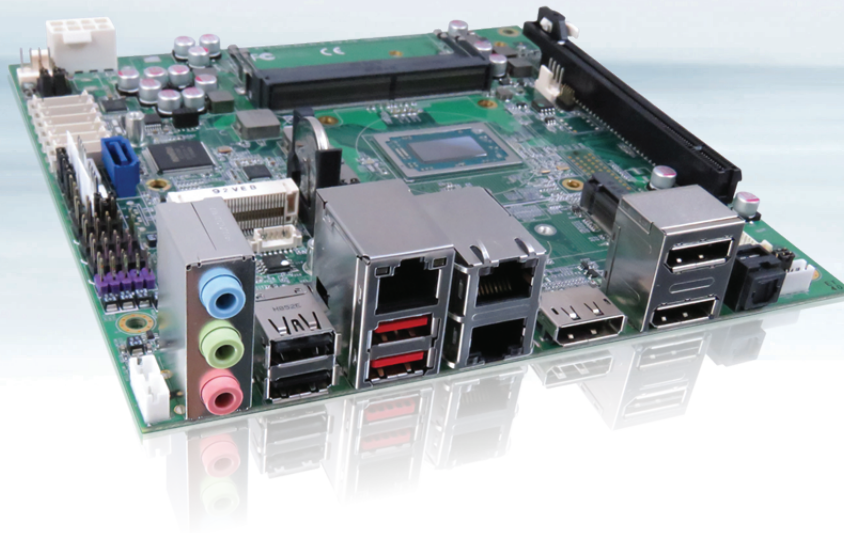


mITX-VR1000 V2.0

QUADRUPLE DISPLAY SUPPORT



MINI-ITX INDUSTRIAL MOTHERBOARD WITH AMD RYZEN™ V1000-SERIES PROCESSORS

- ▶ 1x LVDS & 1x DP++ & 2x DP / 2x DP++ & 2x DP for quadruple display support
- ▶ 3x GbE LAN for Ethernet
- ▶ 2x USB 3.1, 5x USB 2.0, 2x RS232/422/485, 4x RS232, 8-bit DIO for peripherals
- ▶ 1x SATA 3.0, 1x mPCIe, 1x M.2 Key B, 1x M.2 Key M for storage & wireless
- ▶ 1x PCIe x16 (x8 signal) for application-specific expansion

POSSIBILITIES START HERE



mITX-VR1000 V2.0

MINI-ITX INDUSTRIAL MOTHERBOARD WITH AMD RYZEN™ V1000-SERIES PROCESSORS

mITX-VR1000 V2.0 is a Mini-ITX motherboard equipped with AMD Ryzen™ V1000 Series processors, perfect for digital casino gaming, medical imaging, industrial control & automation or other similar applications.

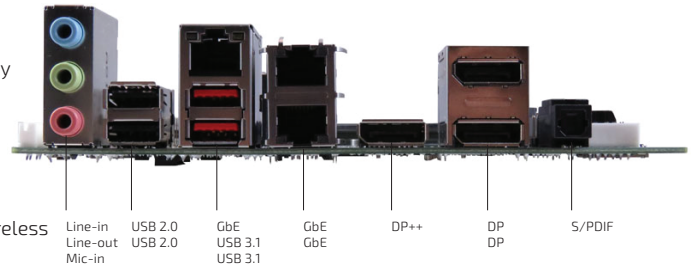
Integrating excellent performance of up to 4 CPU cores and 11 GPU cores, mITX-VR1000 V2.0 can power four independent displays.

With three GbE LAN ports mITX-VR1000 V2.0 can deliver sufficient traffic flow for huge data volumes.

