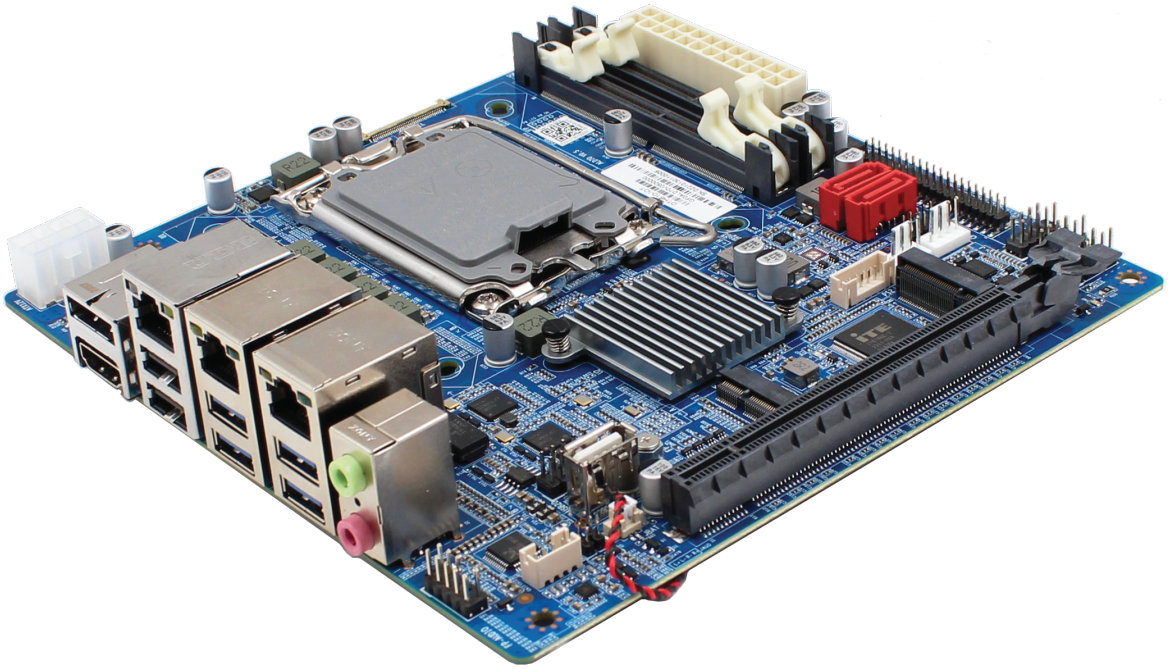
# ALD-70

PRODUCT DATASHEET
HW Rev.: V0.5

## Intel® 12th/13th/14th Gen Desktop Series Processor with H610 chipset based Mini ITX Motherboard



## Features

- CPU: Intel® 12th/13th/14th Gen Desktop Processor + H610 Chipset
- Memory: Dual channel SO-DIMM DDR4 Up to 64GB
- Display: Integrated Graphics, display via DP+HDMI+eDP(40Pin FPC)
- Ethernet: 1xIntel i219(1.0GbE)+2xIntel i226(2.5GbE)
- Storage: 2xSATA3.0, M.2 Key M for NVMe/SATA SSD
- Expansion: PCIe x16 Slot, M.2 Key E for WiFi and Bluetooth
- Power: ATX input

intel prestige partner Builder

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# Introduction

The Maxtang ALD-70 is a high-performance Mini-ITX motherboard powered by Intel® 12th, 13th, and 14th Gen Desktop Processors (Alder Lake-S/Raptor Lake-S) with a TDP of up to 65W. It supports dual-channel DDR4 SO-DIMM memory up to 64GB and integrates Intel® UHD Graphics, delivering flexible display outputs via DisplayPort, HDMI, and eDP for multi-screen applications.

Designed with robust connectivity, the ALD-70 features triple Intel® Ethernet ports (1GbE + dual 2.5GbE) and multiple expansion options, including PCIe 5.0, M.2 Key M for NVMe/SATA storage, and M.2 Key E for Wi-Fi/Bluetooth. Rich I/O interfaces such as six COM ports, USB2.0/USB3.2, GPIO, and audio headers provide versatile peripheral support. With an operating temperature range of -20°C to 60°C and compatibility with Windows 10/11 and Linux, the ALD-70 is an ideal choice for compact PCs, digital signage, and industrial solutions requiring stable, long-term performance.

