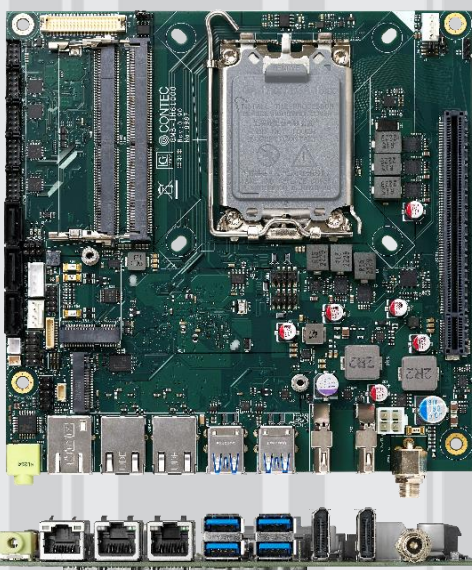


# GMB-IH61000

## Mini-ITX Industrial Motherboard

12<sup>th</sup> Gen. Alder Lake-S  
13<sup>th</sup> Gen. Raptor Lake-S  
Intel® Processors



### Areas of Application:

vending machine



Construction Building



Semiconductor Equipment Control



Logistics Warehouse



### Features

- Intel® 12<sup>th</sup> / 13<sup>th</sup> Gen. processor Alder Lake-S / Raptor Lake-S Platform
- 2x DDR5-5600 SO-DIMM, up to 64GB (Non-ECC support)
- Multi display supported: 2 x Display port 1.4 + 1 x LVDS
- 3 RJ-45 : 2 x 2.5Gbps +1 x 1Gbps network speeds
- 1x PCIe x16 (Gen4) slot, 1x M.2 key M, 1x M.2 key E
- 3x SATA port, 4x Serial port and 4x USB3.2 + 4x USB2.0
- Extend Peripherals Freely Rich Interface

### CPU Selection Guide

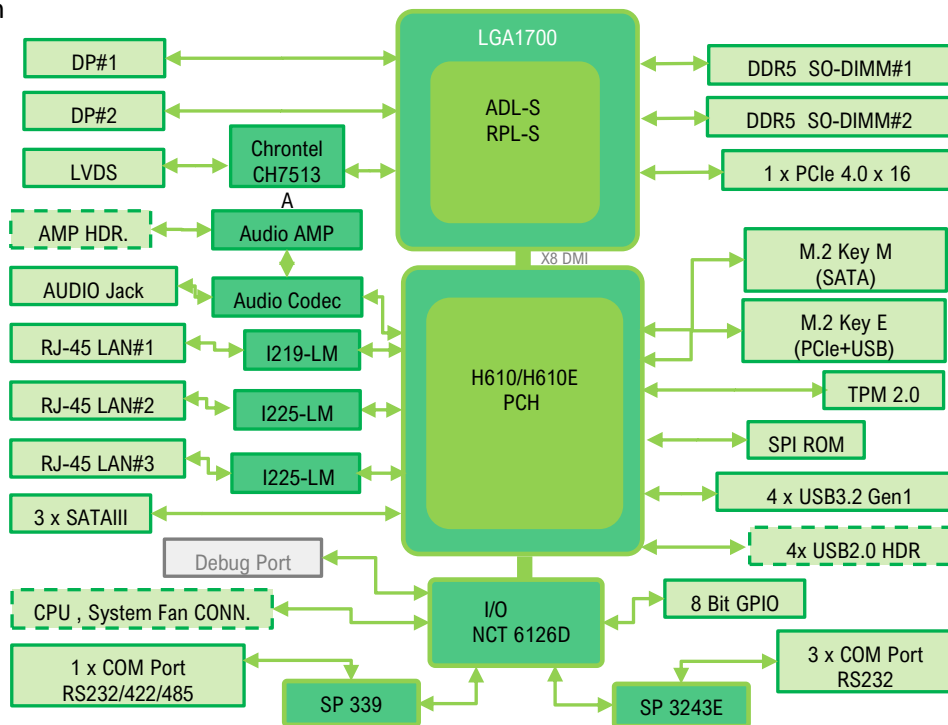
#### Embedded Options / Non-ECC memory supported

