



AMD® Ryzen™ V1000/R1000 Series Processor Gaming Embedded System

GM341-GHF

V1000



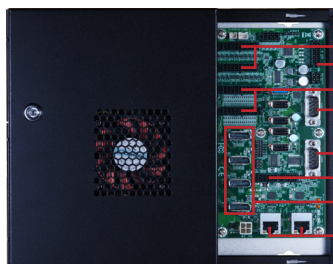
► Features

- AMD® Ryzen™ Embedded V1000/R1000 processors
- High performance Radeon™ VEGA series graphics
- 4 DP++ 4K monitor support (V1000)
- Comprehensive gaming features
- 5 COM, 6 USB, 2 LAN and M.2 support
- 12V DC single input



► Panel

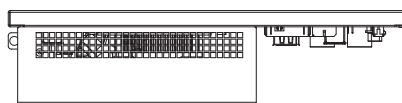
Top View



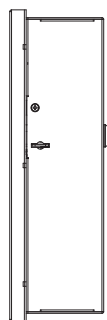
- 32 x output
- 5.1ch audio output
- 32 x input
- COM 1
- COM 2
- COM 3/4/5
- 4 x DP++
- 2 x LAN

► Dimensions

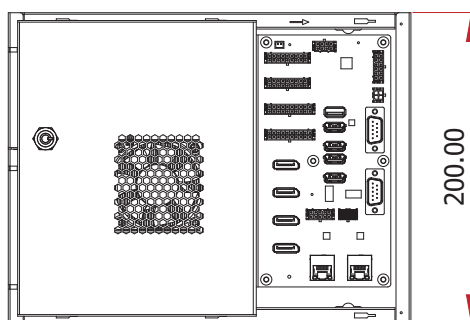
Front View



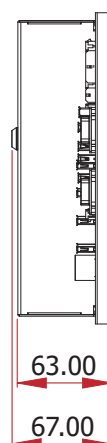
Left View



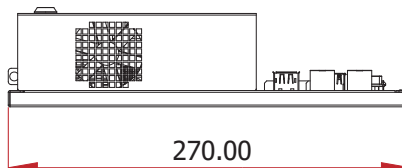
Top View



Right View



Rear View



Specifications

SYSTEM	Processor	AMD® Ryzen™ Embedded V1807, Quad Core, 2MB Cache, 11 CU, 3.35GHz (3.8GHz), 35-54W AMD® Ryzen™ Embedded V1756, Quad Core, 2MB Cache, 8 CU, 3.25GHz (3.6GHz), 35-54W AMD® Ryzen™ Embedded V1605, Quad Core, 2MB Cache, 8 CU, 2.0GHz (3.6GHz), 12-25W AMD® Ryzen™ Embedded V1202, Dual Core, 1MB Cache, 3 CU, 2.3GHz (3.2GHz), 12-25W AMD® Ryzen™ Embedded R1000 series	
	Memory	Two 260-pin SODIMM up to 32GB	Dual Channel DDR4 3200MHz
	BIOS	AMI BIOS (supports hash and public key validation)	
	Controller	AMD® Radeon™ Vega Graphics	
GRAPHICS	Feature	OpenGL 4.5, 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
	Internal	2 x SATADOM with 7-pin VCC Support	
STORAGE EXPANSION	Interface	1 x M.2 M Key (2280, PCIe x2, only support for V1000) Note: No SATA support	
	Audio	5.1 Channel Audio Output S/PDIF Digital Output Stereo 10W+10W Class D Audio AMP Output	
ETHERNET	Controller	2 x Realtek Ethernet LAN Controller (10/100/1000Mbps)	
LED	Indicators	1 x Power LED 1 x HDD LED	
	Ethernet	2 x GbE (RJ-45)	
I/O	Serial	1 x RS-232 1 x RS-232/422/485 1 x RS-232 (Tx, Rx)/ccTalk 2 x RS-232 (Tx, Rx)/SAS/BACTA	
	USB	2 x USB 3.0 4 x USB 2.0	
	Display	4 x DP++ (V1000) 3 x DP++ (R1000)	
	Buttons	1 x Power Button 1 x Reset Button	
	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
	TPM	TPM 1.2/2.0	
WATCHDOG TIMER SECURITY GAMING	Intrusion Detection	8 x Intrusion Detections Operates With and Without AC Power Logs Date/Time of Last 64 Events 5 Years Data Retention during AC off	
	NVRAM	Supports up to 16Mbyte Coin Battery Backup to Retain Data for 5 Years during AC off Supports Battery Voltage Monitoring & Warning	
	DI/DO	32-bit Digital Input 32-bit OC output (29-bit x 500mA, support 8 meter with disconnect detection; 3-bit x 3A)	
POWER	Type	12V	
	Connector	4-pin Vertical Connector	
OS SUPPORT		Windows 10 (64-bit)	Linux
MECHANISM	Mounting	Wall Mount	
	Dimensions (W x H x D)	270mm x 63mm x 200mm	
	Weight	TBD	
ENVIRONMENT	Operating Temperature	0 to 45°C	
	Storage Temperature	-20 to 85°C	
	Relative Humidity	5 to 90% RH (non-condensing)	
STANDARDS AND CERTIFICATIONS	Shock	Operation: IEC 60068-2-27 Test Ea: Shock test Half-sine, 3G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times) Non-Operation: IEC 60068-2-27 Test Ea: Shock test Half-sine, 5G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times)	
	Vibration	Operation: IEC 60068-2-64 Test Fh: Vibration Board-Band Random Test Random, 1Grms @ 5~500 Hz, 30min. Non-Operation: IEC 60068-2-6 Test Fc: Vibration Sinusoidal Test Sweep sine, 3Grms @ 10~500Hz, 30min.	

