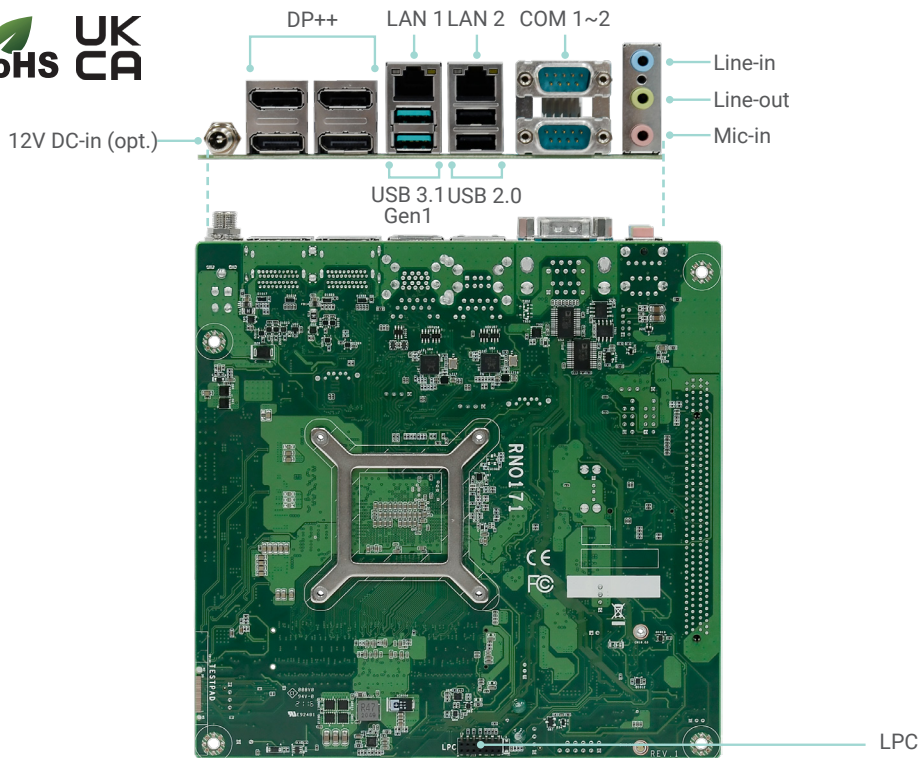
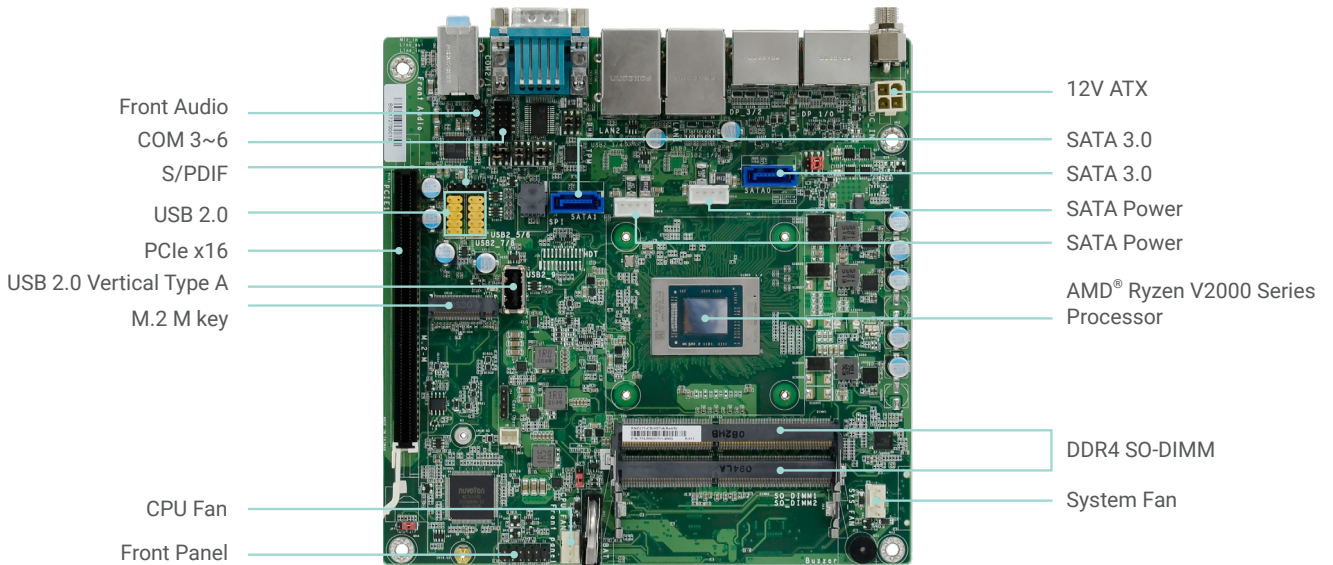


