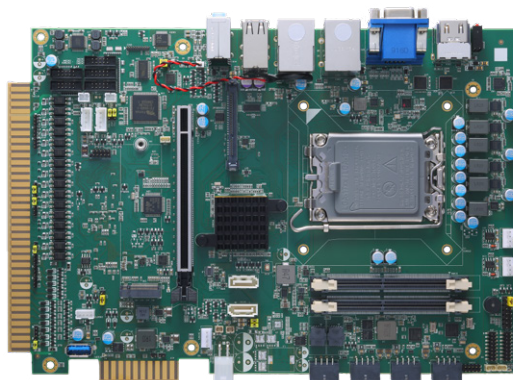
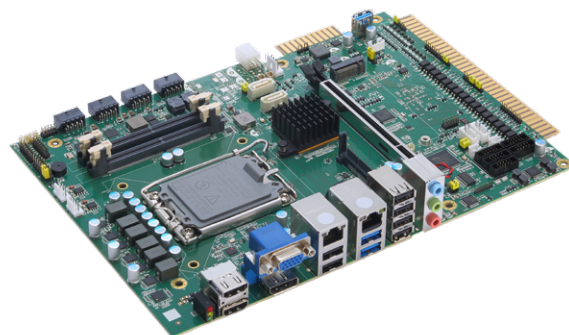


# GMB851

JAMMA-Type Gaming Control Board with 12th/13th/14th Gen Intel® Core™ Processor



▲ I/O view



▲ Side view

## Features

- Intel® 12th/13th/14th Gen Core™ processor
- 2 x sockets of DDR4 SO-DIMM 260-pins
- PCIe x16 expansion
- 2 x SATA DOM, 1 x CFAST, 1 x M.2 (PCIe Gen 3 x4)
- Optional support TPM 2.0 and secure BIOS
- 1 x VGA, 2 x HDMI, 1 x DP++
- 72-pins JAMMA interface
- Optional support 4ch LED strip, up to 4000pcs LED chips
- 6W+6W audio amplified output

## Specifications

CPU	JAMMA-type gaming system with Intel® 12th/13th/ 14th Gen Core™ processor, TDP 65W
Chipset	Support H610, Q670
System Memory	2 x DDR4-3200, 260-pin SO-DIMM max. up to 64GB
BIOS	AMI-uEFI TrustedBoot (Bios secure boot) secure hash and public key algorithm
Graphic	1 x VGA. D-Sub15 connector 2 x HDMI 1 x DP++ DirectX 12.1 compliant, OpenGL ES 3.1, OpenGL 4.6, OpenCL™ 1.2
Security	AMI BIOS Secure BIOS & storage integrity, by request TPM 2.0 on board (option)



## Specifications

Storage	2 x SATA DOM, support 7-pin power 1 x vertical CFast socket (option) 1 x M.2 M-key (PCIe Gen 3 x4) NVMe supported
Expansion	1 x PCIe x16 slot
USB	USB 3.2 - 2 x external type-A connector - 1 x Internal vertical Type-A connector
	USB 2.0 - 2 x external type-A connector - 4 x external type-A connector (Q670)/2 x external Type-A connector (H610)
COM Port	6 x COM port by pin header and golden finger - 1 x full COM DB9 connector (COM1) support RS-232/422/485 - 1 x full COM DB9 connector (COM2) support RS-232/TTL - 2 x full COM DB9 connector (COM3, COM4) support RS-232/ccTalk by pin header - 2 x simple COM by pin header or JAMMA 72-pin golden finger
Audio	5.1-ch audio output by jack connector 6W + 6W (R/L) class-D amplified output by JAMMA 72-pin
LAN	2 x ethernet GbE by RJ-45 connector
Gaming I/O	Intrusion type - 2 x by internal pin header - 7 x by JAMMA 72-pin SRAM/MRAM(battery-less backup) - 2 x bank supported with battery backup, support up to 8MB, 16MB by request - Default 2MB by single bank DI/DO - 27 x bits isolated digital input - 27 x bits high current output. 0.5A/30V Tachometer - 2 x fan speed detection Event log - Up to 200 event logs EEPROM - Default 1 KB Low battery warning for SRAM and intrusion - 2 x low battery detection LED strip control (option) - 4-ch LED strip support - Support up to 4000 LED
Indicator	Power, HDD, Low Bat
OS	Windows Linux
Power	DC + 12V/DC + 5V Power failure detection
EMC	CE/FCC Class A Air:-/+ 8kv criteria B, Contact: -/+4kv criteria B
Environment	Operation temperature: 0°C to +60°C Storage temperature:-20°C to +80°C Relative humidity: 10% to 95% (non-condensing)
Dimension (W x D)	275.4 x 192.5mm

## Ordering Information

GMB851-Q670	12th/13th/14th Gen Intel® Core™ Mini-ITX board with Q670 PCH, DP++, 2 x HDMI, 1 x VGA, 2 x GbE, 6 x COM, 9 x USB, 12V DC-in
GMB851-H610	12th/13th/14th Gen Intel® Core™ Mini-ITX board with H610 PCH, DP++, 2 x HDMI, 1 x VGA, 2 x GbE, 6 x COM, 7 x USB, 12V DC-in

### Optional Accessories

713000001500	LGA1700 cooler kit, 1U chassis compatible, 65W
713000001600	LGA1700 cooler kit, 1U chassis compatible, 35W
594Q3002810E	USB 3.0 cable 90D 9P AM/9P AF 20cm