► Ordering Information

Model Name	Part Number	Description
GM341-GHF-1807	750-GM3410-000G	AMD Ryzen Embedded V1807B, 4 DP++, 5 COM, 6 USB, 8MB NVRAM, 12V DC, half cover, CPU FAN
GM341-GHF-1756	750-GM3410-100G	AMD Ryzen Embedded V1756B, 4 DP++, 5 COM, 6 USB, 4MB NVRAM, 12V DC, half cover, CPU FAN
GM341-GHF-1605	750-GM3410-200G	AMD Ryzen Embedded V1605B, 4 DP++, 5 COM, 6 USB, 4MB NVRAM, 12V DC, half cover, CPU FAN
GM341-GHF-1202	750-GM3410-300G	AMD Ryzen Embedded V1202B, 4 DP++, 5 COM, 6 USB, 4MB NVRAM, 12V DC, half cover, CPU FAN

► Optional Items

Optional Items	Part Number	Description
Power Adapter and Cable	671-115001-000G	150W adapter; Input:100~240V; Output:12V/12.5A
	A81-004110-009G	Power Cable, DC 5.5*2.5 to 2*2P/4.2mm, L=200mm
SATADOM	638-706410-100G	64GB, MLC, Pin7 VCC
	638-703212-110G	32GB, MLC, Pin7 VCC
M.2	638-706411-100G	64GB M.2 P80 3ME2
	638-703213-100G	32GB M.2 P80 3ME2
Memory	138-540002-101G	4GB DDR4 2400 SO-DIMM
	138-580004-101G	8GB DDR4 2400 SO-DIMM
	138-5G0163-100G	16GB DDR4 2400 SO-DIMM
Win 10 License	921-151150-000G	Win10 IoT Ent LTSB 2016 MultiLang OEI Value EPKEA
	921-151160-000G	Win10 IoT Ent LTSB 2016 MultiLang OEI Entry EPKEA
Gaming Testing Kit	770-GM9001-080G	GM900 Testing Board (774-GM9001-080G)
		6 x Intrusion detection; 2x4p cable (A81-009231-016G)
		1 x Intrusion detection; 1x2p cable (A81-009232-016G)
		16 x DI; 2x10p cable (A81-009233-016G)
		16 x DI; 2x10p cable, (A81-009234-016G)
		16 x DO; 2x9p cable (A81-009235-016G)
		16 x DO; 2x9p cable (A81-009236-016G)
		USB type B to type A cable (A81-001073-016G)

► Packing List

- 1 GM341-GHF system unit

