

GMB-AQ47001

Intel® 10th Gen Core™ Comet Lake –S Platform Processor
ATX Industrial Motherboard



Features

- Intel® 10th Generation processor Comet Lake-S Platform
- 4 x DDR4-2666 Long-DIMM, up to 128GB (Non-ECC support)
- 4 Display : 2x Display port +1x HDMI ,and VGA Port
- 2 RJ-45 : 1x 2.5 Gigabit Ethernet + 1x 1Gigabit Ethernet
- 2x PCIe x16 Slots(1x 16 Mode / 2x 8 Mode),3x PCIe x4 slots+ 2x PCI slots
- 6x SATA port ,5x Serial port , Three type M.2 socket
- Extend Peripherals Freely Rich Interface

CPU Selection Guide

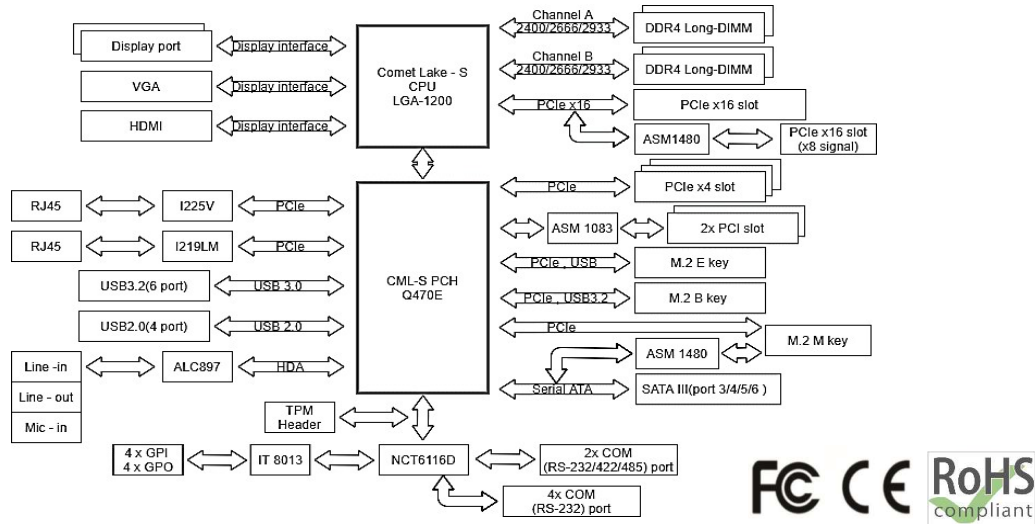
Non-ECC memory supported

No.	CPU Type list	SPEC.	Remark
1	Celeron G5900E (3.2GHz)	58W, L3:2 MB Cache	Intel® UHD 610
2	Celeron G5900TE (3.0GHz)	35W, L3:2 MB Cache	Intel® UHD 610
3	Pentium Gold G6400E (3.8GHz)	58W, L3:4 MB Cache	Intel® UHD 610
4	Pentium Gold G6400TE (3.2GHz)	35W, L3:4 MB Cache	Intel® UHD 610
5	Core i3-10100E (3.2GHz ~ 3.8GHz)	65W, L3: 6 MB Cache	Intel® UHD 630
6	Core i3-10100TE (2.3GHz ~ 3.6GHz)	35W, L3: 6 MB Cache	Intel® UHD 630
7	Core i5-10500E (3.1GHz ~ 4.2GHz)	65W, L3: 12 MB Cache	Intel® UHD 630
8	Core i5-10500TE (2.3GHz ~ 3.7GHz)	35W, L3: 12 MB Cache	Intel® UHD 630
9	Core i7-10700E (2.9GHz ~ 4.5GHz)	65W, L3: 16 MB Cache	Intel® UHD 630
10	Core i7-10700TE (2.0GHz ~ 4.4GHz)	35W, L3: 16 MB Cache	Intel® UHD 630
11	Core i9-10900E (2.8GHz ~ 4.7GHz)	65W, L3: 20 MB Cache	Intel® UHD 630
12	Core i9-10900TE (1.8GHz ~ 4.5GHz)	35W, L3: 20 MB Cache	Intel® UHD 630

Packing List

- 1x Motherboard
- 1x I/O Shield Panel
- 1x Installation CD

Block Diagram



Specifications

PROCESSOR	Intel® 10 th Gen Core™ Processors CPU in LGA1200 package
CHIPSET	Intel® Q470E Express Chipset
BIOS	AMI UEFI BIOS
MEMORY	Support dual channel DDR4-2400/2666/2933MHz (Non-ECC) Up to 128GB in four long-DIMM sockets
STORAGE I/F	6x SATAIII ports(port1 /port2 shared with M.2 Key M)
WATCHDOG TIMER	By Software Programmable
HARDWARE MONITORING	System monitor(Voltage,Fan Speed and Temperature)
EXPANSION INTERFACE	2x PCIe x16 slots(1x 16 mode / 2x 8 mode) 3x PCIe x4 slots+ 2x PCI slots One M.2 (Key E_2230) for Wireless (PCIe x1 / USB2.0) One M.2 (Key M_2242/2260/2280) for SSD(PCIe x4 / SATA) One M.2 (Key B_3042/3052, 2260/2280) for Wireless(PCIe x1 / USB3.2 Gen1 / USB2.0) One SIM slot
AUDIO	Audio Interface: Line-in / Line-Out / Mic-In (Rear I/O)
ETHERNET	Intel® I219LM(1G) and Intel® I225V(2.5G) Ethernet controller Supports one 10/100/1000 Mbps Ethernet port (s) via PCI Express x1 bus Supports one 10/100/1000/2500 Mbps Ethernet port (s) via PCI Express x1 bus
SERIAL PORT	2 x RS232/422/485: 1x D-SUB9P on rear I/O + 1x pin header on board 4 x RS232 by 2.54mm pin header on board
USB PORT	4x USB3.2 (Gen2) on rear I/O (3x type A + 1x type C) 2x USB3.2(Gen1) on board by pin header 2x USB2.0 on board pin header 2x USB2.0 by vertical type A connectors on board
GPIO	1x Pin Header (8bit GPIO)
GRAPHIC CONTROLLER	Intel® graphic UHD 610 or UHD 630 (By CPU SKU)
DISPLAY INTERFACE	4 display supported: DP: Two DP port on rear I/O, resolution up to 4096x2160 HDMI: One HDMI connector on rear I/O, resolution up to 4096x2160 VGA: One VGA port on rear I/O resolution up to 1920x1200
TPM	Onboard TPM header *1
DIMENSIONS (L X W)	304.8(12.0") x 243.84(9.6") mm
POWER SUPPLY	ATX 24pin power connector , 12V 8pin power connector
ENVIRONMENT	Operation Temperature: 0 to 60°C Storage Temperature: -20 to 80°C Relative Humidity: 5% to 95%, non condensing
OS DRIVER SUPPORT	Windows 10 IoT Enterprise 2019 LTSC
CERTIFICATE	CE / FCC , RoHS2.0

Ordering Guide

● **GMB-AQ47001** ATX IMB 10 Gen. Intel Core Processor, Intel Q470E Chipset

*1 TPM 2.0 Module by MOQ require