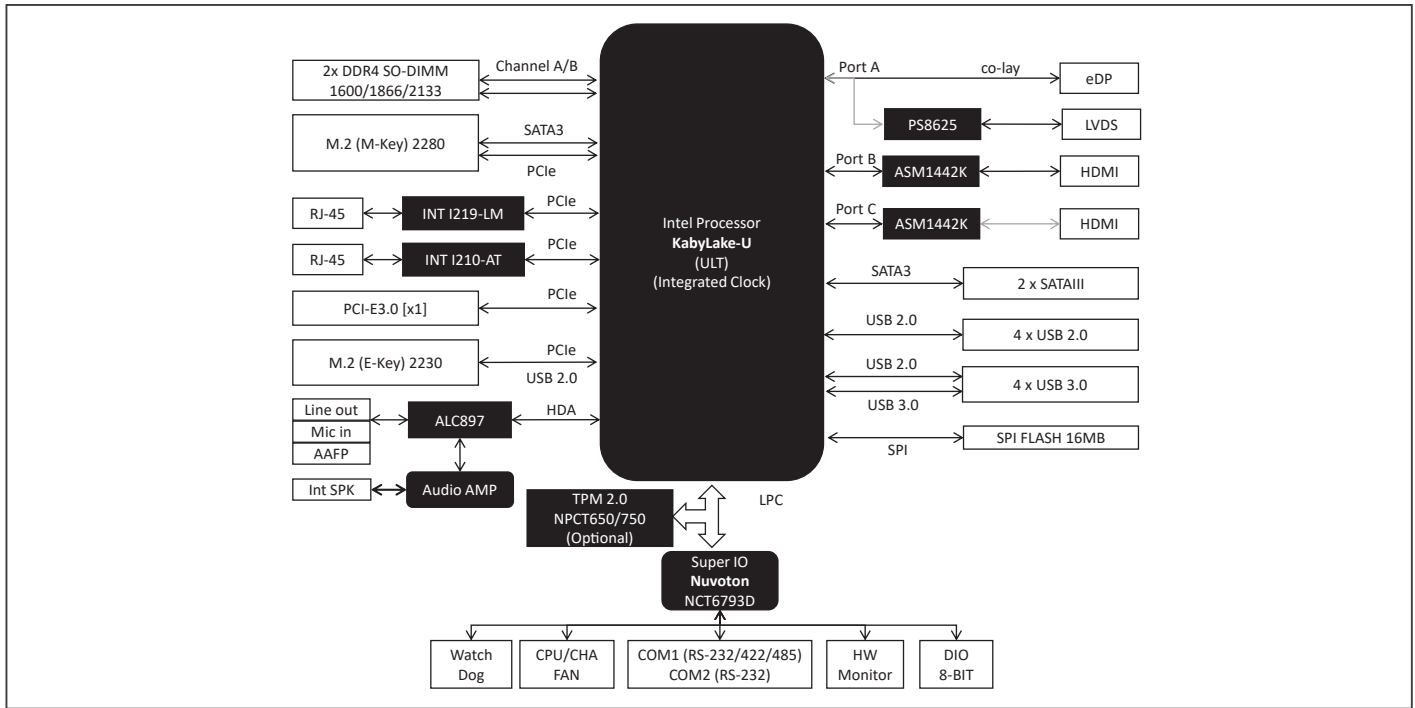
Packing List

- Heatsink/CPU Fan
- SATA Cable
- SATA Power Cable
- I/O Shield
- MIX-KLUD1

Optional Accessories

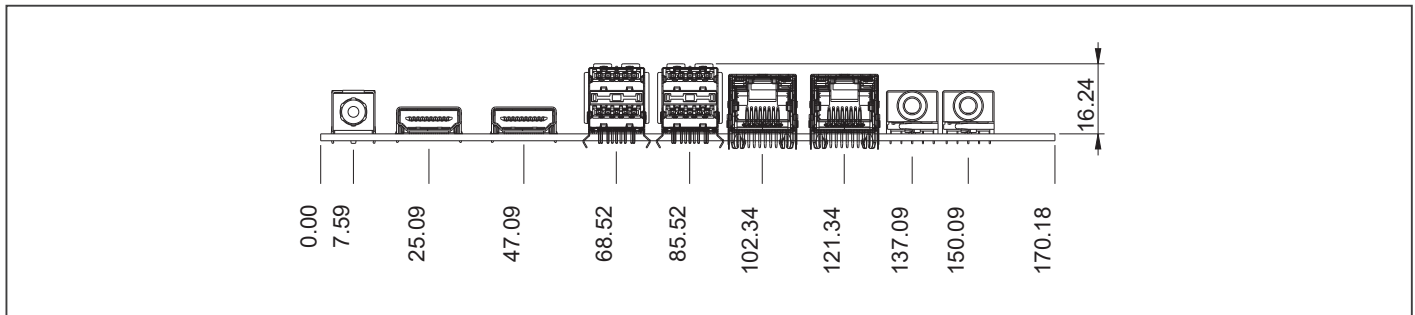
| Part Number | Description |
|-------------|---|
| 1709100201 | USB 2.0 Cable (10P, 200MM, p=2.00mm, w/bracket) |
| 1700100491 | USB 2.0 Cable (2 x 5P, 490mm, p=2.00mm) |
| 1709050201 | USB 2.0 Cable (5P, 220mm, p=2.00mm) |
| 1701100206 | COM Cable (200MM, p=2.00mm) |
| 1702150300 | SATA Power Cable (4P, 300MM p=2.54mm) |
| 1702151201 | SATA Power Cable (4P, 120MM, p=2.5mm) |

Block Diagram



Dimension

Unit: mm



Ordering Information

| PART NUMBER | CPU | RAM | FAN/ FANLESS | DISPLAY | STORAGE | LVDS | LAN | USB | RS-232 | RS- 232/422/485 | EXPANSION SLOT | POWER | TPM | TEMP. |
|---------------------------|----------|------------|-----------------|----------------|------------------------|------------------------|---------|-------------------------------|--------|--------------------|--|--------|-----|---------------------------|
| MIX-KLUD1-A11-7100-LV-210 | i3-7100U | SODIMM x 2 | Fanless | HDMI x 2, LVDS | SATA3 x 2, M.2 (M-key) | Dual Channel 18/24 bit | GbE x 2 | USB 3.2 Gen 1 x 4, USB2.0 x 4 | 1 | 1 | PCIe[x1] x 1, M.2(M-key) x 1, M.2(E-Key) x 1 | 12V DC | — | 32°F ~ 131°F (0°C ~ 55°C) |