RN0171

AMD® Ryzen™ V2000 Series
mini-ITX



Bottom View



Top View

KEY FEATURES



DDR4

2 DDR4 SODIMM up to 64GB



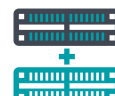
4K High Resolution

Supports 4K/ 2K resolution



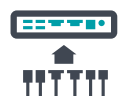
4 Independent Displays

4 x DP++



Expansion

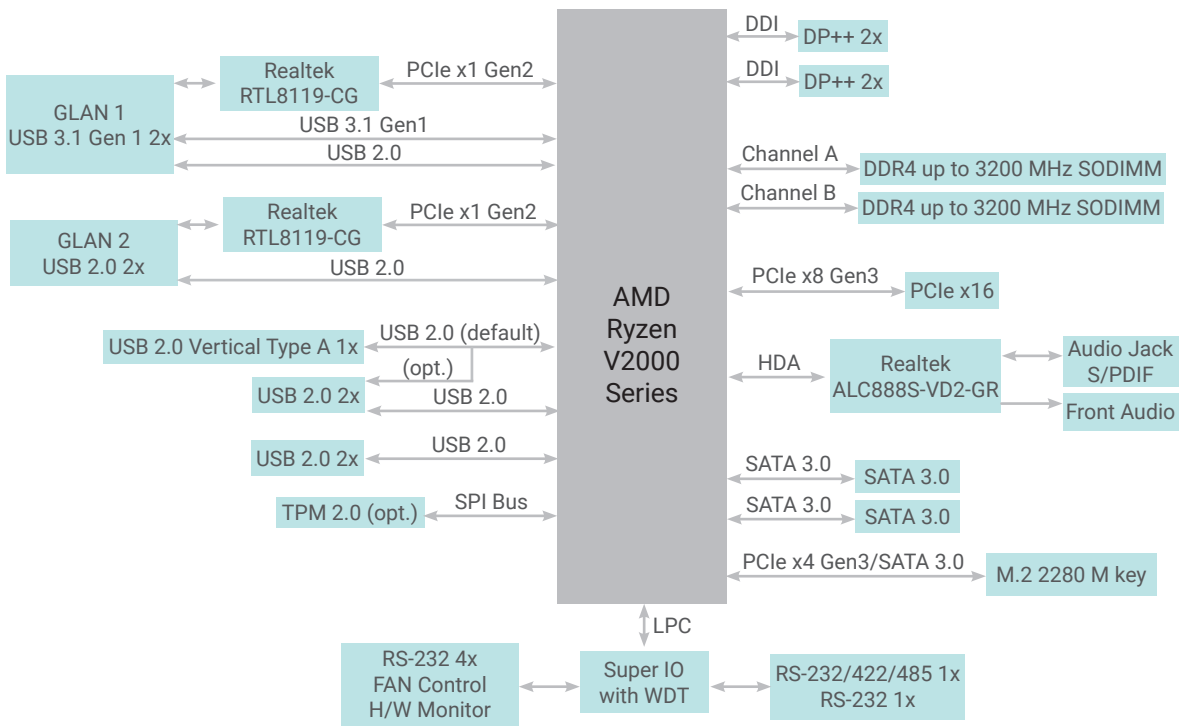
1 M.2 M Key,
1 PCIe x16 (x8 signal)



