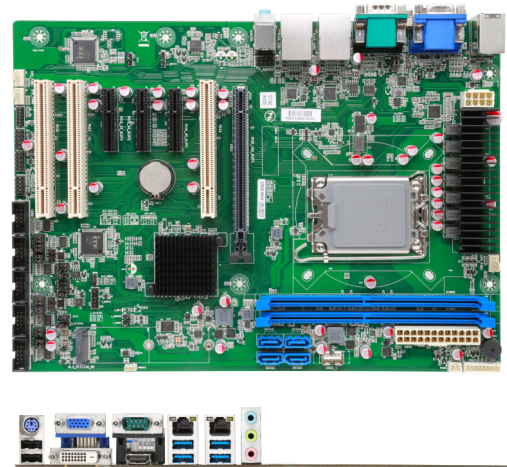


Intel® 12th/13th Generation Core™ Support MAX CPU, H610 Chipset, 1x PCIe 16, 3x PCIe 4, 3x PCI 6x COM, 10x USB, 2x LAN

## Features

- Supports Intel® 12th/13th generation Core™ i3/i5/i7/i9 CPU
- Adopting Intel® H610 chipset
- 6x COM, 10x USB, 2x Intel® GbE LAN
- 1x VGA, 1x HDMI, 1x DVI
- 1x PCIe x16, 3x PCIe x4, 3x PCI



## Specifications

Model	DMB-AH610
CPU	Support Intel® 12th/13th Generation Core / Pentium / Celeron Desktop CPU, LGA1700 Support MAX CPU TDP: 8+4 Core 65W
Chipset	Intel® Alder Lake PCH-S, H610, TDP 6W
Display [1]	1× DVI-D (DVI-I): Support DVI-D, max resolution up to 1920x1200@60Hz 1× HDMI 1.4b (TYPE-A): up to 4096x2160@30Hz 1× VGA (DB15/F): max resolution up to 1920x1200@60Hz
Memory [2]	Support DDR4-3200MHz, 2× Non-ECC U-DIMM Slot, up to 2× 32GB
Storage [3]	3×SATA3.0 7P Upright Connector 1× M.2 Key-M Slot(PCIE2x/SATA, Default SATA, Support SATA SSD,2242/2280)
Ethernet [5]	RJ45_USB1 (RJ45): 1× Intel I219-V GBE LAN Chip (10/100/1000 Mbps) RJ45_USB2 (RJ45): 1× Intel I225-V 2.5G LAN Chip (10/100/1000/2500 Mbps)
Audio	Realtek Audio HDA Codec, 1× Front Audio Header (Line-Out + MIC) 1× SPDIF Out Header 1× Line-out + Line-in + MIC 3.5mm Jack
Expansion Slots	1× PCI-E 16x Slot (PCIe 16X, GEN4) 2× PCI-E 4x Slot (PCIe 2X, GEN3) [6] 1× PCI-E 4x Slot (Pcle 2X, GEN3,PCIE_4x_SLOT3) [4] 3× PCI Slot 1× PCI CLK 66MHz Enable/Disable Select Jumper
COM	1× RS232 (COM1, DB9/M) 3× RS232 (COM2/5/6, BOX Header) 2× RS232/RS485(COM3-4,BOX Header) [7]
USB	4× USB3.0(TYPE-A, Rear IO) 2× USB2.0(TYPE-A, Rear IO) 1× USB2.0(Vertical TYEP-A, internal) [8] 3×USB2.0 (Header. Internal) [8]

## Specifications

<b>Other Ports [9]</b>	8× GPIO 1× PS/2 Connector (Keyboard & Mouse) 1× Front Panel Header (HDD LED+PWR LED+PWR ON+RESET) 1× ESPI Header (Debug Only) 1× SMBUS Header 2× System FAN Header 1× CPU FAN Header 1× Case Open Header 1× CMos Clear Jumper 1× AT or ATX Select Jumper 1× ME Flash Header 1× Power Monitor wafer
<b>TPM</b>	SLB 9670VQ2.0,TPM2.0 (not onboard by default), Support Intel PTT Default
<b>System</b>	Windows 10 IoT Enterprise 2021 LTSC, Windows 10(21H2), Windows 11(21H2) or later, Linux Kernel 5.17 or later
<b>Temperature</b>	Storage: -20~75°C Operating: 0~60°C
<b>BIOS</b>	AMI UEFI BIOS (Support Watchdog Timer)
<b>Power Supply</b>	ATX Standard (24P + 8P) 1× ATX 8P CPU Power Input Connector 1× ATX 24P Power Input Connector
<b>Factor</b>	305mm× 220mm

### Notes:

[1]: Intel® H610 supports three independent displays.

[2]:The maximum memory frequency depends on CPU. Intel® R680E supports ECC.

[3]: SATA signal of M.2\_PCISSD\_M1 colay with SATA.(BOM selectable)

[4]: PCIE 2xsignal of M.2\_PCISSD\_M1 colay with PCIE\_4x\_SLOT3.(BOM selectable)

[5]:RJ45\_USB1(RJ45)1219-v does not support Intel AMT 12.0 and Intel vPro competent by default.

