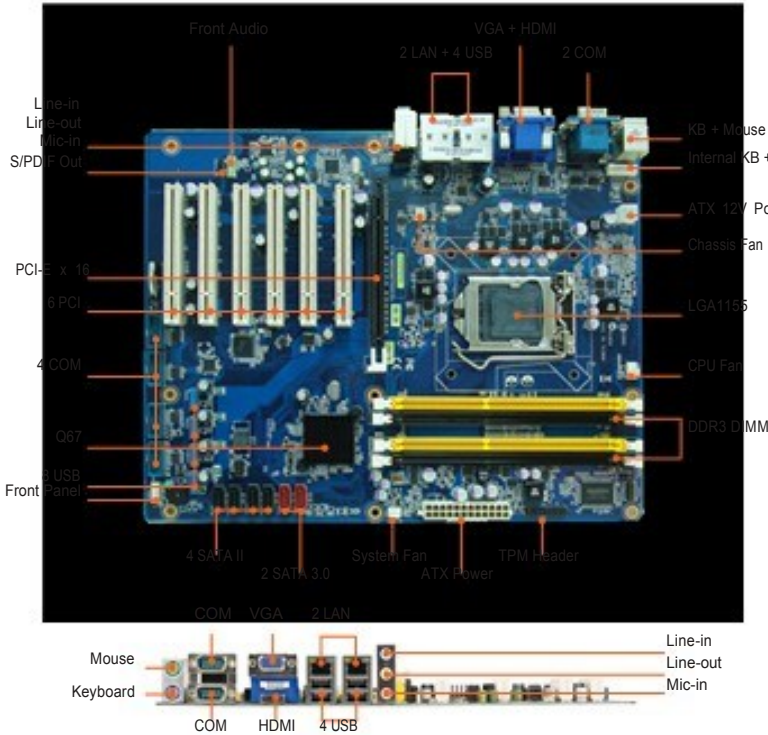


# GMB-AQ670-LLVA

Intel® Q67 with Core™ i7/ i5/ i3 ATX Motherboard



## Features

- Intel LGA1155 socket supports Intel Core i7/ i5/ i3 CPU
- Intel Q67 Chipset
- Intel GMA HD 2000/ 3000 supports DirectX 10.1, OpenGL 3.0 and VGA + HDMI dual display
- Four 240-pin DIMM slots support up to 16GB dual channel 1066/ 1333MHz DDR3 SDRAM
- Realtek ALC892 supports 5.1 Channel HD Audio
- Dual Intel Gigabit LAN : Intel 82579LM (LAN 1), Intel 82583V (LAN 2)
- 1 PCI-E x 16 , 6 PCI
- 2 SATA 3.0 and 4 SATA II supports AHCI, RAID 0, 1 and TPM 1.2 (optional)
- 6 COM, 12 USB 2.0
- 8-bit GPIO

## Specifications

System	
<b>CPU</b>	Intel LGA1155 socket supports Intel Core i7/ i5/ i3 CPU
<b>BIOS</b>	AMI 16Mb SPI
<b>System Chipset</b>	Intel Q67
<b>I/O Chip</b>	Nuvoton NCT6776F
<b>System Memory</b>	For 240-pin DIMM slots support up to 16GB dual channel DDR3 1066/ 1333 SDRAM
<b>Watchdog Timer</b>	Reset : 1 to 255 sec/min per step
<b>H/W Status Monitor</b>	Monitoring temperature, voltage and cooling fan status. Auto throttling control when CPU overheats.
<b>Expansion</b>	1 PCI-E x 16 , 6 PCI
<b>Power State</b>	S1, S3, S4, S5
<b>Wake up on LAN or Ring</b>	LAN (WOL) and Ring (WO)
<b>SmartFan Control</b>	Yes

