

# AmITX-BE-G

## Mini-ITX Industrial Motherboard with AMD® Embedded R-Series APU for Gaming Applications



### Features

- AMD® Embedded R-Series APU with A77E Fusion Controller Hub
- Dual SODIMM socket DDR3L-1666 memory (up to 16 GB)
- PCIe x16, PCIe x1 and Mini PCIe expansion
- 4 DisplayPort and optional LVDS output



### Specifications

#### Processor & System

CPU	RX-427BB 2.7GHz (3.6GHz boost), 35W (4C/8CU) RX-425BB 2.5GHz (3.4GHz boost), 35W (4C/6CU) RX-225FB 2.2GHz (3.0GHz boost), 17W (2C/3CU)
Memory	Dual channel non-ECC 1333/1666 MHz DDR3L memory up to 16 GB in dual vertical SODIMM sockets
BIOS	AMI EFI with CMOS backup in 8MB SPI BIOS BIOS socket onboard and SPI header for external BIOS Optional TPM module soldered onboard
SEMA Support	Supports: voltage/current monitoring, power sequence debug support, AT/ATX mode control, logistics and forensic information, flat panel control, general purpose I <sup>2</sup> C, failsafe BIOS (dual BIOS), watchdog timer, triple smart fan control
Debug Header	40-pin multipurpose flat cable connector. Use in combination with DB-40 debug module providing BIOS POST code LEDs, BMC access, SPI BIOS flashing, power testpoints, debug LEDs

#### I/O Interfaces

Expansion Slots	1 PCIe x16 Gen3 slot (PCIe 3.0) 1 PCIe x1 Gen2 slot (PCIe 2.0) 1 full-size Mini PCIe slot supporting PCIe/mSATA and USB (on the top side) 1 half-size Mini PCIe slot supporting PCIe and USB (on the bottom side) 1 SPI header for external BIOS
Serial ATA	3x SATA 6.0 Gbps ports Ports 0 and 1 provide clearance for SATADOMs
USB	4x USB 3.0 and 4x USB 2.0 on Rear I/O 2x USB 2.0 on Frontpanel header 2x USB 2.0 on standard header 1x USB 2.0 on vertical connector with keep out area for dongle 1x USB 2.0 on Mini PCIe and 1x USB 2.0 on mSATA slot
KB/MS	1x PS/2 internal header
Serial Ports	1x RS-232/422/485 on internal header 3x RS-232 on internal headers
Digital IO	8 GPI, 8GPO on internal feature connector

#### Audio

Audio Codec	Realtek® ALC886
Interfaces	7.1 channel audio via 5 jacks and S/PDIF output on rear I/O 7.1 channel audio signals and S/PDIF output on internal header

#### Display

Graphics core	AMD® Radeon HD 9000
DisplayPort	4 outputs with resolution up to 4096 x 2160 @ 60Hz
LVDS	Optional single/dual channel 24-bit up to 1920 x 1200 @ 60 Hz

#### Ethernet

Controller	2x Intel® i210 (MAC/PHY) Ethernet controller
Interface	PCI Express x1 Bus
Wake On LAN	Yes

#### Power

Standard Input	ATX = 12V ±5%/5Vsb ±5% by internal header AT = 12V ±5% by internal header
Peripherals output	Onboard headers for fan and SATA power

#### Mechanical and Environmental

Form Factor	Mini-ITX
Dimensions	170 mm x 170 mm (L x W)
Operating Temp.	0°C to +60°C
Storage Temp.	-20°C to +80°C
Certifications	CE, FCC Class A
Relative Humidity	10% to 90%, non-condensed

### Ordering Information

Model Number	Description/Configuration
AmITX-BE-G-RX427BB	Mini-ITX with AMD® RX-427BB
AmITX-BE-G-RX425BB	Mini-ITX with AMD® RX-425BB
AmITX-BE-G-RX225FB	Mini-ITX with AMD® RX-225FB