



**1st/2nd Gen Intel® Xeon® Scalable Processor Family
EATX**

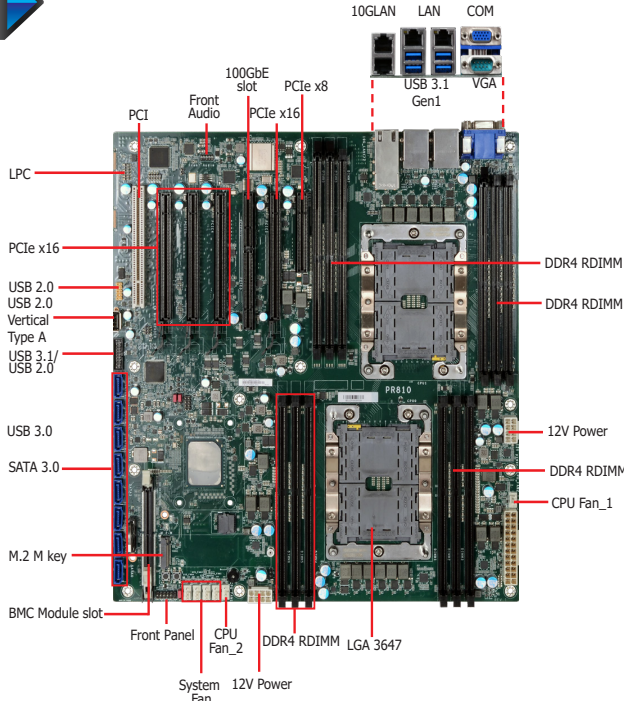


PR810-C622

Server-grade

Features

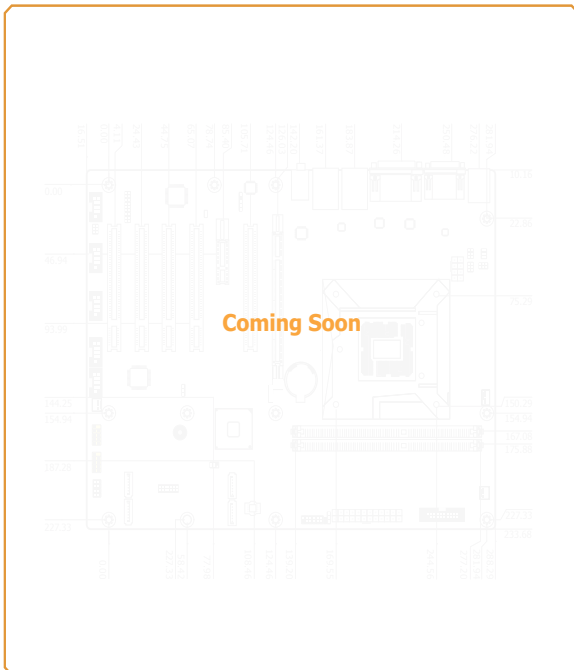
- 12 DDR4 RDIMM up to 384GB
- VGA resolution up to 1920x1200 @ 60Hz
- Multiple expansion: 4 PCIe x16, 1 PCIe x8, 1 PCI, 1 M.2
- Rich I/O: 2 Intel 10GbE, 2 Intel GbE, 2 COM, 8 SATA 3, 5 USB 2.0, 6 USB 3.1 Gen1



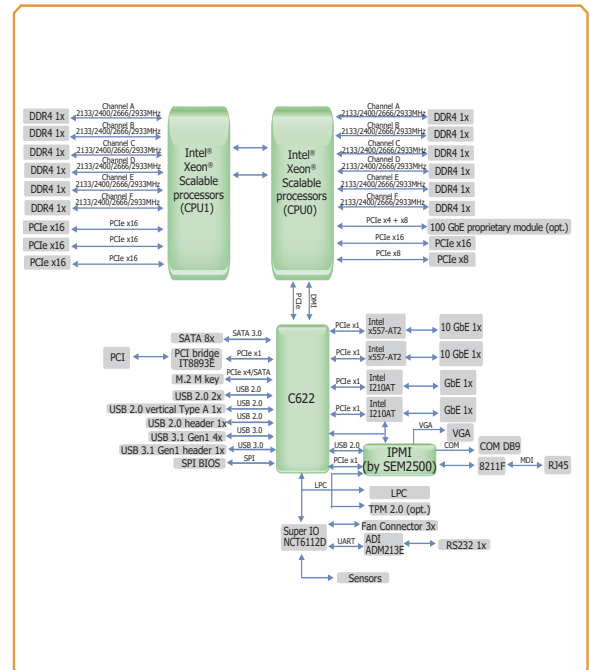
Ordering Information

Model Name	P/N	GbE	RS-232	USB 3.1 Gen1	USB 2.0	VGA	BMC Module	Thermal	Temp.
PR810-C622IR	770-PR8101-000G	2	1	6	5	0	0	cooler	0~40°C
PR810-C622IRV	770-PR8101-100G	2	1	6	5	1	SEM2501-VGA	cooler	0~40°C
PR810-C622IRI	770-PR8101-200G	2	1	6	5	1	SEM2500-VGA/IPMI	cooler	0~40°C