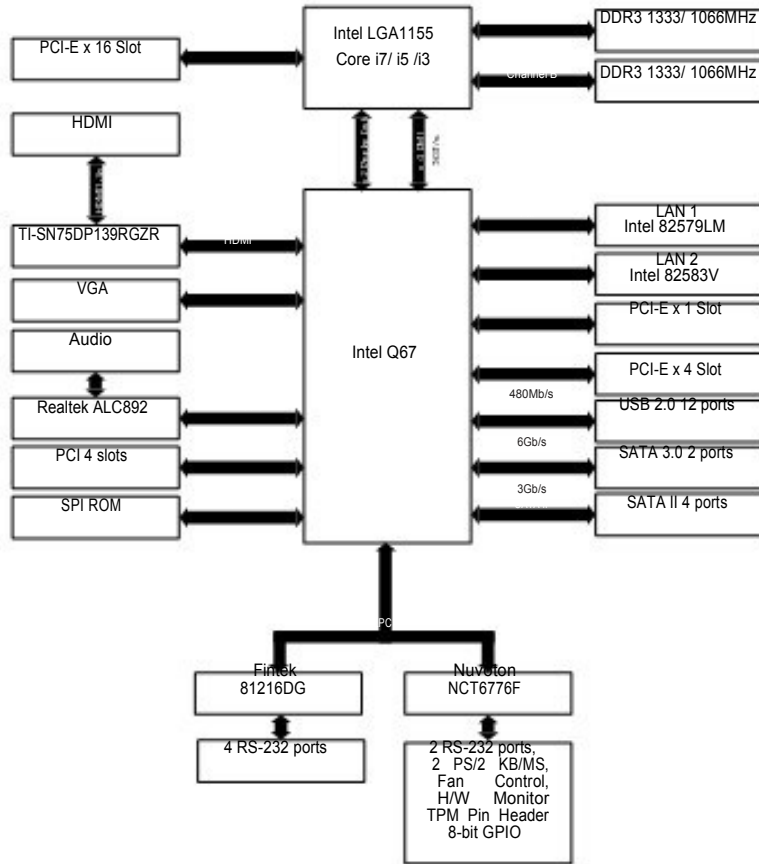
I/O	
<b>MIO</b>	6 COM RS-232, 2 SATA 3.0, 4 SATA II, 1 HDMI, 1 VGA, 2 LAN, 1 PS/2 Keyboard, 1 PS/2 Mouse
<b>USB</b>	12 USB 2.0 (4 Rear, 8 Internal)
<b>GPIO</b>	8-bit General Purpose I/O for 4-bit DI and 4-bit DO

Display	
<b>Chipset</b>	Intel GMA HD 2000/ 3000
<b>Display Memory</b>	Shared Memory, up to 1.7GB
<b>Dual Display</b>	VGA + HDMI
<b>VGA</b>	Onboard, supports max resolution 2048 x 1536 (@60Hz)
<b>HDMI</b>	Onboard HDMI 1.3, supports max resolution 1920 x 1080

Audio	
<b>Audio Codec</b>	Realtek ALC892, 5.1 Channel HD Audio
<b>Audio Interface</b>	Line-in, Line-out, Mic-in, S/PDIF Out, Front Audio Header

Ethernet	
<b>LAN 1</b>	Intel 82579LM Gigabit LAN supports iAMT 7.0
<b>LAN 2</b>	Intel 82583V Gigabit LAN

# Block Diagram



## Back Panel I/O Port

- 1 PS/2 Mouse
- 1 PS/2 Keyboard
- 1 VGA Port
- 1 HDMI Port
- 2 COM RS-232 Ports
- 4 USB 2.0/ 1.1 Ports
- 2 LAN RJ45 Ports
- 1 Audio I/O (3 Jacks)

## Internal I/O Connector

- 1 PS/2 KB/MS (6-pin)
- 4 USB Connectors support 8 USB Ports
- 4 COM RS-232 Connectors
- 6 SATA Connectors
- 1 Front Audio Header
- 1 CPU Fan Connector (4-pin)
- 1 System Fan Connector (3-pin)
- 1 Chassis Fan Connector (3-pin)
- 1 GPIO Header
- 1 TPM Pin Header (20-pin)

## Mechanical & Environmental

<b>Power Requirement</b>	+12V	+5V	+3.3V	5VSB
	6.86A	2.33A	1.67A	0.95A

**Power Type** ATX (supports AT Mode)

**Power Connector** 1 24-pin ATX Power Connector,  
1 4-pin ATX 12V Power Connector

**Operating Temperature** 0 to 60°C (32 to 140°F)

**Operating Humidity** 0% to 90% relative humidity, non-condensing

**Size (L x W)** 12" x 9.6" (305 x 244 mm)

**Weight** 1.80 lbs (0.8 Kg)