

HPS

1000

2.5GigE 5G

AMD Ryzen™ PRO 5000 Series Processor (Cezanne) Embedded System



^ Factory Automation



- Advanced AMD Ryzen™ PRO 5000 Series processors deliver modern performance, security features, and seamless management for demanding workloads.
- 2 DDR4 3200MHz Memory supports up to 64GB, optional with ECC
- 1 Independent 2.5G LAN, 3 Independent GigE LAN with 2 IEEE 802.3at PoE+
- Supports TPM 2.0, TSN, multiple 5G/WiFi/4G/LTE/GPRS/UMTS
- DC 9V to 50V Power Input, Software Ignition Control
- Optional VHub AIoT Solution Service supports OpenVINO based AI accelerator and advanced Edge AI applications
- Optional supports external M.2 SSD Tray, SUMIT B

∨ In-vehicle Computing



^ Autonomous Robot

AMD RYZEN PRO



VHub

Vecow

Specifications

System

Processor	AMD Ryzen™ 7 Pro 5000 Series Processors
Chipset	AMD X570
BIOS	AMI
SIO	Fintek F81966
Memory	2 DDR4 3200MHz SO-DIMM, up to 64GB (ECC/Non-ECC)
OS	Windows 10, Linux

I/O Interface

Serial	4 COM RS-232/422/485
USB	- 4 USB 3.1 - 2 USB 3.2 Gen2
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
LED	Power, HDD, PoE, Wireless
SIM Card	1 External SIM Card Sockets
RTC Battery	Front access RTC Battery

Expansion

M.2	- 1 M.2 Key B Socket (2280/3042/3052) - 1 M.2 Key E Socket (2230)
SUMIT	1 SUMIT B Slot (Optional)

Graphics

Graphics Processor	AMD Radeon™ Graphics
Interface	3 DisplayPort : Up to 1920 x 1080@60Hz

Storage

SATA	2 SATA III (6Gbps) support software RAID 0, 1
M.2	- 1 M.2 Key M Socket (2280, PCIe x4) - 1 M.2 Key B Socket (2280, PCIe x2, share with expansion)
Storage Device	HPS-1000-4G : 2 2.5" SSD/HDD Bracket (Internal) HPS-1000-4R : 2 Front-access 2.5"SSD/HDD Tray HPS-1000-4S : 1 Front-access 2.5"SSD/HDD Tray, 2 Front-access M.2 Key M SSD Tray 1 CFast Socket, Push-in/Push-out Ejector

Audio

Audio Codec	Realtek® ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

PoE

LAN 1	GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210
LAN 2	GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210

Ethernet

LAN 3	Intel® I210 GigE LAN
LAN 4	Intel® I225-IT 2.5 GigE LAN

Power

Power Input	DC 9V to 50V Power Input
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16-mode Software Ignition Power Control
Remote Switch	3-pin Terminal Block

Other

TPM	Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Mgmt.	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	260.0mm x 188.0mm x 87.8mm (10.24" x 7.40" x 3.46")
Weight	3.8 kg (8.38 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount (Optional) - 2U Rackmount (Optional)

Environment

Operating Temp.	35W TDP CPU : -40°C to 60°C (-40°F to 140°F) 65W TDP CPU : -40°C to 50°C (-40°F to 122°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @60°C
Shock	- IEC 60068-2-27 - SSD : 50G @wallmount, Half-sine, 11ms
Vibration	- IEC 60068-2-64 - SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	CE, FCC, EN50155, EN50121-3-2

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Order Information

Model	Ethernet			SSD Tray		USB	Isolated DIO
	2.5G LAN	1G LAN	1G PoE*	M.2	2.5"		
HPS-1000-4G	-	-	-	-	-	-	-
HPS-1000-4R	1	3	2	-	2	6	16
HPS-1000-4S	-	-	-	2	1	-	-

CPU List

Series	CPU	Cores	GHz	TDP (W)	CPU	Cores	GHz	TDP (W)
AMD	5750G	8	4.6	65	5750GE	8	4.6	35
Ryzen® Pro	5650G	6	4.4	65	5650GE	6	4.4	35

Optional Software

VHub AI Developer	AI Developer Kit
VHub ROS	AMR Developer Kit
VHub EtherCAT	I/O Control Platform

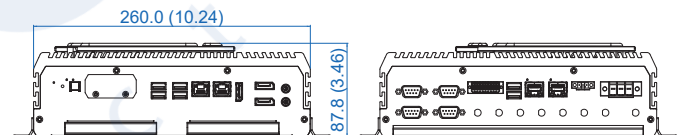
Accessories

DDR4 32G	Certified DDR4 32GB 3200MHz RAM
DDR4 16G	Certified DDR4 16GB 3200MHz RAM
DDR4 8G	Certified DDR4 8GB 3200MHz RAM
DDR4 4G	Certified DDR4 4GB 3200MHz RAM
PWA-160WB-WT	160W, 24V, 85V AC to 264V AC Power Adaptor with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-180WB	180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block, 0°C to +40°C
PWA-280WB-WT	280W, 24V, 85V AC to 264V AC Power Adaptor with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail and VESA Mounting Kit
Rack Mount	2U Rackmount Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
M.2 Storage Module	M.2 Key M Storage Module
5G Module	5G Module with Antenna
4G Module	4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

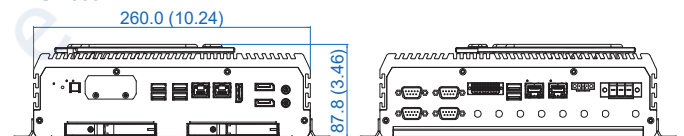
Dimensions & Drawing

Unit : mm (inch)

HPS-1000-4G



HPS-1000-4R



HPS-1000-4S