No.	CPU Part No. ADL-S / RDL-S	Cores (P+E) ADL-S / RDL-S	Intel® UHD Graphics
1	Celeron G6900E	2 (2+0)	710
2	Celeron G6900TE	2 (2+0)	710
3	Pentium Gold G7400E	2 (2+0)	710
4	Pentium Gold G7400TE	2 (2+0)	710
5	Core i3-12100E/ Core i3-13100E	4 (4+0)	730
6	Core i3-12100TE/ Core i3-13100TE	4 (4+0)	730
7	Core i5-12500E/ Core i5-13500E	6 (6+0)/ 14 (6+8)	770
8	Core i5-12500TE/ Core i5-13500TE	6 (6+0)/ 14 (6+8)	770
9	Core i7-12700E/ Core i7-13700E	12 (8+4)/ 16 (8+8)	770
10	Core i7-12700TE/ Core i7-13700TE	12 (8+4)/ 16 (8+8)	770
11	Core i9-12900E/ Core i9-13900E	16 (8+8)/ 24 (8+16)	770
12	Core i9-12900TE/ Core i9-13900TE	16 (8+8)/ 24 (8+16)	770

### Packing List

- 1x Motherboard 、 1x I/O Shield Panel

## Block Diagram



## Specifications

<b>PROCESSOR</b>	Intel® 12 <sup>th</sup> / 13 <sup>th</sup> Gen Core™ Processors CPU in LGA1700 socket up to 65W/35W TDP
<b>CHIPSET</b>	Intel® H610 / H610E Express Chipset
<b>BIOS</b>	AMI UEFI BIOS
<b>MEMORY</b>	Support DDR5-5600MHz (Non-ECC) Up to 64GB in two SO-DIMM sockets
<b>SATA</b>	3x SATA 3.0 on board (2x SATA Power Connector)
<b>WATCHDOG TIMER</b>	Programmable by embedded controller
<b>HARDWARE MONITORING</b>	System monitor (Voltage, Fan Speed and Temperature)
<b>EXPANSION INTERFACE</b>	1x PCIe x16 (Gen 4) slot 1x M.2 Key M Type 2280 (SATA Signal) 1x M.2 Key E Type 2230 (USB2.0, PCIe x1 Signal)
<b>AUDIO</b>	Audio Jack Line-out (Rear I/O) Line-out/ Mic-in (by internal 2.54mm pin header)
<b>ETHERNET</b>	1x 10/100/1000 BASE-T(Intel® i219LM ) 2x 10/100/1000/2500 BASE-T(Intel® i225 )
<b>SERIAL PORT</b>	2 x RS232/422/485 (by Internal pin header) 2 x RS232 (by Internal pin header)
<b>USB PORT</b>	4x USB3.2 (Gen1) on rear I/O (Type A connector) 4x USB2.0 (by Internal pin header)
<b>GPIO</b>	1x GPIO Connector: 8-bit general purpose input/output (TTL level)
<b>GRAPHIC CONTROLLER</b>	Intel® graphic UHD 710 /UHD 730 or UHD 770 (By CPU SKU)
<b>DISPLAY INTERFACE</b>	2x Display port 1.4 on rear I/O ( 4096×2160 @60Hz ) 1x LVDS (1920x1080)
<b>TPM</b>	Onboard TPM 2.0
<b>DIMENSIONS (L X W)</b>	170 mm(6.7") x 170mm(6.7")
<b>POWER SUPPLY</b>	DC-Jack support 12V/19V/24V adapter Internal 4-pin (2x2) power connector
<b>ENVIRONMENT</b>	Operation Temperature: 0 to 60°C Storage Temperature: -40 to 80°C Relative Humidity: 5% to 95%, non-condensing
<b>OS DRIVER SUPPORT</b>	Windows 10 IoT Enterprise 2021 LTSC (64 bit)
<b>CERTIFICATE</b>	CE / FCC / UKCA / VCCI (class B) , RoHS2.0

## Ordering Guide

● GMB-IH61000

Mini-ITX MB 12<sup>th</sup> / 13<sup>th</sup> Gen Intel Core Processor, Intel H610/H610E Chipset