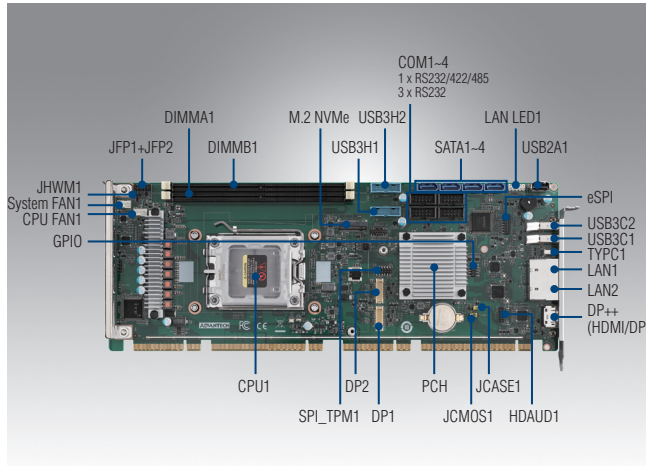


PCE-5223

LGA1718 AMD Ryzen™ 7000/9000/EPYC 4005 System Host Board, with DP/HDMI, DDR5, USB 3.2, M.2



Features

- AMD Ryzen™ Embedded 7000/9000/EPYC 4005 Processors with B650 chipset
- Up to 96 GB of dual-channel (ECC/non-ECC) DDR5 5600 MHz
- PCIe 5.0, M.2, USB 3.2, SATA 3.0, Dual LAN and SW Raid 0, 1, 10
- Supports DP++ and 2 x DP/HDMI display (with optional cable)
- Supports Advantech's TPM modules, SUSI 4.0, and embedded software APIs

Note 1: Legacy platform is not supported.

Note 2: dTPM 2.0 module is required to enable dTPM technologies.

Note 3: AMD iTPM ready for Windows 11.

Quiet

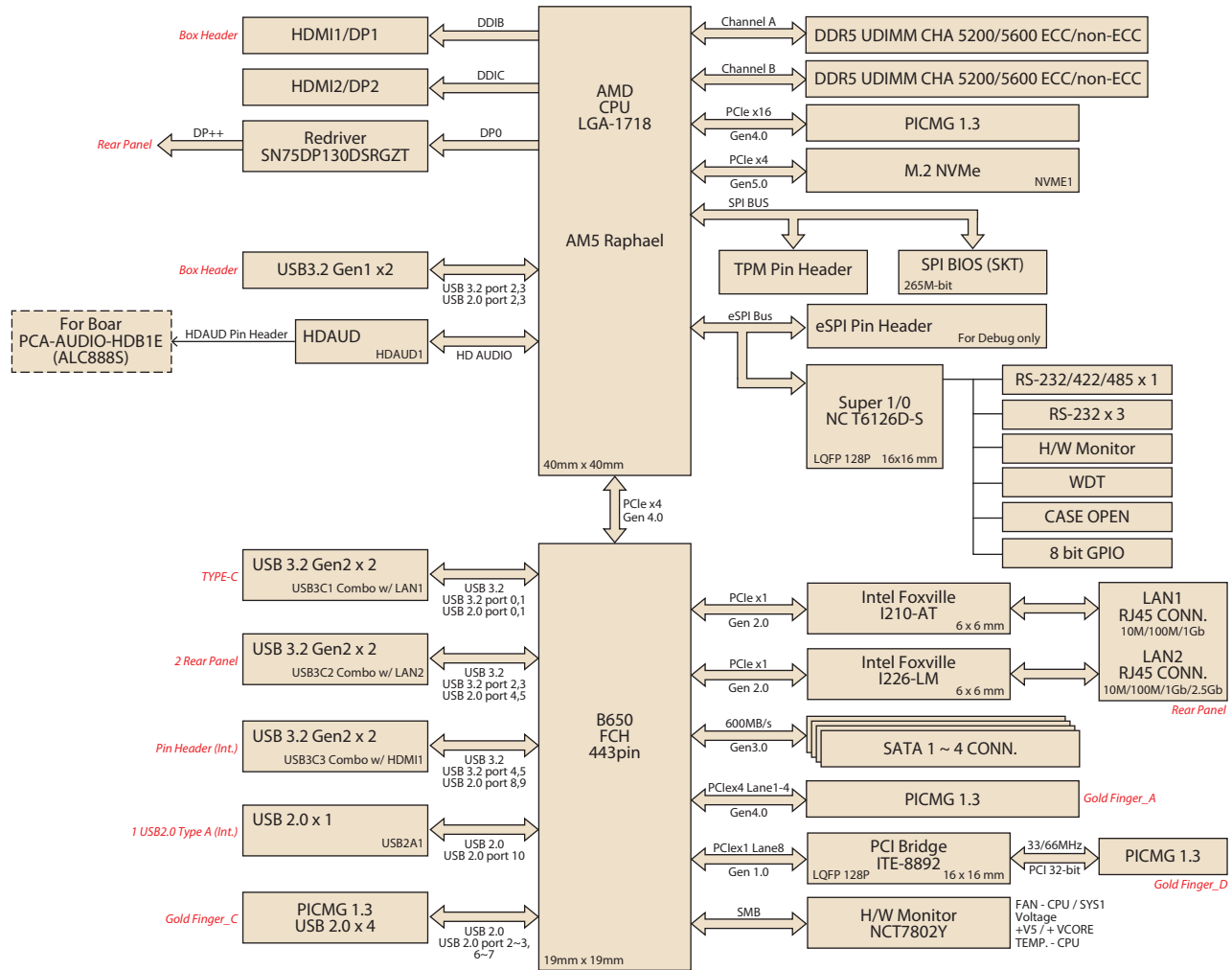
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Specifications

