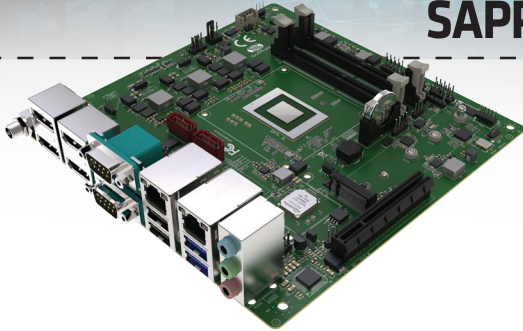# SAPPHIRE
Embedded Solutions

SAPPHIRE IPC-FP6 Embedded Mini-ITX Platform

10GbE, Highest Performance

The new SAPPHIRE IPC-FP6 Mini-ITX embedded motherboard is based on the latest AMD Ryzen™ Embedded V2000 Series Family of APUs which feature the industry leading AMD Radeon™ GPU graphics combined with the eight/six-core high-performance "Zen 2" CPU. Four independent 4K DP++ displays are supported in addition to dual-channel DDR4-3200 SODIMM memory, 1 and 10 Gigabit Ethernet controllers, and M.2 expansion for WiFi and SSD modules. The SAPPHIRE IPC-FP6 is an ideal solution for applications requiring a high speed communications front-end like a mini-server or high resolution display products like electronic gaming machines, medical imaging, interactive digital signage, thin clients, or POS terminals.

AMD Ryzen™ Embedded processors

- ▶ "Zen2" Architecture with 7nm FinFET
- ▶ Eight/Six CPU cores sixteen/twelve threads
- ▶ AMD Radeon™ Graphics up to 7 Compute Units
- ▶ Dual-channel DDR4 Up to 3200 MT/s

Features

- ▶ Up to four DisplayPort 1.4 Displays
- ▶ One eDP (Shared with 1 DP)
- ▶ Two USB 3.1 Gen2 and 2 USB 2.0 ports
- ▶ One 10/100/1000 Mbps Ethernet port
- ▶ One 1/10 Gbps Ethernet port
- ▶ Two (2x5) headers support four USB2.0
- ▶ One (2x4) header supports SPI bus
- ▶ Two (5 x 2) header – RS232
- ▶ TPM Security

Expansion Slots

- ▶ M.2 2242/2260/2280 M key slot for NVMe SSD (PCIe x 4)
- ▶ M.2 2230 E key slot (PCIe x 1)
- ▶ PCIe x 8 Slot
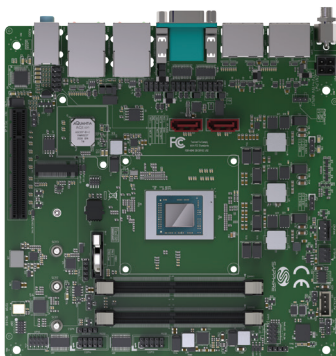
SKU		V2000	
Form Factor		Mini-ITX	
CPU		AMD Ryzen™ Embedded V2000	
TDP		Max. 54W	
Cooler		Active	
System Memory		2x DDR4-Up to 3200, Max. 64GB	
		DDR4 SO-DIMM (ECC/Non ECC)	
External I/O Edge Connectors	Displays	4 x DP 1.4 + 1 eDP(Shared with 1 x DP 1.4)	
	Ethernet	1 x RJ45 10/100/1000 Mbps 1 x RJ45 1/10 Gbps	
	COM	2 x RS232/422/485	
	Audio	1 x Line-In, 1 x Line-Out, 1 x Mic-In	
	USB	2 x USB3.1 Gen 2 2 x USB2.0	
Internal I/O Headers	COM	2 x (5 x 2) header – RS232 (Jumperless)	
	Front Panel	1 x (2 x 5) Header	
	Audio	N/A	
	USB	2x (2x5) header - 4 xUSB2.0 1 x (2 x 4) header	
	Others	SATA PWR 1 x 4 pins	
Security	TPM	Infineon SLB9670 TPM2.0 on board	
	Chassis	Intrusion Alert	
Power		12 - 19V DC power jack	
		2-pin power header (with protection diode)	
Expansion Slots		1 x M.2 (Key M, 2242/2260/2280) with PCIe x 4 for SSD	
		1 x M.2 (Key E, 2230) with PCIe x 1 and USB2.0 for Wireless	
		2 x SATA3 (6.0 Gb/s) + 1 x SATA Power	
		1 slot, PCIe x 8	
Miscellaneous		Watchdog timer trigger signal	

https://www.sapphiretech.com/en/embedded