

ASL051

Atom

Intel® Atom® Amston Lake Processors
2.5" Pico-ITX



Bottom View



Top View

KEY FEATURES



DDR5

1 DDR5 4800MHz SODIMM



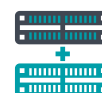
4K High Resolution

Supports 4K/2K resolution



Dual Display

HDMI + LVDS/eDP (Opt.)



Multiple Expansion

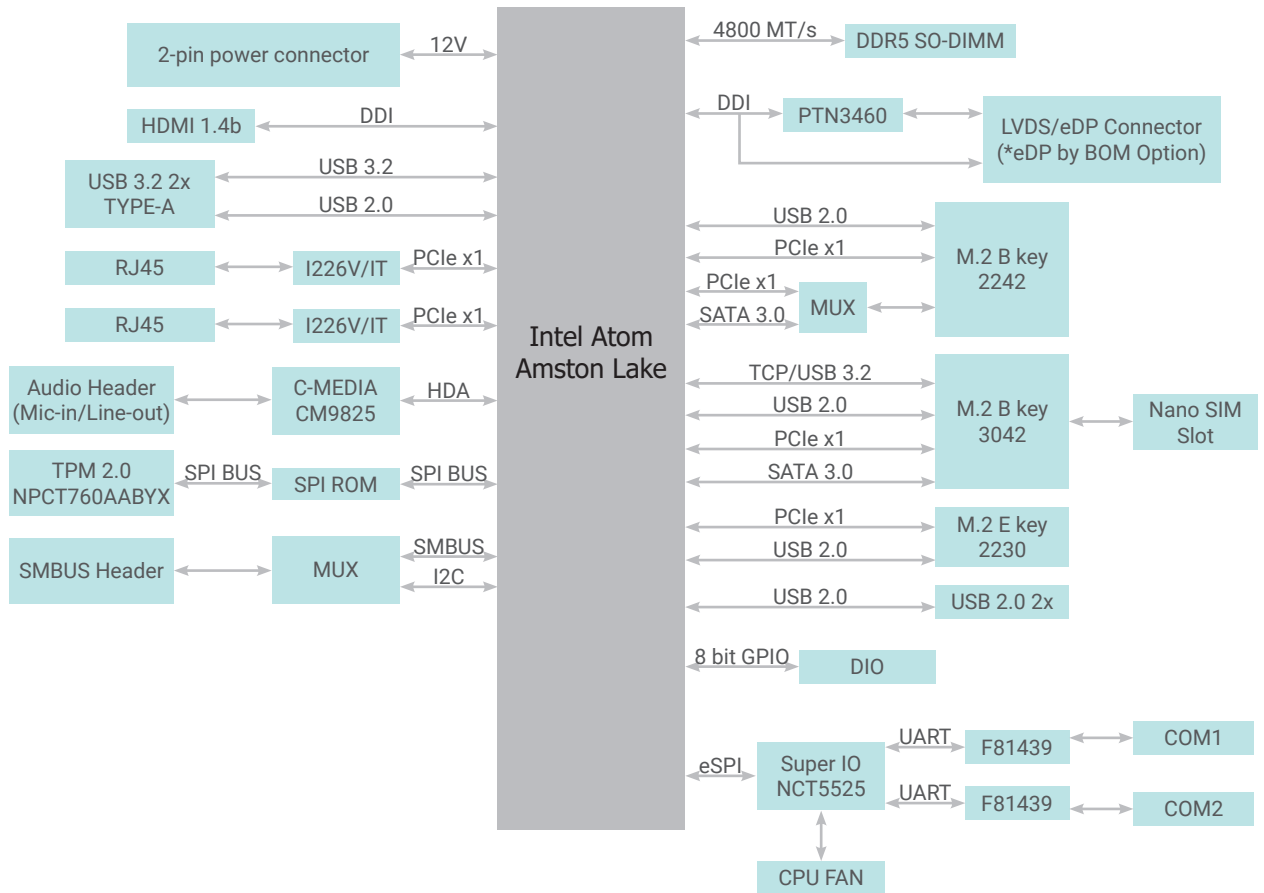
1 M.2 E Key, 2 M.2 B Key



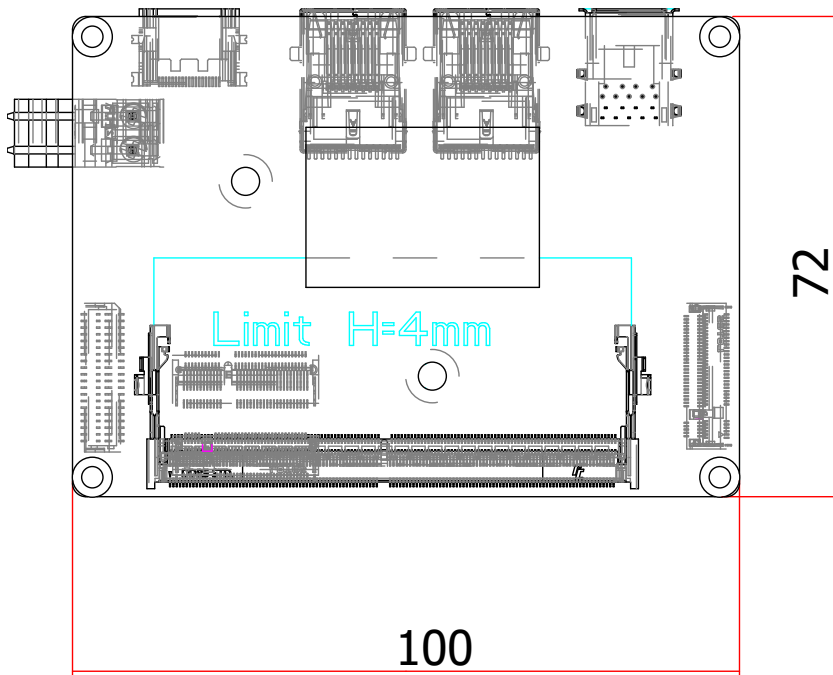
Rich I/O

2 Intel 2.5GbE, 2 COM, 2 USB 3.2, 2 USB 2.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

| | | |
|------------------------------|------------------------|--|
| SYSTEM | Processor | Intel® Atom x7000RE series processors (Code Name : Amston Lake) Intel® Atom Processor x7835RE, 8 Cores, 1.3~3.6GHz, 12W Intel® Atom Processor x7433RE, 4 Cores, 1.5~3.4GHz, 9W Intel® Atom Processor x7211RE, 2 Cores, 1.0~3.2GHz, 6W |
| | Memory | One 262-pin SODIMM up to 16GB Single Channel DDR5 4800MHz |
| | BIOS | AMI SPI 256Mbit |
| GRAPHICS | Controller | Intel® UHD Graphics |
| | Feature | OpenGL 4.6, Direct X 12.1, OpenCL 3.0 HW Decode: HEVC, VP9, AV1, AVC HW Encode: HEVC, VP9, AVC |
| | Display | 1 x HDMI 1 x LVDS/eDP (Opt.) HDMI: resolution up to 4096x2160 @24Hz LVDS: dual channel 18/24-bit, resolution up to 1920x1200 @60Hz eDP: resolution up to 4096x2160 @60Hz |
| | Dual Displays | HDMI + LVDS/eDP (Opt.) |
| EXPANSION | Interface | 1 x M.2 2230 E Key (PCIe 3.0 x1/USB 2.0), for Wi-Fi/BT. 1 x M.2 3042/2242 B Key (PCIe 3.0 x1/USB 3.2 Gen 1 x1/SATA 3.0) with 1 x Nano SIM slot for 4G/5G. 1 x M.2 2242 B key (PCIe 3.0 x2/USB 2.0/SATA 3.0), for storage. |
