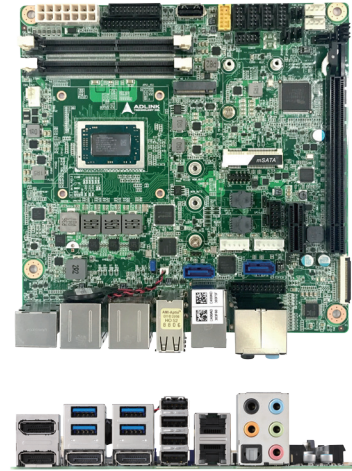


AmITX-RZ-G

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

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 ±5%/5Vsb ±5% from internal header

AT = 12V ±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

