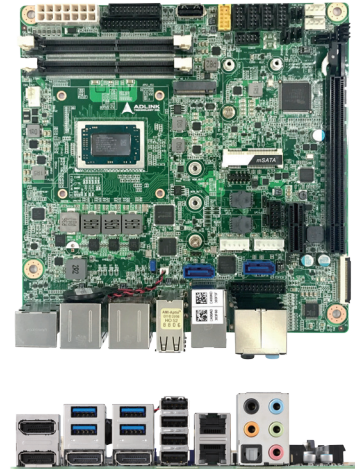


AmITX-RZ-G

Mini-ITX Embedded Board with AMD® Ryzen™ APU

Features

- AMD® Ryzen™ Embedded V1000 processor family
- Up to 32GB dual SODIMM socket DDR4
- PCIe x16, PCIe x1, M.2 and Mini-PCIe expansion
- 4x DisplayPort



Specifications

Processor & System

CPU

AMD® Ryzen™ Embedded V1000 Processors
 AMD® Ryzen™ Embedded V1807B 3.33GHz (3.8GHz Boost), 54W (4C/11CU)
 AMD® Ryzen™ Embedded V1756B 3.25GHz (3.6GHz Boost), 54W (4C/8CU)
 AMD® Ryzen™ Embedded V1605B 2.0GHz (3.6GHz Boost), 25W (4C/8CU)
 AMD® Ryzen™ Embedded V1202B 2.3GHz (3.2GHz Boost), 25W (2C/3CU)

Memory

Dual channel ECC 3200/2400MHz DDR4 memory up to 32 GB in dual vertical SODIMM sockets

BIOS

AMI EFI in 16MB SPI BIOS
 Optional socket SPI BIOS socket onboard and SPI header for external BIOS, dual BIOS support

TPM

Infineon SLB9665

Board Management Controller

Supports: voltage monitoring, system and CPU temperature monitoring, smart fan control, logistics and forensic information, general purpose I²C, watchdog timer

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

1x PCIe x16 Gen3 slot (PCIe x8 signal)
 1x PCIe x1 Gen3 slot (PCIe 3.0)
 1x full-size Mini-PCIe slot (for MSATA device)
 1x M.2 (M key, 2242/2260/2280, support NVMe) (PCIe x2 signal)
 1 SPI header for external BIOS

Serial ATA

2x SATA 6 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 header
 1x USB 2.0 on vertical connector with space for dongle

Serial Ports

1x RS-232/422/485 on internal header
 3x RS-232 on internal headers
 1x CCTALK x2

Digital IO

8 GPIO on internal feature connector

Audio

Audio Codec

Realtek® ALC892

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

Note: "Build option" indicates an alternative BOM configuration to support additional or alternative functions that are not available on the standard product.
 Be aware that part numbers for SKUs with "build options" will need to be created and may cause production lead times.

Specifications

- **Display**

Graphics core

"Vega" GPU with up to 11 Compute Units

DisplayPort

4x outputs with resolution up to 4096 x 2160 @ 60Hz

- **Ethernet**

Controller: 2x Intel® i211AT Ethernet controller

Interface: PCI Express x1 Bus

Wake On LAN: Yes

- **Power**

Standard Input: ATX = 12V $\pm$ 5%/5Vsb $\pm$ 5% from internal header

AT = 12V $\pm$ 5% from 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 Temperature

Standard: 0°C to +60°C

Certifications

CE, FCC Class A

Relative Humidity

40° C @ 95% RH Non-condensing, Non-operating

Ordering Information

- **AmITX-RZ-G/V1202B**

Mini-ITX gaming MB with AMD Ryzen™ Embedded V1202B processor

- **AmITX-RZ-G/V1605B**

Mini-ITX gaming MB with AMD Ryzen™ Embedded V1605B processor

- **AmITX-RZ-G/V1756B**

Mini-ITX gaming MB with AMD Ryzen™ Embedded V1756B processor

- **AmITX-RZ-G/V1807B**

Mini-ITX gaming MB with AMD Ryzen™ Embedded V1807B processor

Optional Accessories

- **30-20876-0000**

COM Port Cable, 1 Port, 25cm

- **30-20874-1000**

USB 2.0 Cable, 2 ports, 20cm

- **32-20809-0000-A0**

AMD APU Cooler, H=64.4mm, 54W

- **32-20583-1010**

AMD APU Cooler, H=35mm, 35W

Packing List

- **30-20872-0000**

ATX/AT Power Cable

- **30-20875-0000**

SATA Dual Power Cable

- **30-10057-0600**

SATA Cable

- **34-25316-1010**

Rear I/O Shield

Functional Diagram