Linux

ubuntu

Windows

H/W Monitor

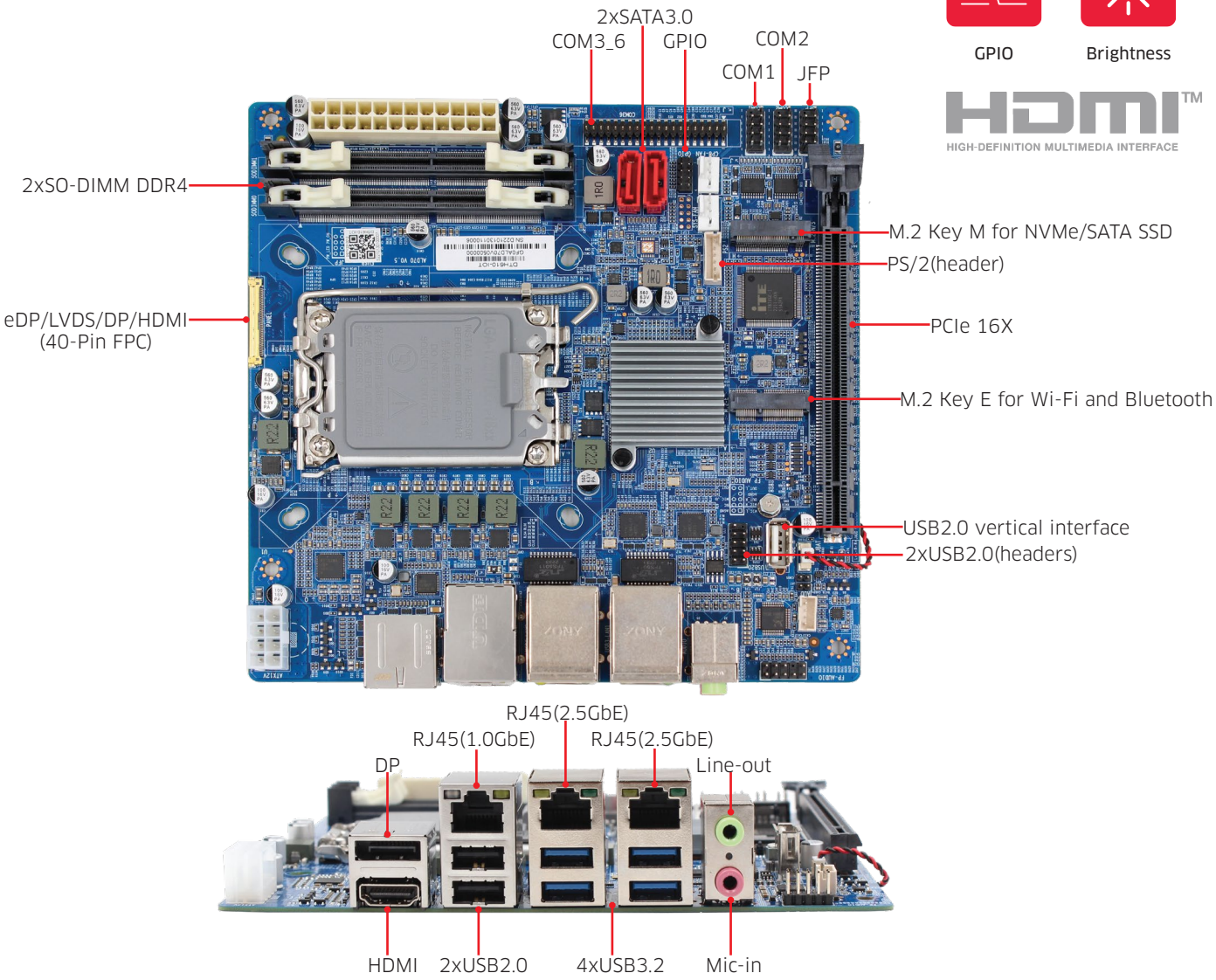
Watchdog

GPIO

Brightness

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

# I/O Interfaces

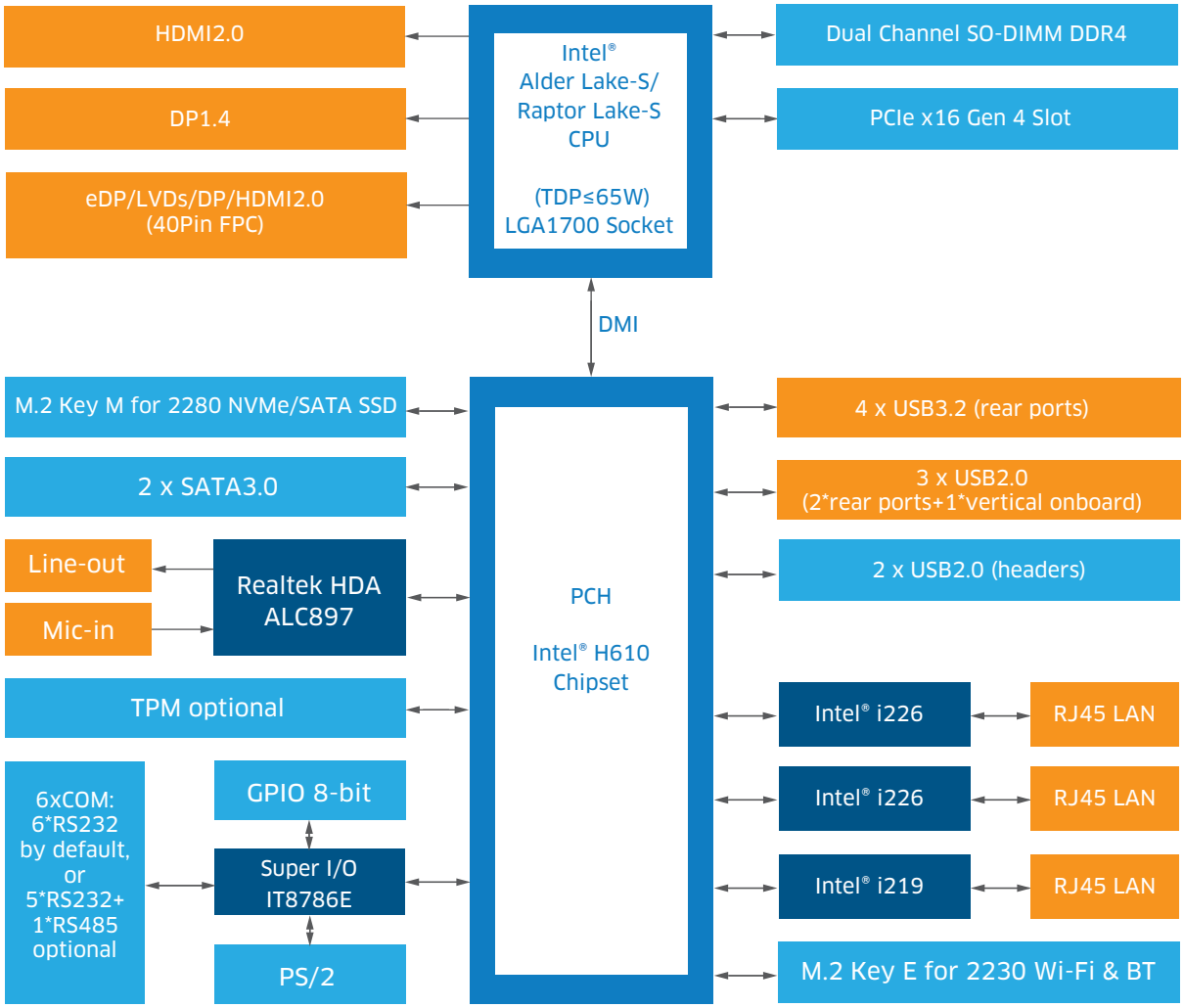


# Technical Specifications

| | | |
|---|---|---|
| Processor | CPU | 12th/13th/14th Gen Intel® Desktop Series Processor |
| | Code Name | Alder Lake-S/Raptor Lake-S Desktop Series |
| | TDP | ≤65W |
| | Socket | LGA1700 |
| | Chipset | Intel® H610 |
| | BIOS | AMI UEFI BIOS |
| Memory | Type | Dual Channel SO-DIMM DDR4 |
| | Max.Capacity | 64GB |
| Display | GPU | Integrated Intel® Graphics |
| | Interface | 1 x DP+1 x HDMI+1x eDP(40-Pin FPC, can be expanded to LVDs/DP/HDMI) |
| Ethernet | Controller | 1 x Intel i219, Date Rate Per Port:1.0GbE |
| | | 2 x Intel i226, Date Rate Per Port:2.5GbE |
| | Interface | 3 x RJ45 |
| | Wake on LAN | Yes |
| Audio | Audio Codec | Realtek HD ALC897 |
| | Interface | 1 x Line-out, 1 x Mic-in, supports audio header and amplifier header |
| Hardware Monitoring | | CPU system temperature, onboard voltage, watchdog, auto power on |
| Storage | M.2_N/S | 1 x M.2 Key M for 2280 NVMe/SATA SSD |
| | SATA | 2 x SATA3.0 |
| Expansion | M.2_E | 1 x M.2 Key E for Wi-Fi and Bluetooth, support CNVi |
| | PCIe | 1*PCIe x16(PCIe 5.0) |
