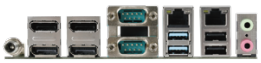
ASRock Industrial

IMB-R1000/ IMB-V1000

Mini-ITX Motherboard

IMB-R1000



IMB-V1000

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

CPU	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

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

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

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.

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