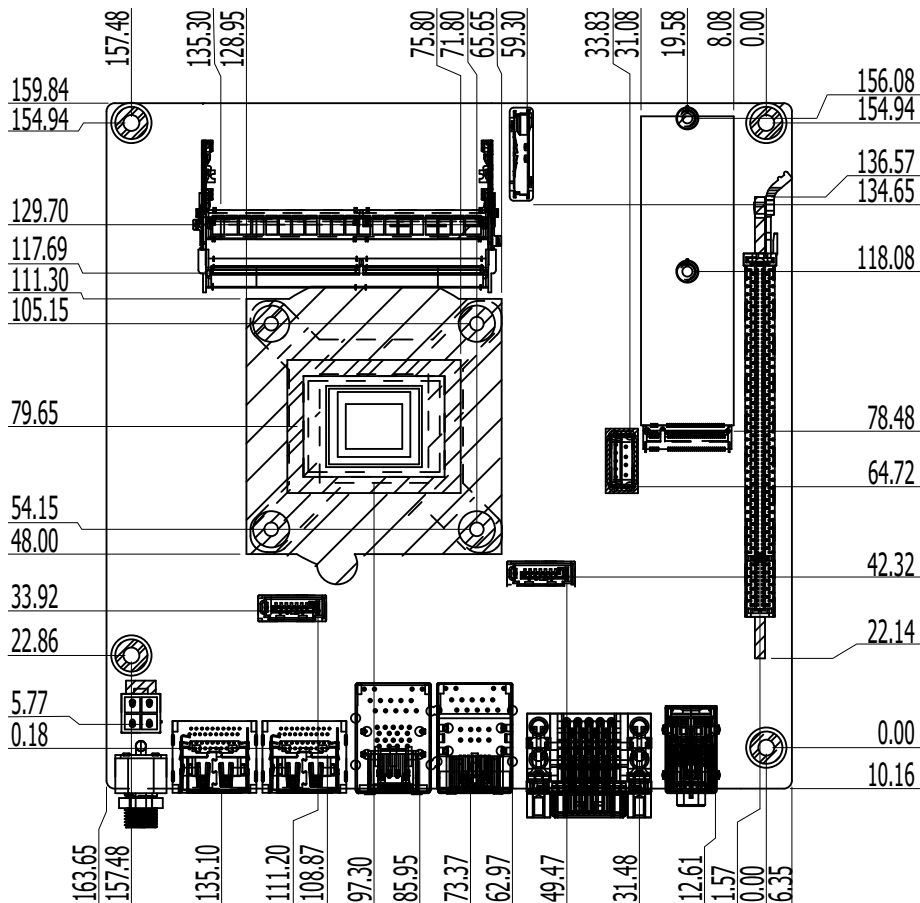
Rich I/O

2 GbE, 6 COM,
2 USB 3.1 Gen1,
7 USB 2.0, 2 SATA 3.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	AMD® Ryzen™ V2000 Series Processors, BGA V2748 AMD® Ryzen™ V2748, 8C/16T, 4MB Cache, 7 CU, 2.9GHz (4.25GHz),45W AMD® Ryzen™ V2546, 6C/12T, 3MB Cache, 6 CU, 3.0GHz (3.95GHz),45W AMD® Ryzen™ V2718, 8C/16T, 4MB Cache, 7 CU, 1.7GHz (4.15GHz),15W AMD® Ryzen™ V2516, 6C/12T, 3MB Cache, 6 CU, 2.1GHz (3.95GHz),15W
	Memory	Two 260-pin SODIMM up to 64GB Dual channel DDR4 up to 3200MHz (ECC/ non ECC support)
	BIOS	AMI BIOS
GRAPHICS	Controller	AMD® Radeon™ VEGA7 Graphics
	Feature	OpenGL 4.6, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9
	Display	4 x DP++ DP++: resolution up to 4096x2160 @ 60Hz
EXPANSION	Interface	1 x PCIe x16 (x8 Gen3) (Max. 75W) 1 x M.2 2280 M Key (SATA 3.0/ PCIe x4) (support 2242 by BOM opt.)
AUDIO	Audio Codec	Realtek ALC888S-VD2-GR
ETHERNET	Controller	2 x Realtek RTL8119-CG (10/100/1000Mbps)
REAR I/O	Ethernet	2 x GbE (RJ-45)
	USB	2 x USB 3.1 Gen1 2 x USB 2.0
	Display	4 x DP++
	Audio	1 x Mic-in 1 x Line-in 1 x Line-out
	Serial	1 x RS-232/422/485 (DB-9) 1 x RS-232 (DB-9)
INTERNAL I/O	Serial	4 x RS-232 (2.0mm pitch) (TX/RX signal only)
	USB	3 x USB 2.0 (2.54mm pitch) + 1 x USB 2.0 Vertical Type A (default) or 4 x USB 2.0 (2.54mm pitch) (opt.)
	Audio	1 x S/PDIF 1 x Audio (Mic-in/Line-out)
	SATA	2 x SATA 3.0 (up to 6GB/s) (with 7-pin VCC support) 2 x SATA Power
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	TPM2.0 (opt.)
POWER	Type	Single 12V +/-5% DC
