



IMB-R1000/ IMB-V1000

Mini-ITX Motherboard



KEY FEATURES

- AMD Ryzen™ Embedded R1000 SoC processors (IMB-R1000)
- AMD Ryzen™ Embedded V1000 SoC processors (IMB-V1000)
- 2 x 260-pin SO-DIMM up to 32GB (16GB per DIMM)
 - DDR4 3200 MHz (IMB-V1000P)
 - DDR4 2400 MHz (IMB-R1000/IMB-V1000M/IMB-V1000V)
- 1 x PCIe x4 (Gen3) (IMB-R1000), 1 x PCIe x8 (Gen3) (IMB-V1000),
2 x USB 3.2 Gen2, 7 x USB 2.0, 1 x M.2 Key M, 1 x M.2 Key E,
1 x mini-PCIe, 6 x COM, 2 x SATA3
- 2 x Realtek Gigabit LAN
- Supports Triple display, 3 x DisplayPort 1.2a (IMB-R1000)
- Supports Quad display, 4 x DisplayPort 1.2a (IMB-V1000)
- TPM 2.0 onboard IC
- 12V/19~28V DC-In/ ATX PWR (4-pin)

SPECIFICATIONS

Form Factor	IMB-R1000	IMB-V1000
Dimensions	Mini-ITX (6.7-in x 6.7-in)	

Processor System

Processor System	IMB-R1000	IMB-V1000
Processor	AMD Ryzen™ Embedded R1000 SoC processors IMB-R1000M (R1606G, DC, 2.6GHz, 12-25W) IMB-R1000V (R1505G, DC, 2.4GHz, 12-25W)	AMD Ryzen™ Embedded V1000 SoC processors IMB-V1000P (V1807B, QC, 3.35GHz, 35-54W) IMB-V1000M (V1605B, QC, 2GHz, 12-25W) IMB-V1000V (V1202B, DC, 2.3GHz, 12-25W)
Chipset	SoC	
Socket	N/A	
BIOS	AMI SPI 64 Mbit	

Memory

Memory	IMB-R1000	IMB-V1000
Technology	Dual Channel DDR4 2400 MHz	Dual Channel DDR4 2400 MHz (V1605B/ V1202B) Dual Channel DDR4 3200 MHz (V1807B)
Capacity	32 GB (16 GB per DIMM)	
Socket	2 x 260-pin SO-DIMM	

Graphics

Graphics	IMB-R1000	IMB-V1000
Controller	AMD Radeon™ Vega 3 Graphics	AMD Radeon™ Vega 11 Graphics (IMB-V1000P) AMD Radeon™ Vega 8 Graphics (IMB-V1000M) AMD Radeon™ Vega 3 Graphics (IMB-V1000V)
HDMI	N/A	
DisplayPort	DisplayPort 1.2a Max resolution up to 3840x2160@60Hz	
VGA	Max resolution up to 1920x1200@60Hz	
LVDS	Dual channel 48 bit up to 1920 x 1200@60Hz	
eDP	eDP 1.3 Max resolution up to 3840x2160@60Hz	
DVI	N/A	
MultiDisplay	Triple Display	Quad Display

Expansion Slot

Expansion Slot	IMB-R1000	IMB-V1000
PCIe	1 x PCIe x4 (Gen3)	1 x PCIe x8 (Gen3)
PCI	N/A	
mini-PCIe	1 x Full/Half size with PCIe x1 and USB 2.0	
M.2	1 x M.2 (Key E, 2230) with PCIe x1 and shared USB 2.0 for Wireless	
SIM Socket	N/A	

Audio

Interface	Realtek ALC887, High Definition Audio. Line-out, Mic-in, Line-in
-----------	--

Ethernet

Controller/ Speed	2 x Realtek RTL8111G/RTL8111H-CG with 10/100/1000 Mbps
Connector	2 x RJ-45

Rear I/O	IMB-R1000	IMB-V1000
HDMI	N/A	
DisplayPort	3 x DP 1.2a	4 x DP 1.2a
VGA	N/A	
DVI	N/A	
Ethernet	2 x 1 Gigabit LAN	
USB	2 x USB 3.2 Gen2 2 x USB 2.0	
Audio	2 (Mic-in, Line-out)	
COM	2 x COM (RS-232/422/485)	
PS2	N/A	

Internal Connector

USB	5 x USB 2.0 (2 x 2.54 pitch header, 1 x USB 2.0 Type-A vertical con)	
COM	4 x COM (RS-232, COM6 shared with ccTalk)	
GPIO	8 x GPI, 8 x GPO (shared with LPT header)	
TPM	TPM 2.0 onboard IC	
LVDS	1 (Shared with DP1)	
eDP	1 (Shared with DP0)	
VGA	1 (Shared with DP3)	
SATA PWR Output	1	
Speaker Header	1	

Storage

M.2	1 x M.2 (Key M, 2242/2260/2280) with SATA for SSD	1 x M.2 (Key M, 2242/2260/2280) with PCIe x2 and SATA for SSD
mSATA	N/A	
SATA	2 x SATA3 (6.0Gb/s), Red header shared with M.2 Key M SATA signal	
eMMC	N/A	

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ...255sec

Power Requirements

Input PWR	12V or 19~28V DC-In with 4-pin plug PWR cable or DC Jack
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	0°C - 60°C
Storage Temp	-40°C - 85°C
Operating Humidity	5% - 90%
Storage Humidity	5% - 90%

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660