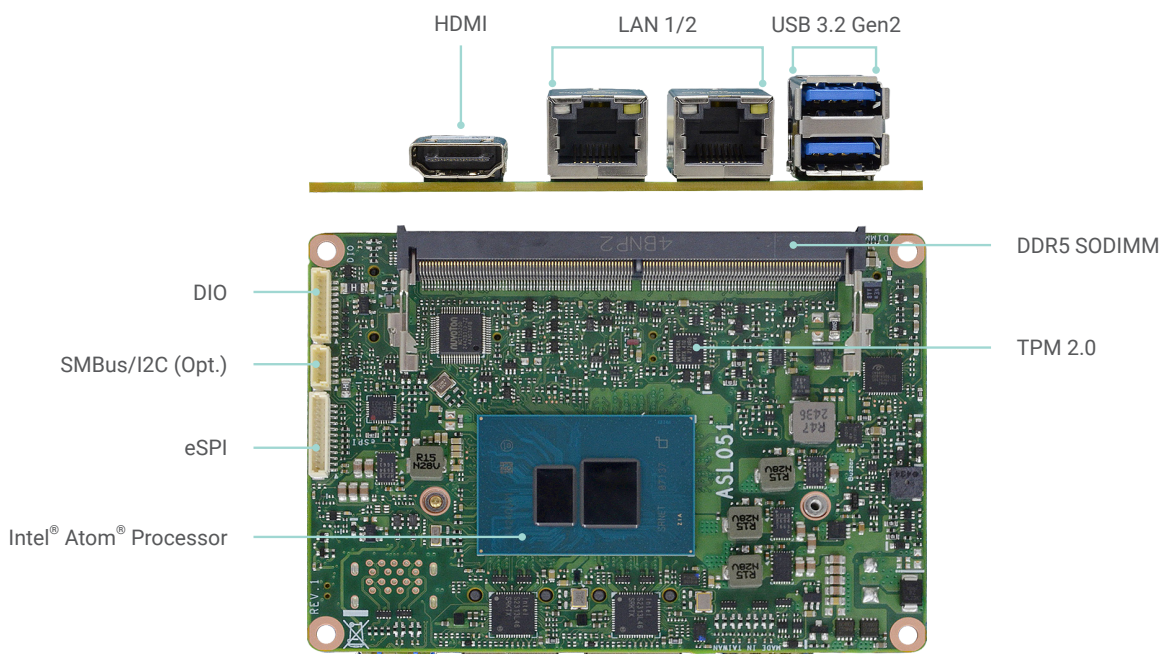


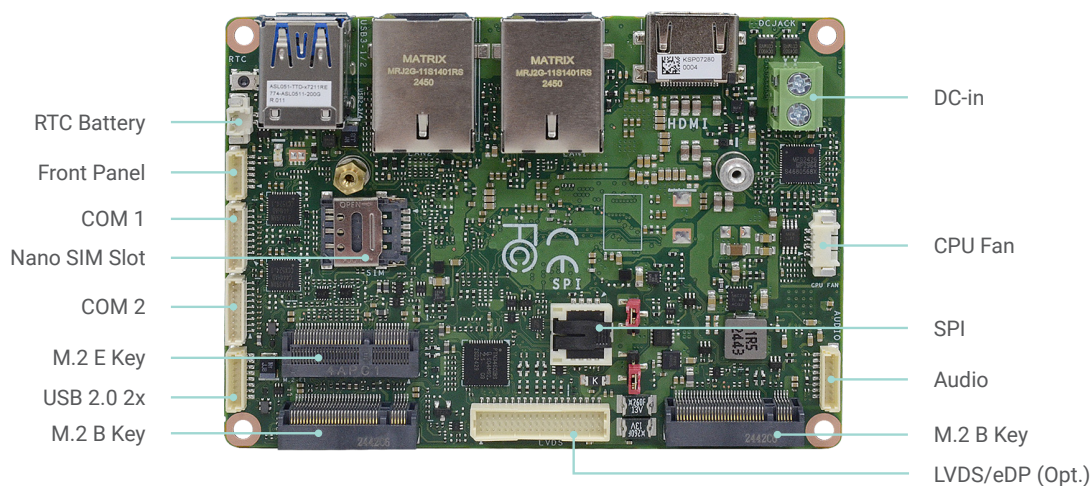
ASL051

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

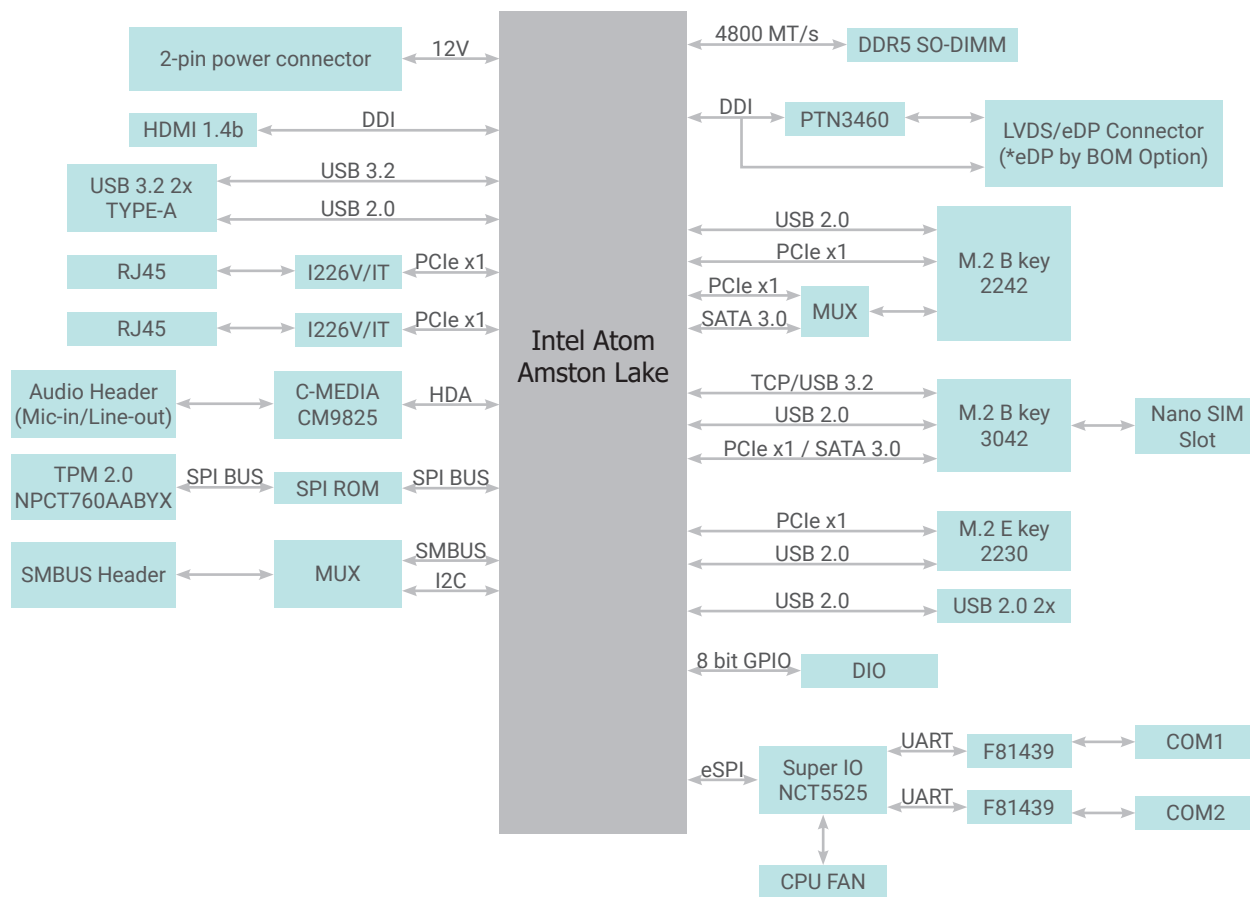
1 M.2 E Key,
2 M.2 B Key



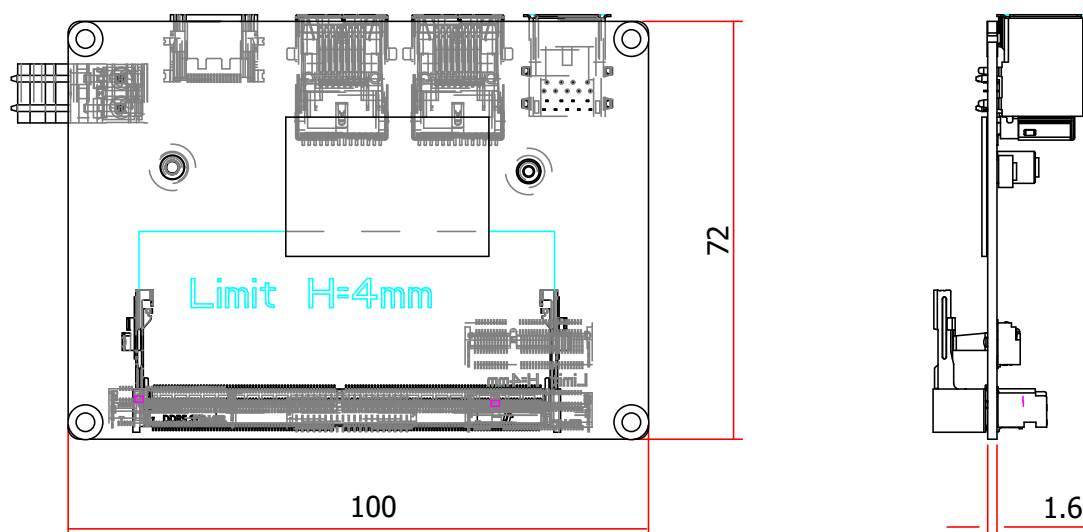
Rich I/O

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 4096×2160 @24Hz LVDS: dual channel 18/24-bit, resolution up to 1920x1200 @60Hz eDP: resolution up to 2560x1440 @ 60Hz (2 Lane)
	Dual Displays	HDMI + LVDS/eDP (Opt.)
EXPENSION	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 40 pin LVDS/eDP (Default: LVDS)
	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