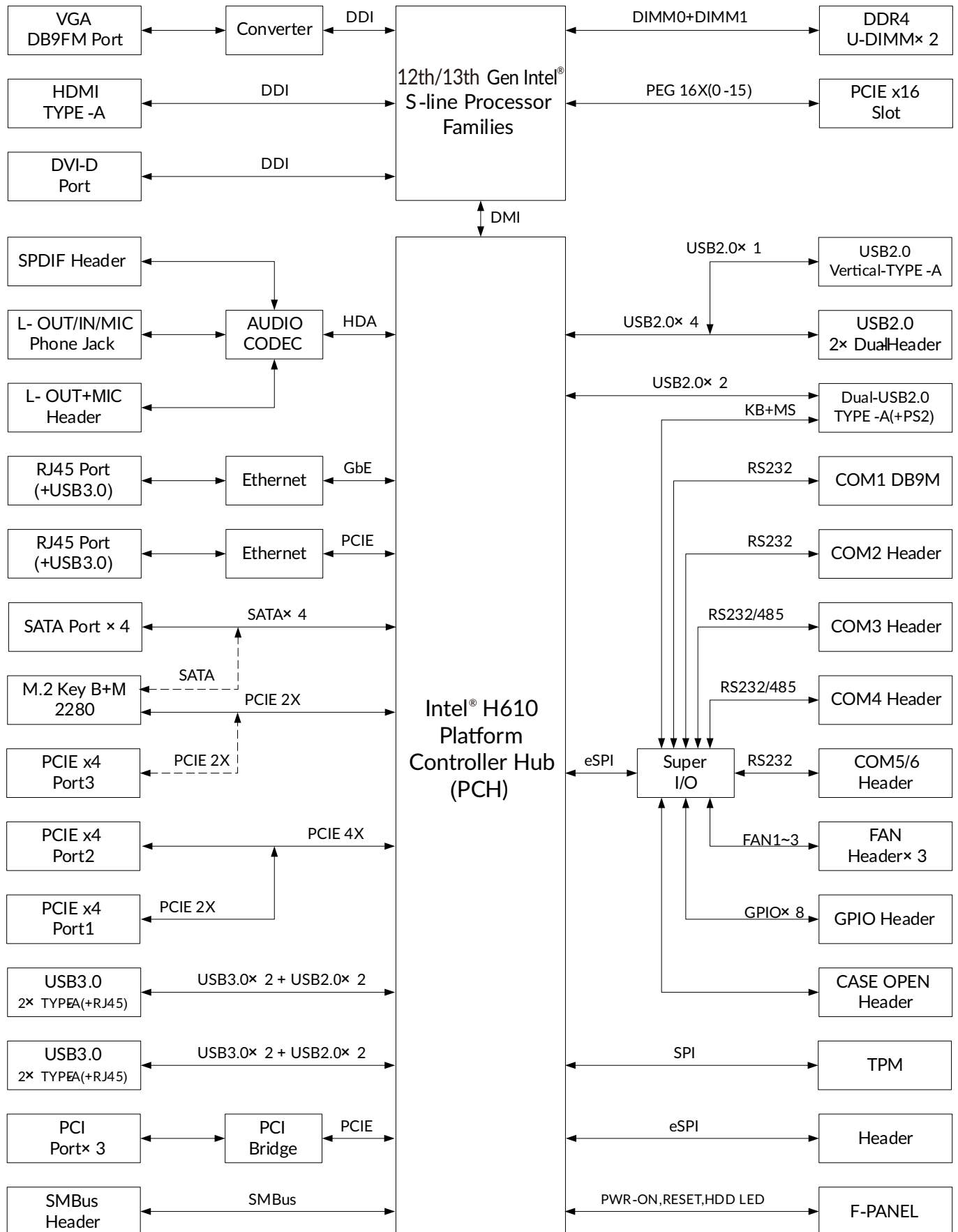
[6];PCIE\_4x\_SLOT1 and PCIE\_4x\_SLOT2 can support 2x PCIE 2x (default) or 1\*PCIE 4x .(BOM and BIOS selectable)

[7]: COM3 and COM4 are RS232 by default. COM3 can be RS485 selecting by jumper and setting BIOS to RTS mode.COM4can be RS485 selecting by jumper and setting BIOS to RTS mode.



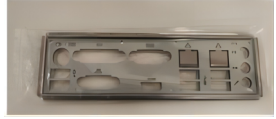
[8]: One of USB2.0 signal for F\_USB2\_1 colay with USB2\_1 TYPE-A connector, support USB2\_1 by default.

[9]: Intel® Kiosk Peripheral Management Utility (Intel KPM Ufility) function selection support, not on board by default.

## Functional Block Diagram



## Packing list

<p>COM data cable (single port) DB9 (with iron plate) to 10P 2.54MM spacing pin (plug the 10th hole), with a total length of 40cm cross connection</p>	<p>5pcs/set</p>	<p>COM data cable</p>	
<p>SATA data cable 7P-7P 180 ° -180 ° with shrapnel at both ends, with a total length of 50cm yellow wire</p>	<p>1pcs/set</p>	<p>SATA data cable</p>	
<p>IO blocking SVIO-312 with three layers and 2.5mm aluminum foil foam for selection (2× RJ45)</p>	<p>1pcs/set</p>	<p>IQ blank</p>	

## Ordering information

Product Model	Parameter
DMB-AH610	Intel® 12th/13th Generation Core™ Support MAX CPU, H610 Chipset, 1× PCIeX16, 3× PCIeX4, 3× PCI 6× COM, 10× USB, 2× LAN