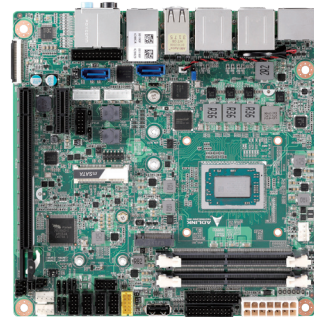


AmITX-RZ-G

Mini-ITX Embedded Board with AMD® Ryzen™ APU

Features

- AMD® Ryzen™ Embedded R2000 processor family
- Up to 32GB dual SODIMM socket DDR4
- PCIe x16, PCIe x1, M.2 and Mini-PCIe expansion
- 4x DisplayPort



AMD® Ryzen™ Embedded R2000 Series

Specifications

• Processor & System

APU

AMD® Ryzen™ Embedded R2000 Processors
 AMD® Ryzen™ Embedded R2544 3.35GHz (3.7GHz Boost), 54W (4C/8CU)
 AMD® Ryzen™ Embedded R2314 2.1GHz (3.5GHz Boost), 25W (4C/4CU)

Memory

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

BIOS

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

TPM2.0

ISLB9665TT2.0

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 3.0 x2 signal)
 1 SPI header for external BIOS

Serial ATA

2x SATA 6 Gbps ports (Jumper select NA/3.3V/5V for SATA1 and SATA2 to deliver power by SATA pin7; Default is NA)

2x SATA power connector

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 on internal header

Digital IO

8 GPIO on internal feature connector

• Audio

Audio Codec

Realtek® ALC888S

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 8 Compute Units

DisplayPort

Up to 4x DisplayPort v1.2 with max resolution of 3840x2160@60Hz 4x DisplayPort

• Ethernet

Controller: 2x Intel® I225V 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/R2544

Mini-ITX gaming MB with AMD Ryzen™ Embedded R2544 processor

• AmITX-RZ-G/R2314

Mini-ITX gaming MB with AMD Ryzen™ Embedded R2314 processor

Optional Accessories

• 30-20876-1000

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

• 30-20872-0000

ATX/AT Power Cable

• 30-20875-0000

SATA Dual Power Cable

• 30-10057-0600

SATA Cable

Packing List

• 34-25316-1010

Rear I/O Shield

AmITX-RZ-G

Functional Diagram

