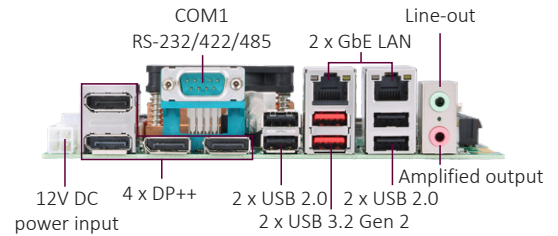
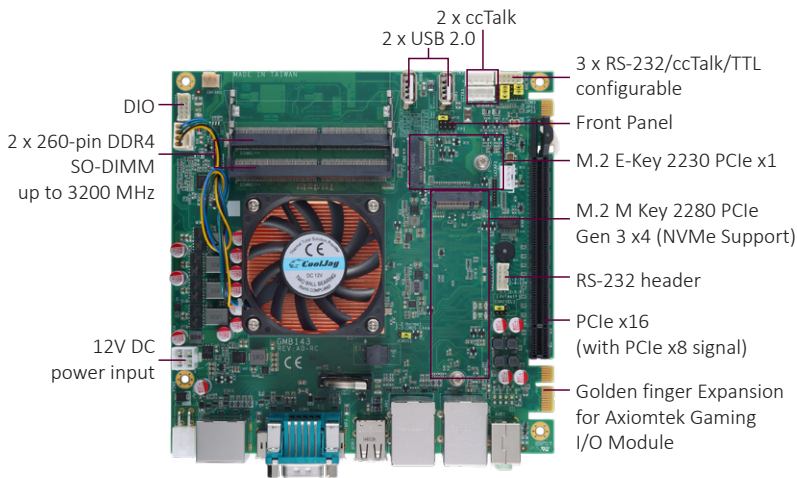


# GMB143

AMD Ryzen™ Embedded R2000 SOC Mini-ITX Board



▲ Side view

## Features

- High performance AMD platform
- GLI verified TrustedBoot
- Supports NVMe M.2 M Key storage and M.2 E Key expansion
- Lifetime long-term supply

## Specifications

CPU	AMD Ryzen™ Embedded R2544, Quad Core, 8 CU, 3.35GHz (3.7GHz), 35-54W AMD Ryzen™ Embedded R2514, Quad Core, 8 CU, 2.1GHz (3.7GHz), 12-35W AMD Ryzen™ Embedded R2314, Quad Core, 6 CU, 2.1GHz (3.5GHz), 12-35W
System Memory	2 x DDR4 SO-DIMM up to 3200 MHz, max. up to 32 GB
BIOS	AMI-uEFI TrustedBoot (Bios secure boot) secure hash and public key algorithm
Watchdog Timer	1 sec. to 255 min.
Expansion Interface	1 x PCIe x16 (PCIe x8 signal) 1 x M.2 E Key (2230, PCIe x1) 2 x PCIe golden finger expansion for Axiomtek Gaming I/O Module
Power Input	DC +12V
Dimensions	170 x 170 mm
Operation Temperature	0°C to +60°C (+32°F to +140°F)
Relative Humidity	10 % to 90 %, non-condensing
Security	- TPM 2.0 engine - RSA2048 and AES256 hybrid encryption

## Specifications

### Display

Graphics	Intel® UHD Graphics 770 driven by Xe Architecture New Intel® Xe Graphics architecture with SRIOV, Genlock	
Display Interface	1 x HDMI 2.0 (up to 4096 x 2160 @ 60Hz) 3 x DP++ (up to 4096 x 2160 @ 60Hz) H610 supports triple displays	

### I/O

USB	External	2 x USB 3.2 Gen 2 x1 (10Gb/s) (USB Type-A) 4 x USB 2.0 (USB Type-A)
	Internal	2 x USB 2.0 (Vertical USB Type-A)
Serial Interface	External	1 x full RS-232 DB9 (COM1 supports RS-232/422/485)
	Internal	1 x full RS-232 box header (COM2) 1 x 3 in 1 Simple RS-232 box header (COM3-5) **COM3 supports TTL/ COM4-5 support ccTalk
Audio	HD audio 5.1 channels Line-out or stereo 6 W + 6 W audio amplified output	
Storage	1 x M.2 M Key (2280, PCIe x4) NVMe support 3 x power conn. for SATA expansion (2 x 5V & 1 x 12V)	
Ethernet	2 x GbE LAN	
GPIO	1 x 8-bit GPIO box header	

### Software

OS Support	Windows® 11 IoT Enterprise, Linux
Others	Optional SAS 6.02 COM port driver (via Gaming I/O module)

## Ordering Information

GMB143-R2544	Mini-ITX board supports AMD Ryzen™ Embedded R2544 with VEGA graphics, 4 x DP++, 5 x COM, 8 x USB, 2 x GbE, audio, M.2, DC 12V input
GMB143-R2514	Mini-ITX board supports AMD Ryzen™ Embedded R2514 with VEGA graphics, 4 x DP++, 5 x COM, 8 x USB, 2 x GbE, audio, M.2, DC 12V input
GMB143-R2314	Mini-ITX board supports AMD Ryzen™ Embedded R2314 with VEGA graphics, 4 x DP++, 5 x COM, 8 x USB, 2 x GbE, audio, M.2, DC 12V input