Mechanical Drawing



Block Diagram





Specifications

SYSTEM	Processor	1st Generation Intel® Xeon® Scalable Processor Family, LGA 3647 Socket: Intel® Xeon® Platinum 8160T (24 Cores, 27.5M Cache, up to 3.7 GHz); 150W Intel® Xeon® Gold 6138T (20 Cores, 27.5M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 6138 (20 Cores, 27.5M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 6130T (16 Cores, 22M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 6130 (16 Cores, 22M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 6126T (12 Cores, 19.25M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 6126 (12 Cores, 19.25M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 5120T (14 Cores, 19.25M Cache, up to 3.2 GHz); 105W Intel® Xeon® Gold 5119T (14 Cores, 19.25M Cache, up to 3.2 GHz); 85W Intel® Xeon® Gold 5118 (12 Cores, 16.5M Cache, up to 3.2 GHz); 105W Intel® Xeon® Silver 4116T (12 Cores, 16.5M Cache, up to 3.0 GHz); 85W Intel® Xeon® Silver 4116 (12 Cores, 16.5M Cache, up to 3.0 GHz); 85W Intel® Xeon® Silver 4114T (10 Cores, 13.75M Cache, up to 3.0 GHz); 85W Intel® Xeon® Silver 4110 (8 Cores, 11M Cache, up to 3.0 GHz); 85W Intel® Xeon® Silver 4109T (8 Cores, 11M Cache, up to 3.0 GHz); 70W Intel® Xeon® Bronze 3106 (8 Cores, 11M Cache, 1.7 GHz); 85W 2nd Generation Intel® Xeon® Scalable Processor Family, LGA 3647 Socket: Intel® Xeon® Gold 6252N (24 Cores, 35.75M Cache, up to 3.6 GHz); 150W Intel® Xeon® Gold 6238T (22 Cores, 30.25M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 6230T (20 Cores, 27.5M Cache, up to 3.9 GHz); 125W Intel® Xeon® Gold 6230N (20 Cores, 27.5M Cache, up to 3.5 GHz); 125W Intel® Xeon® Gold 6230 (20 Cores, 27.5M Cache, up to 3.9 GHz); 125W Intel® Xeon® Gold 6226 (12 Cores, 19.25M Cache, up to 3.7 GHz); 125W Intel® Xeon® Gold 5220T (18 Cores, 24.75M Cache, up to 3.9 GHz); 105W Intel® Xeon® Gold 5218T (16 Cores, 22M Cache, up to 3.8 GHz); 105W Intel® Xeon® Gold 5218N (16 Cores, 22M Cache, up to 3.7 GHz); 110W Intel® Xeon® Gold 5215 (10 Cores, 13.75M Cache, up to 3.4 GHz); 85W Intel® Xeon® Silver 4216 (16 Cores, 22M Cache, up to 3.2 GHz); 100W Intel® Xeon® Silver 4215 (8 Cores, 11M Cache, up to 3.5 GHz); 85W Intel® Xeon® Silver 4214 (12 Cores, 16.5M Cache, up to 3.2 GHz); 85W Intel® Xeon® Silver 4210 (10 Cores, 13.75M Cache, up to 3.2 GHz); 85W Intel® Xeon® Silver 4209 (8 Cores, 11M Cache, up to 3.2 GHz); 70W			
	Chipset	Intel® C622 Chipset			
	Memory	12 x 288-pin RDIMM up to 384GB	Single Channel DDR4 up to 2133/2400/2666/2933 MHZ (Support Intel DC Persistent Memory)		
	BIOS	Insyde			
	GRAPHICS	Display	1 x VGA (opt.)		
	Single Displays	VGA (opt.)			
EXPANSION	Interface	4 x PCIe x16 (Gen 3) 1 x PCIe x8 (Gen 3) 1 x PCI 1 M.2 M key2280 (PCIe Gen3 x4 NVMe/SATA) 1 x BMC Module slot for SEM2500/2510 (IPMI) 1 x 100GbE slot (x4 + x8) for EXT-100GbE proprietary module			
AUDIO	Audio Codec	ALC887			
ETHERNET	Controller	2 x Intel® I210AT (10/100/1000Mbps), 1 x Intel x557-AT2 (10GbE)			
REAR I/O	Serial	1x RS-232 (DB-9)			
	Ethernet	2 x GbE (RJ-45)	IPMI 2.0: 1 share w/ i210AT (opt.)		
	USB	4x USB 3.1 Gen1	2x USB 2.0 stack (opt.w/ RJ45+USB2.0 stack)		
	Display	1 x VGA (opt.)			
INTERNAL I/O	Serial	1x RS-232			
	USB	1 x USB 2.0 header (2x USB 2.0) 1 x USB 2.0 vertical Type A 1 x USB 3.1 Gen1 header (2x USB 3.1 Gen1)			
	SATA	8 x SATA 3 (up to 6Gb/s)	RAID 0/1/5/10		
	SMBus	1 x SMBus			
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 sec/Min			
SECURITY	TPM	TPM 2.0 (opt.)			
POWER	Type	ATX			
	Connector	8-pin ATX 12V power	24-pin ATX power		
	Consumption	TBD			
	RTC Battery	CR2032 Coin Cell			
OS SUPPORT		Windows 10 IoT Enterprise LTSB R55(64-bit)	Linux		
		Windows Server 2019			
		Windows Server 2016			
ENVIRONMENT	Temperature	Operating: 0 to 40°C	Storage: -40 to 85°C		
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH		
	MTBF	TBD			
MECHANICAL	Dimensions	EATX Form Factor	305mm (12") x 330mm (13")		
	Height	PCB: TBD	Top Side: TBD mm Bottom Side: TBD		

Packing List

• 1 PR810-C622 motherboard	
• 1 I/O shield	
• 1 M.2 screw for 2280	A32-112016-041G
• 1 CPU clip	348-436471-100G
• 1 SEM 2500/2510 (by orderd P/N)	

Optional Items

• USB 2.0 port cable (Length: 350mm)	A81-001066-016G
• SATA cable (Length: 500mm)	332-553001-005G
• USB 3.1 Gen1 cable (Length: 320mm)	A81-001052-023G
• LGA3647 cooler	A71-101400-000G

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