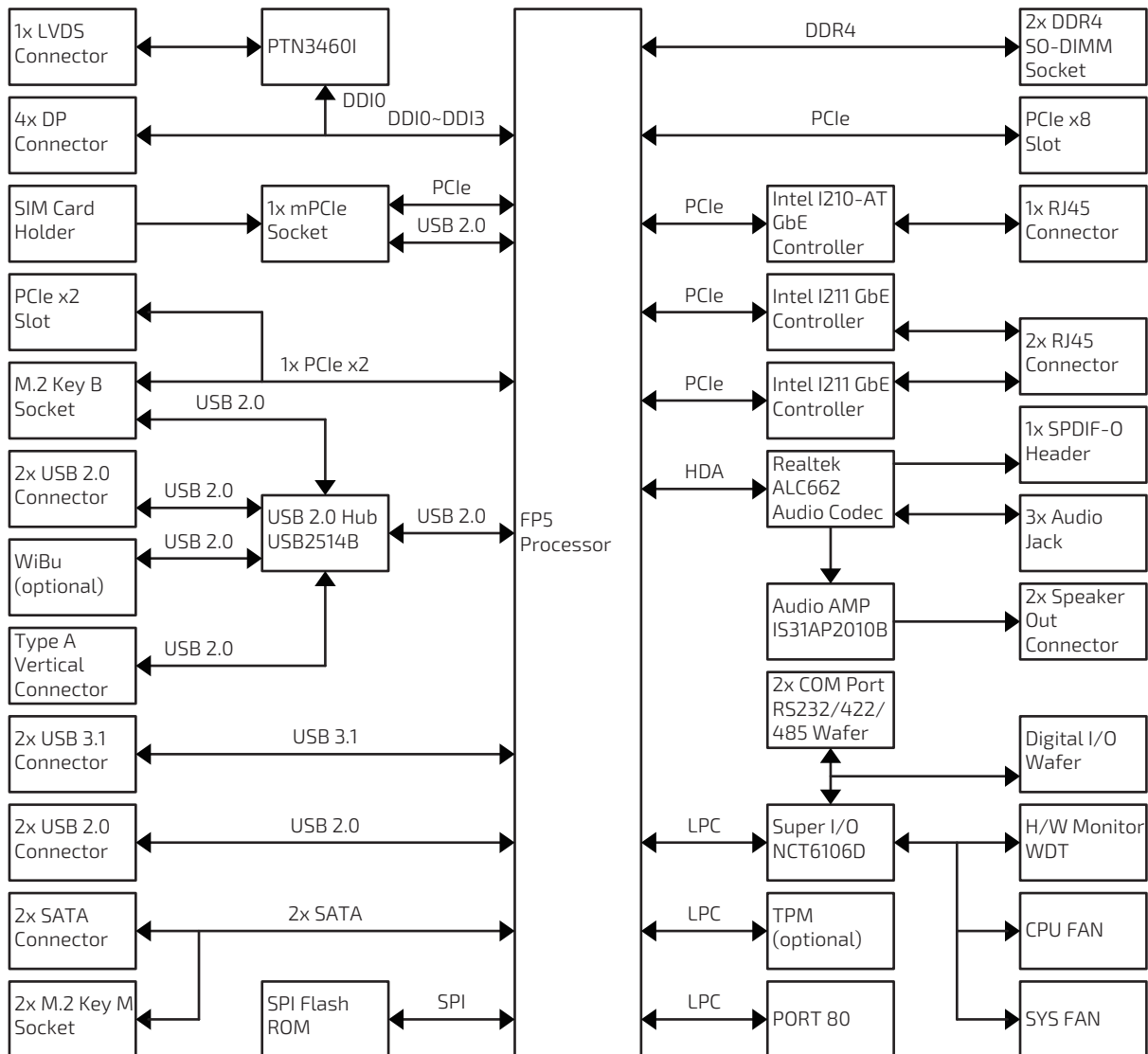
Finally, mITX-VR1000 V2.0 reserves one SATA 3.0, one mPCIe, one M.2 Key B, one M.2 Key M and one PCIe x16 (x8 signal) sockets, allowing users to flexibly expand storage media, wireless connection and application-specific functions.

▶ PRODUCT HIGHLIGHTS

- ▶ AMD Ryzen™ V1000-Series Processors
- ▶ 2x DDR4 SO-DIMM
- ▶ 1x LVDS & 1x DP++ & 2x DP / 2x DP++ & 2x DP for quadruple display
- ▶ 3x GbE LAN for Ethernet
- ▶ 2x USB 3.1, 5x USB 2.0 for USB device connection
- ▶ 2x RS232/422/485, 4x RS232 for serial device connection
- ▶ 8-bit DIO for signal / device control
- ▶ 1x SATA 3.0, 1x mPCIe, 1x M.2 Key B, 1x M.2 Key M for storage & wireless
- ▶ 1x PCIe x16 (x8 signal) for application-specific expansion



