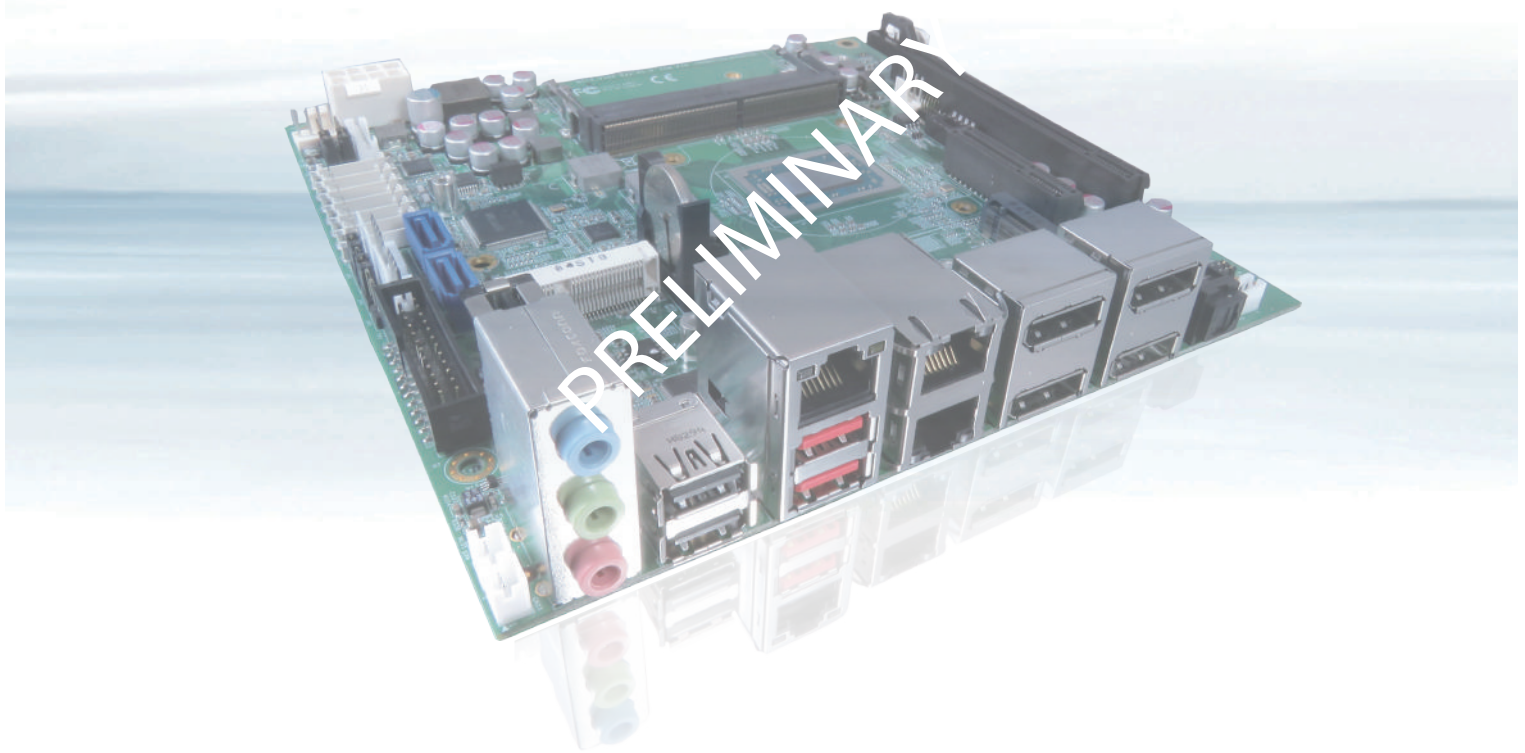


mITX-VR1000

4K QUADRUPLE DISPLAY SUPPORT



MINI-ITX INDUSTRIAL MOTHERBOARD WITH AMD® RYZEN V1000 SERIES AND R1000 SERIES PROCESSORS

- ▶ Up to 3x DP, 1x HDMI 1.4, 1x LVDS for display output
- ▶ Up to 3x GbE LAN for Ethernet
- ▶ 2x USB 3.0, 4x USB 2.0, 2x RS232/422/485, 18-bit GPIO
- ▶ 2x SATA 3.0, 1x M.2 Key B for storage
- ▶ Up to 1x mPCIe, 1x PCIe x16 for expansion

POSSIBILITIES START HERE



mITX-VR1000

MINI-ITX INDUSTRIAL MOTHERBOARD WITH AMD® RYZEN V1000 SERIES AND R1000 SERIES PROCESSORS

mITX-VR1000 is a Mini-ITX form factor motherboard equipped with AMD® Ryzen V1000 series and R1000 series processors, which are perfect match for digital casino gaming, medical display, thin clients, industrial PCs and other application supported extraordinary visual interface with efficient power consumption.