| Other I/O | COM | 6 x COM: 6*RS232(default) or 5*RS232+1*RS485(COM2) |
| | USB2.0 | 5 x USB2.0: 2*rear ports+1*vertical interface+2*headers |
| | USB3.2 | 4 x USB3.2(rear ports) |
| | GPIO | 8-bit |
| | PS/2 | 1 |
| | TPM | Optional |
| Dimension | Size | 170mm x 170mm |
| | Form Factor | Mini ITX |
| Power | Standard Port | 24-pin ATX + 12V auxiliary ATX supply (2x4) |
| | Peripheral Input | For Fan and SATA |
| Temperature | Operating Temp. | -20°C to 60°C |
| | Storage Temp. | -40°C to 80°C |
| Operating System | | Windows 10/11, Linux |

* All specifications and photos are subject to change without notice.

## Functional Block Diagram




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## Order Information

| Model Name | Description |
|---|---|
| DTH610-IOT | DT Intel H610 ALD70 170*170MM IOT 3LAN 6*RS232 |

***For customized options, please consult regional sales. And please confirm the model name and description before purchasing.
***The model name and description might vary due to inventory changes.

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SHENZHEN MAXTANG COMPUTER CO., LTD.
303, 3/F, Building 2, Runzhi R&D Center, Xin'an Street, Bao'an District, Shenzhen, China 518133
Tel.: +86 755 86143003 I Fax: +86 755 86143003 I info@datangpc.com

www.maxtangpc.com