SAPPHIRE

Embedded Solutions

SAPPHIRE FS-FP5V
Embedded 5x5 Platform

AMD Ryzen™ Embedded V1000 APU Quad 4K displays

The new SAPPHIRE FS-FP5V 5"x 5" small form factor embedded motherboard is based on the latest AMD Ryzen™ Embedded V-Series Family APUs which features the industry leading Vega GPU graphics combined with the high-performance "Zen" CPU Core. Four 4K displays can be supported in addition to dual-channel DDR4-3200 memory, dual Ethernet controllers, and M.2 for WiFi and SSD expansion. The SAPPHIRE FS-FP5V is an ideal solution for high resolution visual embedded applications like electronic gaming machines, medical imaging, interactive digital signage, thin clients, POS terminals and more.

AMD Ryzen™ Embedded processors

◆ "Zen" Architecture with 14nm FinFET
◆ **Up to four CPU cores / eight threads**
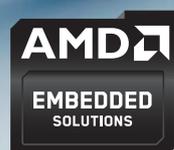◆ Vega GPU up to 11 Compute Units
◆ Dual-channel DDR4 Up to 3200 MT/s

I/O Support

◆ Up to four DisplayPort 1.4 Displays
◆ Dual Gigabit Ethernet ports
◆ One COM port (RS232/422/485)
◆ ALC262 HD 2CH
◆ One USB 3.1 Type-C port
◆ Three USB 2.0 ports
◆ 12-19V DC power input
◆ TPM 2.0 support

Expansion Slots

◆ M.2 2280 M Key slot (PCIe x 4 or SATA III)
◆ M.2 2230 E Key slot (PCIe x 1)

Model		FS-FP5V
CPU		AMD Ryzen™ Embedded V1000 series APU
System Memory		DDR4 SO-DIMM, supports ECC
		2x DDR4-Up to 2400(Depends on APU), Max. 32GB
External I/O Edge Connectors	Displays	4 x DP++
	Ethernet	2 x 1GbE RJ-45
	COM	1 x RS232/422/485
	Audio	1 x Line-Out, 1 x Mic-In
		Built-in HD audio w/ALC262 codec for 2 CH channel
	USB	1 x USB3.1 Type-C, 3 x USB2.0
Internal I/O Headers	COM	1 x RS232/422/485 (Jumperless)
	GPIO	5 x 2 pins
	Front Panel	5 x 2 pins
	SMBus	4 x 1 pins
Security	TPM	Infineon SLB9670 TPM2.0 on board
	Chassis	Intrusion Alert
Power		DC 12-19V, 90W, 1 x DC Power Jack
		2x2 power header in parallel (with protection diode)
Expansion Slots		1x M.2 (Key M, 2280) with PCIe x4 and SATA for SSD
		1x M.2 (Key E, 2230) with PCIe x1 and USB2.0 for Wireless
		1 x SATA3.0

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