| AUDIO | Audio Codec | CMEDIA CM9825 |
| ETHERNET | Controller | 2 x Intel® I226V/IT (10/100/1000/2500Mbps) |
| REAR I/O | Ethernet | 2 x 2.5GbE (RJ-45) |
| | USB | 2 x USB 3.2 Gen2 |
| | Display | 1 x HDMI |
| INTERNAL I/O | Serial | 2 x RS-232/422/485 (1.00mm pitch, 2 x 9-pin header) |
| | USB | 2 x USB 2.0 (1.00mm pitch, 1 x 8-pin header) |
| | Display | 1 x LVDS LCD Panel Connector 1 x Panel Inverter Power (5V/12V) |
| | Audio | 1 x Line-out/Mic-in (1.00mm pitch, 1 x 8-pin header) |
| | Smart Fan | 12V (4-wire) |
| | DIO | 1 x 8-bit DIO (1.00 pitch, 1 x 10-pin header) |
| | Front Panel | 1 x front panel (power button/reset button, power LED, HDD act LED) |
| | SMBus | 1 x SMBus/I2C (Opt.) |
| WATCHDOG TIMER | Output & Interval | System Reset, Programmable via Software from 1 to 255 Seconds |
| SECURITY | TPM | dTPM2.0 |
| POWER | Type | Single 12V (+/- 5%) DC |
| | Connector | 2-pin Terminal Block 2-pin Vertical Type Connector (Opt.) 2-pin Horizontal Type Connector (Opt.) |
| | Consumption | TBD |
| | RTC Battery | CR2032 Coin Cell |
| OS SUPPORT | OS Support (UEFI Only) | Windows 10 IoT Enterprise LTSC 2021 Windows 11 IoT Enterprise LTSC 24H2 |
| | | Linux |
| ENVIRONMENT | Temperature | Operating: -40 to 85 °C Storage: -40 to 85°C |
| | Humidity | Operating: 5 to 90% RH Storage: 5 to 90% RH |
| | MTBF | TBD |
| MECHANISM | Dimensions | 2.5" Pico-ITX Form Factor 100mm (3.94") x 72mm (2.83") |
| | Height | PCB: 1.6 mm Top Side: TBD Bottom Side: TBD |
| STANDARDS AND CERTIFICATIONS | Certifications | CE, FCC, RoHS, UKCA |