

SAPPHIRE IPC-FP5R Embedded 10GbE Mini-ITX Platform

AMD Ryzen™ Embedded R1000 APU Three 4K displays

The new SAPHIRE IPC-FP5R Mini-ITX embedded motherboard is based on the latest AMD Ryzen™ Embedded R-Series Family APUs which features the industry leading Vega GPU graphics combined with the dual-core high-performance “Zen” CPU. Three independent 4K DP++ displays are supported in addition to dual-channel DDR4-2400 SODIMM memory, dual 1 or 10 Gigabit Ethernet controllers, and M.2 expansion for SSD modules. The SAPHIRE IPC-FP5R is an ideal solution for applications requiring a high speed communications front end like a min-server or high resolution display products like electronic gaming machines, medical imaging, interactive digital signage, thin clients, or POS terminals.



AMD Ryzen™ Embedded Processors

- ◆ “Zen” Architecture with 14nm FinFET
- ◆ Dual CPU cores / four threads
- ◆ Vega GPU up to 3 Compute Units
- ◆ Dual-channel DDR4 up to 2400 MT/s with ECC

Sapphire IPC-FP5R Platform Features

- ◆ Up to three DisplayPort 1.4 Displays
- ◆ Dual 10 Gigabit Ethernet ports (IPC-FP5R-10GE)
- ◆ Dual 1 Gigabit Ethernet ports (IPC-FP5R-1GE)
- ◆ Two COM ports (RS232/422/485)
- ◆ ALC662 HD 5.1 Channel Audio
- ◆ Four USB2.0 Headers
- ◆ Two USB3.1 ports
- ◆ Two USB2.0 ports
- ◆ 12V DC power input
- ◆ TPM 2.0 support
- ◆ Active APU cooler included

Expansion Slots

- ◆ M.2 2242/2260/2280 M Key slot (PCIe x 2 or SATA III)
- ◆ PCIe x 4 slot



Model		IPC-FP5R-10GE	IPC-FP5R-1GE
CPU		AMD Ryzen™ Embedded R1000 series APU	
System Memory		DDR4 SO-DIMM, supports ECC 2x DDR4-Up to 2400, Max. 32GB	
External I/O Edge Connectors	Displays	3 x DP++, 1 x eDP (Shared with 1 DP)	
	Ethernet	2 x 10GbE RJ-45	2 x 1GbE RJ-45
	COM	2 x RS232/422/485	
	Audio	1 x Line-In, 1 x Line-Out, 1 x Mic-In Built-in HD audio w/ALC662 codec for 5.1 channel	
	USB	2 x USB3.1 Gen2, 2 x USB2.0	
Internal I/O Headers	USB	4 x USB2.0	
	COM	2 x RS232(Jumperless)	
	GPIO	5 x 2 pins	
	Front Panel	5 x 2 pins	
Security	TPM	Infineon SLB9670 TPM2.0 on board	
	Chassis	Intrusion Alert	
Power		DC 12V, 150W, Power Jack 2x2 power header in parallel (with protection diode)	
Expansion Slots		1x M.2 (Key M, 2242/2260/2280) with PCIe x2 and SATA for SSD 1x either SATA3.0 or M key 1 x SATA3.0 1 slot, PCIe x 4	



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