Integrating a high performance of up to 4 CPU cores and 11 GPU cores, mITX-VR1000 can power up to four independent displays in 4K resolution.

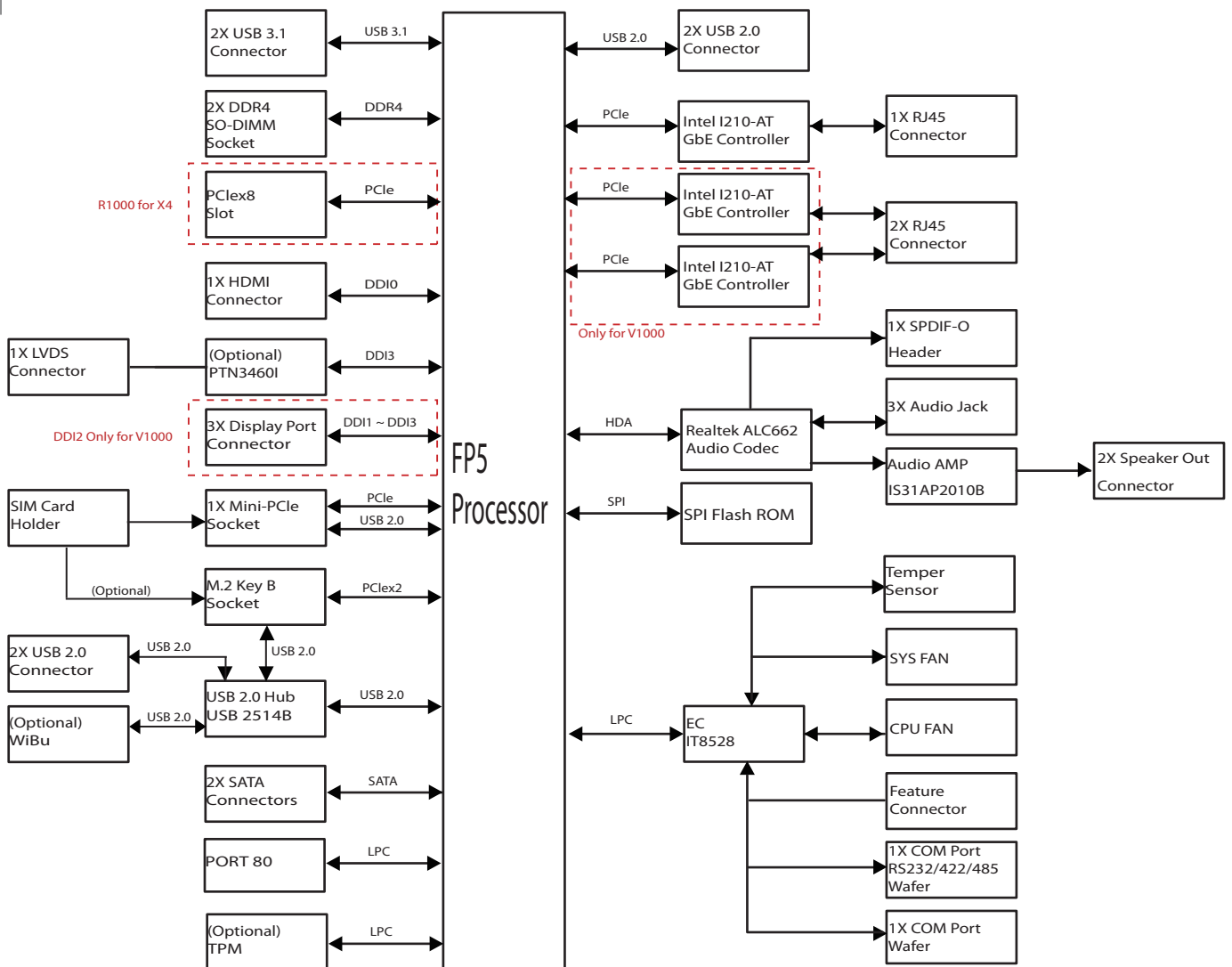
Furthermore, VR1000 series have two SATA 3.0 sockets and one M.2 Key B socket for SSD storage device connection. Up to three GbE LAN ports help to deliver sufficient traffic flow for huge data volumes.

mITX-VR1000 reserves one mPCIe and one PCIe x16 slot allowing users to expand specific functions such as wireless connection.

