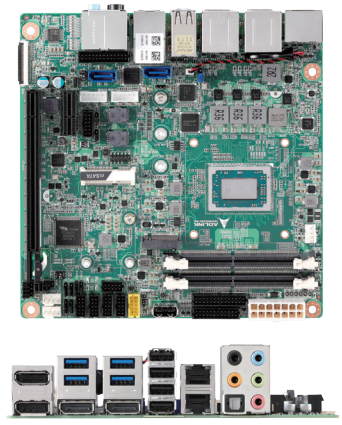
AmITX-RZ-G

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 I^2C, 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

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.

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AmITX-RZ-G

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
- **32-20917-0000-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

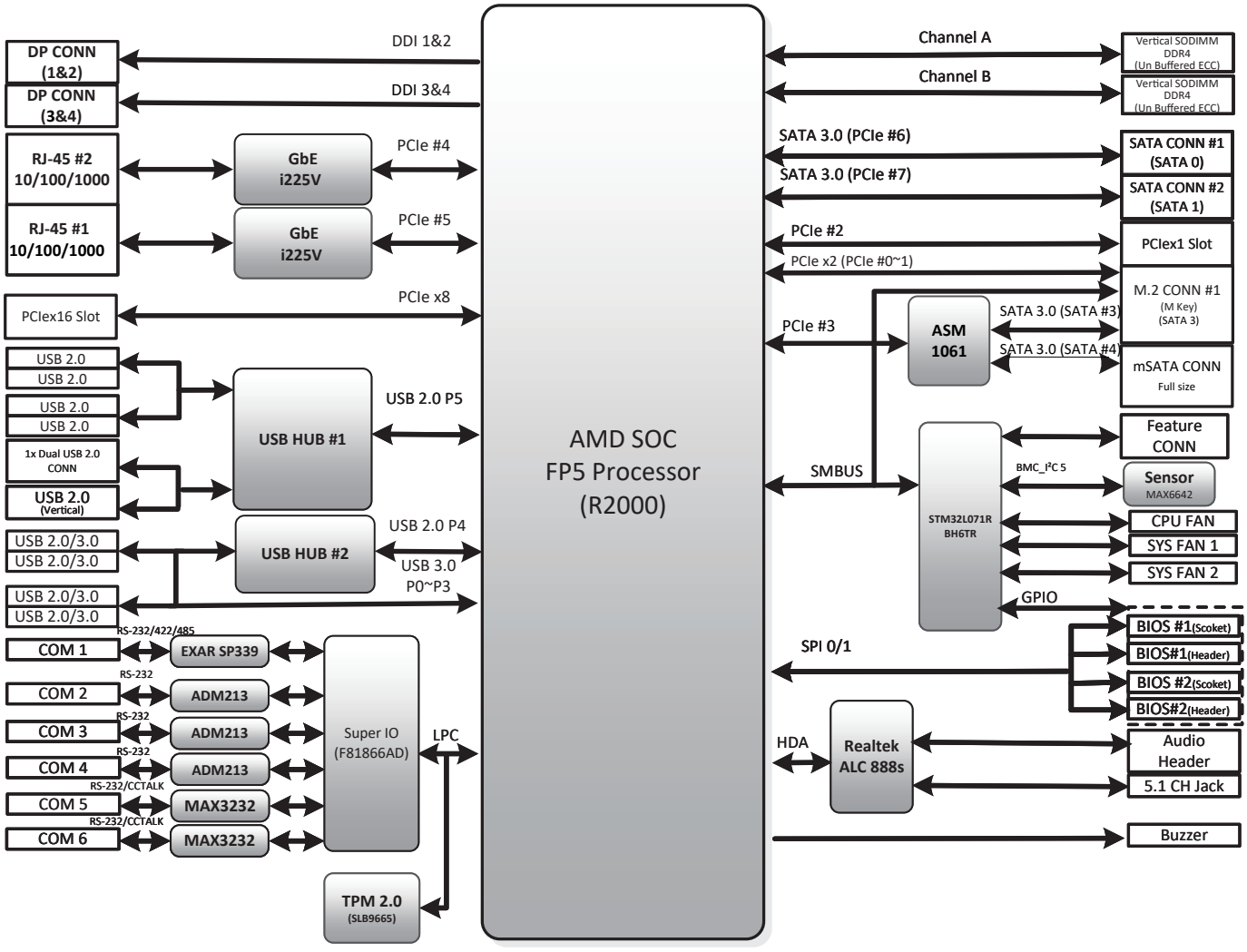
Packing List

- **34-25329-0000-A0**
  Rear I/O Shield

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Functional Diagram



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