Processor System	CPU	Ryzen 9 PRO 7945	Ryzen 7 PRO 7745	Ryzen 5 PRO 7645	Ryzen 7 9700X	Ryzen 5 9600X	EPYC 4545P	EPYC 4465P	EPYC 4345P	EPYC 4245P
	P-core Base Frequency	3.7 GHz	3.8 GHz	3.8 GHz	3.8 GHz	3.9 GHz	3 GHz	3.4 GHz	3.8 GHz	3.9 GHz
	L3 Cache	64 MB	32 MB	32 MB	40 MB	32 MB	64 MB	64 MB	32 MB	32 MB
	Cores	12	8	6	8	6	16	12	8	6
	Processor Base Power	65 W	65 W	65 W	65 W	65 W	65 W	65 W	65 W	65 W
	Socket	LGA 1718								
	Chipset	B650								
Bus	BIOS	AMI 256Mbit SPI Flash								
	PCI-Express	1 x PCIe x16/2 x PCIe x8 and 1 x PCIe x4 to backplane								
Memory	PCI	4 x PCI master to backplane, 32-bit, 33 MHz								
	Technology	Dual-channel (ECC/non-ECC) U-DIMM DDR5 7000 series 5200MHz, 9000 series & EPYC 4005 5600MHz								
Graphics	Max. Capacity	Up to 96GB								
	Socket	2 x DDR5 288-pin DIMM								
	Controller	CPU integrated AMD Radeon™ Graphics								
	VRAM	Shared system memory is subject to OS								
	Display Port	Supports resolutions of up to 3840 x 2160 @ 60 Hz								
Ethernet	HDMI	Supports resolutions of up to 1920 x 1080 @ 60 Hz								
	Triple Display	1st: DP++, 2nd DP/HDMI, 3rd DP/HDMI (2nd and 3rd display via optional cable)								
	Interface	10/100/1000/2500 Mbps								
	Controller	LAN 1: Intel® i210-AT LAN 2: Intel® I226-LM								
Rear I/O	Connector with LED	2 x RJ45								
	USB 3.2 Gen2	2								
	Type C	1 (20G)								
	Ethernet	2								
	DP++	1								
Internal Connector	USB	5 x USB 2.0 (1 USB Type A + 4 to backplane), 4 x USB 3.2								
	SATA (SW Raid 0,1,10)	4								
	M.2 (2280 Type M)	1 (PCIe x4)								
	DP/HDMI	2 (Pin header)								
	COM	1 x RS232/422/485, 3 x RS232								
	GPIO	8bit								
Watchdog Timer	Output	System reset								
	Interval	Programmable 1-255 sec								
Miscellaneous	Audio	Intel® High Definition audio interface (requires audio extension module PCA-AUDIO-HDB1E)								
Environment	Operating	Non-Operating								
	Temperature	0 ~ 60 °C (dependent on CPU and cooler solution)								
	Humidity	-40 ~ 85 °C 40 °C @ 85% relative humidity (non-condensing) 60 °C @ 95% relative humidity (non-condensing)								
Power Requirement	Test Environment	AMD Ryzen 9 PRO 7945 12-Core Processor CPU @3.70GHz*1								
	Voltage	+3.3V, +5V, +12V								
	Current	4.91A, 8.75A, 3.94A								
Physical	Dimensions (L x H)	338 x 122 mm (13.3" x 4.8")								

Note: Power must be turned off before installing any expansion modules

Block Diagram



Ordering Information

Part Number	PCH	Memory	Backplane	LAN	DP++	DP/HDMI	COM	SATA III	M.2	USB 2.0	USB 3.2 (Gen1)	USB 3.2 (Gen2)	S/W Raid	AMT
PCE-5223G2-00A1	B650	ECC/non-ECC	PCE-5BXX PCE-7BXX	2	Yes	2*	4	4	1	1 (Type A)	2	2 (Rear)	Yes	NO

Note: DP/DVI/HDMI cable is optional

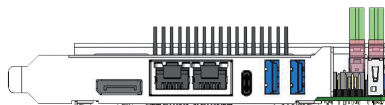
Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1701090401	COM cable w/ BKT 40cm	x1
2190000902	Warranty card	x1

Optional Accessories

Part Number	Description
1970006287N010	4 point mounting CPU cooler for 2U/4U chassis and wall-mount chassis (For CPU Base Power 65W)
PCA-AUDIO-HDB1E	Audio module
1700002204	2-port USB2.0 cable w/BKT (27 cm)
1700028292-01	2-port USB 3.0 cable w/ BKT (30 cm)
1700031719-01	4-port USB 3.0 cable w/ BRK (30 cm)
1701090401	1-port COM cable kit
1701092300	2-port COM cable kit
PCE-DP10-00A1E	DP to DP cable w/ BKT
PCE-DP20-00A1	2-port DP to DP cable w/BKT
1700034454-01	DP to HDMI cable w/ BKT
PCA-TPMSPI-00A1	dTPM 2.0 SPI module
PCA-TPMSPI-00A2	dTPM 2.0 RSA 4096 SPI module

I/O View



PCE-5223G2-00A1