▶ PRODUCT HIGHLIGHTS

- ▶ AMD® Ryzen V1000 series and R1000 series Processors
- ▶ 2x DDR4 SO-DIMM
- ▶ Up to 3x DP, 1x HDMI 1.4, 1x LVDS for display output
- ▶ Up to 3x GbE LAN for Ethernet
- ▶ 2x SATA 3.0, 1x M.2 Key B for storage
- ▶ 2x USB 3.0, 4x USB 2.0, 2x COM, 18-bit GPIO
- ▶ Up to 1x PCIe x16, 1x mPCIe for expansion
- ▶ 1x Micro SIM Card Cage

▶ BLOCK DIAGRAM



TECHNICAL INFORMATION

SYSTEM	PROCESSOR	AMD Ryzen™ V1807B (Quad Core, 4M Cache, up to 3.80 GHz, FP5, 45 W up to 54W TDP) AMD Ryzen™ V1756B (Quad Core, 4M Cache, up to 3.60 GHz, FP5, 45 W up to 54W TDP) AMD Ryzen™ V1605B (Quad Core, 4M Cache, up to 3.60 GHz, FP5, 15 W up to 25W TDP) AMD Ryzen™ V1202B (Dual Core, 4M Cache, up to 3.20 GHz, FP5, 15 W up to 25W TDP)
	MEMORY	2x DDR4 3200 SO-DIMM up to 32 GByte
VIDEO	GRAPHICS	AMD Radeon™ Vega 11 (V1807B) AMD Radeon™ Vega 8 (V1756B & V1605B) AMD Radeon™ Vega 3 (V1202B)
	DISPLAY INTERFACE	3x DP (for models w/ V1000, on rear) 2x DP (for models w/ R1000, on rear) 1x HDMI 1.4 (on rear, 3840 x 2160 @30Hz) 1x LVDS (optional for models w/ V1000, shared w/ 24-bit, 2-ch)
	MULTIPLE DISPLAY	Quadruple display (for models w/ V1000) Triple display (for models w/ R1000)
AUDIO	AUDIO CODEC AUDIO INTERFACE	Realtek ALC662 2x Speaker-out (3W) 1x Line-in (on rear) 2x Line-out (1x on rear, 1x by header) 2x Mic-in (1x on rear, 1x by header) 1x S/PDIF (by header)
NETWORK CONNECTION	ETHERNET	3x GbE LAN (for models w/ V1000, RJ45 on rear, Intel® I210-AT) 1x GbE LAN (for models w/ R1000, RJ45 on rear, Intel® I210-AT)
PERIPHERAL CONNECTION	USB	2x USB 3.0 (Type A on rear) 4x USB 2.0 (2x Type A on rear, 2x by header)
	SERIAL PORT OTHER I/Os	2x RS232/422/485 (by header) 18-bit GPIO
STORAGE & EXPANSION		2x SATA 3.0 1x M.2 Key B (type 2242/ 2280, mixed w/ USB 2.0 & PCIe x2 SSD, NVMe support) 1x mPCIe (full size, mixed w/ PCIe x1, USB 2.0) 1x PCIe x16 (V1000 support PCIe x8 signal, R1000 support PCIe x4 signal) 1x Micro SIM Card Cage
POWER	INPUT VOLTAGE CONNECTOR	DC 12 V DC Jack Connector
FIRMWARE	BIOS WATCHDOG H/W MONITOR REAL TIME CLOCK TPM WiBU	AMI uEFI BIOS w/ SPI Flash Programmable WDT to generate system reset event Voltages, Temperatures SoC integrated RTC Supported (Infineon SLB9665 TPM 2.0) Optional
SYSTEM CONTROL & MONITORING	BUTTON, SWITCH & INDICATOR	1x Power Button (by header) 1x Reset Button (by header) 1x Power LED (on rear) 1x Storage LED (by header) 1x mPCIe Activity LED (by header) 1x M.2 Key B LED (by header)
COOLING	FAN	1x Wafer for CPU Smart Fan 1x Wafer for System Smart Fan
SOFTWARE	OS SUPPORT	Windows 10, Linux
MECHANICAL	DIMENSION (L x W)	Mini-ITX (170 mm x 170 mm / 6.70" x 6.70")
ENVIRONMENTAL	OPERATION TEMPERATURE	0 °C ~ 60 °C / 32 °F ~ 140 °F (Standard) -40 °C ~ 85 °C / -40 °F ~ 185 °F (Extreme)
	STORAGE TEMPERATURE	-20 °C ~ 80 °C / -4 °F ~ 176 °F (Standard) -55 °C ~ 85 °C / -67 °F ~ 185 °F (Extreme)
	HUMIDITY	0 % ~ 95 %
CERTIFICATION	EMC & SAFETY GREEN	CE, FCC Class A, UL RoHS, REACH

GLOBAL HEADQUARTERS

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