	Connector	Straight Type Connector (4-pin) DC-in Jack (available upon request) Right Angle Connector (4-pin) (available upon request)
	Consumption	Idle: V2748: 12V @ 0.23A (2.76W) Max: V2748: 12V @ 2.6A (31.20W)
	RTC Battery	CR2032 Coin Cell
OS SUPPORT	Microsoft	Windows 10
	Linux	Linux
ENVIRONMENT	Temperature	Operating: -5 to 65°C Storage: -40 to 85°C
	Humidity	Operating: 10 to 90% RH Storage: 10 to 90% RH
	MTBF	RN0171-CB-V2748: 360,622 hrs @ 25°C; 147,282 hrs @ 45°C; 65,054 hrs @ 60°C; Calculation model: Telcordia Issue 4 Environment: GB, GC – Ground Benign, Controlled
MECHANICAL	Dimensions	Mini-ITX Form Factor 170mm (6.7") x 170mm (6.7")
	Height	PCB: 1.6mm Top Side: 37.7mm, Bottom Side: 4.3mm
STANDARDS AND CERTIFICATIONS	Certification	CE, FCC, RoHS, UKCA

ORDERING INFORMATION

Model Name	P/N	Processor	Memory	GbE	DP++	RS-232/422/485	RS-232	USB 3.1 Gen1	USB 2.0	Power	Thermal	Temp.
RN0171-CB-V2748	770-RN01711-000G	V2748	2 SODIMM	2	4	1	5	2	7	12V DC	Active	-5 to 65°C
RN0171-CB-V2546	770-RN01711-100G	V2546	2 SODIMM	2	4	1	5	2	7	12V DC	Active	-5 to 65°C
RN0171-CB-V2718	770-RN01711-200G	V2718	2 SODIMM	2	4	1	5	2	7	12V DC	Active	-5 to 65°C
RN0171-CB-V2516	770-RN01711-300G	V2516	2 SODIMM	2	4	1	5	2	7	12V DC	Active	-5 to 65°C

PACKING LIST

1 RN0171 motherboard	
1 I/O shield	A49-GH1710-000G
1 Cooler (For 25W, height:35mm)	A71-108114-010G
(For 54W, height:47mm)	A71-108113-000G

OPTIONAL ITEMS

SATA signal and power cable	A81-002013-000G
USB port cable (Length: 200mm)	332-253010-026G
COM port cable (Length: 300m)	A81-015041-018G