▶ BLOCK DIAGRAM



► TECHNICAL INFORMATION

SYSTEM	PROCESSOR	AMD Ryzen™ V1807B (Quad Core, 4M Cache, up to 3.80 GHz, FP5, 45 W TDP)
	MEMORY	AMD Ryzen™ V1202B (Dual Core, 4M Cache, up to 3.20 GHz, FP5, 15 W TDP) 2x DDR4 3200 SO-DIMM up to 32 GByte (V1807B) 2x DDR4 2400 SO-DIMM up to 32 GByte (V1202B)
VIDEO	GRAPHICS	AMD Radeon™ Vega 11 (V1807B) AMD Radeon™ Vega 3 (V1202B)
	DISPLAY INTERFACE	1x LVDS (24-bit, 2-ch, 1920 x 1200 @ 60 Hz) - 1x DP++ (on rear, 4096 x 2160 @ 60 Hz) 2x DP++ (on rear, 4096 x 2160 @ 60 Hz) 2x DP (on rear, 4096 x 2160 @ 60 Hz) 2x DP (on rear, 4096 x 2160 @ 60 Hz)
	MULTIPLE DISPLAY	Quadruple display
AUDIO	AUDIO CODEC	Realtek ALC662
	AUDIO INTERFACE	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) 2x S/PDIF (1x on rear, 1x by header)
NETWORK CONNECTION	ETHERNET	3x GbE LAN (RJ45 on rear, 2x Intel® I211-AT, 1x Intel® I210-AT)
PERIPHERAL CONNECTION	USB	2x USB 3.1 (Type A on rear)
	SERIAL PORT	5x USB 2.0 (2x Type A on rear, 3x by header)
	OTHER I/Os	2x RS232/422/485 (by wafer) 4x RS232 (by wafer) 8-bit DIO (by wafer)
STORAGE & EXPANSION	SATA	1x SATA 3.0
	mPCIe	1x mPCIe (full size, mixed w/ PCIe x1, USB 2.0)
	M.2	1x M.2 Key B (type 2242/ 2280, mixed w/ USB 2.0/PCIe x2, NVMe support) 1x M.2 Key M (type 2280)
	PCIe	1x PCIe x16 (x8 signal)
	SIM CARD HOLDER	2x SIM Cage (1x Micro type linked to M.2 Key B, 1x by wafer linked to mPCIe)
POWER	INPUT VOLTAGE	DC 12 V
	CONNECTOR	2x4-pin ATX Connector
FIRMWARE	BIOS	AMI uEFI BIOS w/ SPI Flash
	WATCHDOG	Programmable WDT to generate system reset event
	H/W MONITOR	Voltages, Temperatures
	REAL TIME CLOCK	SoC integrated RTC
	SECURITY	TPM 2.0 (Infineon SLB9665)
	WiBU	Optional
SYSTEM CONTROL & MONITORING	FRONT PANEL HEADER	1x Header for Reset button, HDD LED & External Speaker 1x Header for Power button, Power LED & SM bus 1x Header for mPCIe activity LED 1x Header for M.2 Key B activity LED
COOLING	FAN	1x Wafer for CPU Smart Fan 1x Wafer for System Smart Fan
SOFTWARE	OS SUPPORT	Windows 10
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
	STORAGE TEMPERATURE	-20 °C ~ 80 °C / -4 °F ~ 176 °F
	HUMIDITY	0 % ~ 95 %
CERTIFICATION	EMC & SAFETY	CE Class B, FCC Class B
	GREEN	RoHS, REACH

▶ ORDERING INFORMATION

ARTICLE	DESCRIPTION
miTX-VR1000 V2.0-V1807	AMD Ryzen™ V1807B, 1x LVDS, 1x DP++, 2x DP
miTX-VR1000 V2.0-V1202	AMD Ryzen™ V1202B, 1x LVDS, 1x DP++, 2x DP

ACCESSORIES		
ARTICLE	PART NO.	DESCRIPTION
I/O SHIELD (3X DP) #	0F000000001200L	Sus 304 Stainless Steel, T = 0.2 mm, for model w/ 3x DP
I/O SHIELD (4X DP) #	0F000000001500L	Sus 304 Stainless Steel, T = 0.2 mm, for model w/ 4x DP
USB 2.0 CABLE *	0C504000000110L	2.54 mm 2x5P to 2x USB connectors, L = 340 mm
COM PORT CABLE *	0C5020000005130L	D-SUB 9P (male) to 1x10P 1.25 pitch, L = 350 mm
DIO CABLE *	0C5020000003360L	1x10P 1.25 pitch, L = 200 mm
SATA POWER CABLE *	0C5020000005260L	2.54 pitch 1x4P to 1.27 pitch 1x15P, L = 460 mm
SATA CABLE *	0C5020000004240L	With lock 1.27 pitch 1x7P, L = 460 mm
AUDIO CABLE *	0C5020000005530L	A2546H-2x6P (DP2.54) to PJ-2509CTPC-5-L x2 (Audio Jack w/ detect pin), L = 400 mm
DC JACK CABLE *	0C5029003000130L	ATX 2x2P 4.2 pitch to DC Jack, L = 300 mm
25 W COOLER *	0H05XX000002310L	Cooler with Thermal Pad, for model w/ up to 25 W TDP processor
54 W COOLER *	0H05XX000002290L	Cooler with Thermal Pad, for model w/ up to 54 W TDP processor

(* : Optional)

(# : I/O Shield is supplied depending on order configuration)

▶ GLOBAL HEADQUARTERS

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