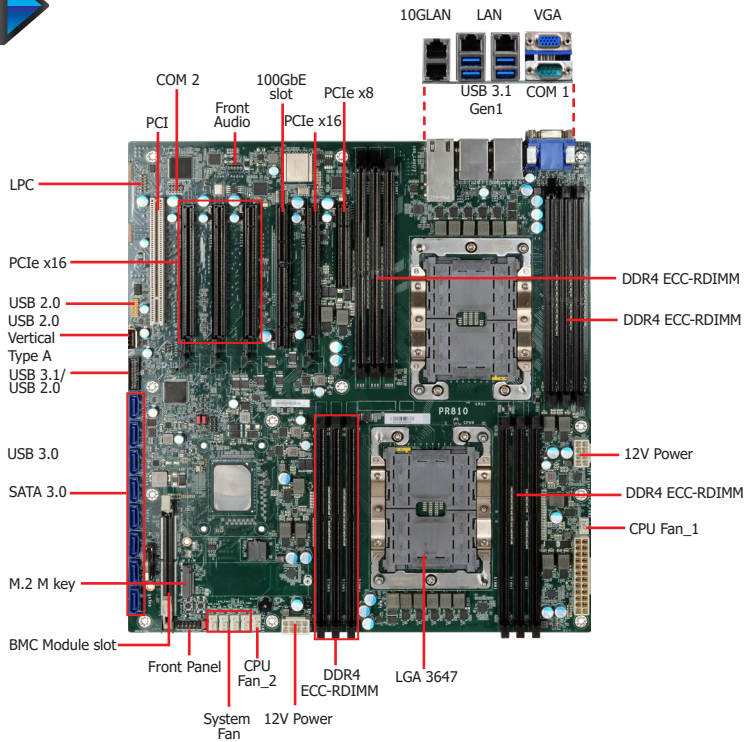


## PR810-C622

Server-grade

C622



### Features

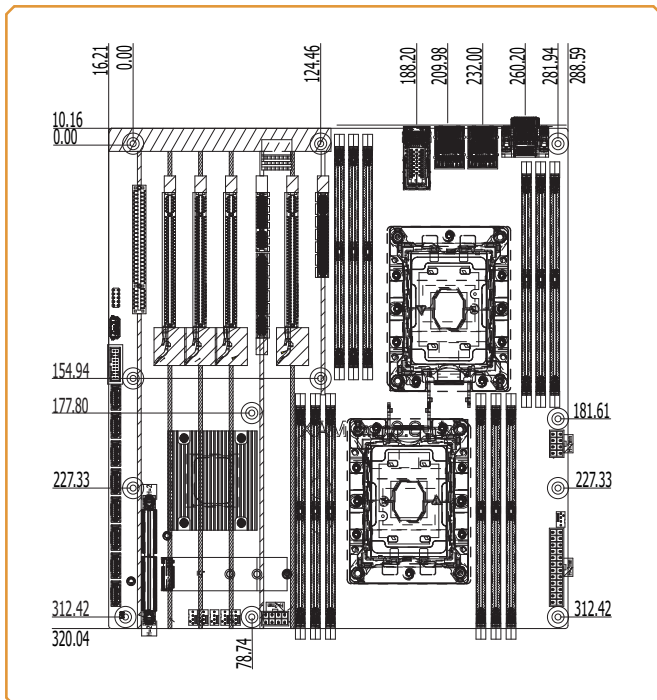
- 12 DDR4 ECC-RDIMM up to 768GB
- VGA resolution up to 1920x1200 @ 60Hz
- Multiple expansion: 4 PCIe x16, 1 PCIe x8, 1 PCI, 1 M.2
- Rich I/O: 2 Intel 10GbE, 2 Intel GbE, 2 COM, 8 SATA 3, 3 USB 2.0, 6 USB 3.1 Gen1



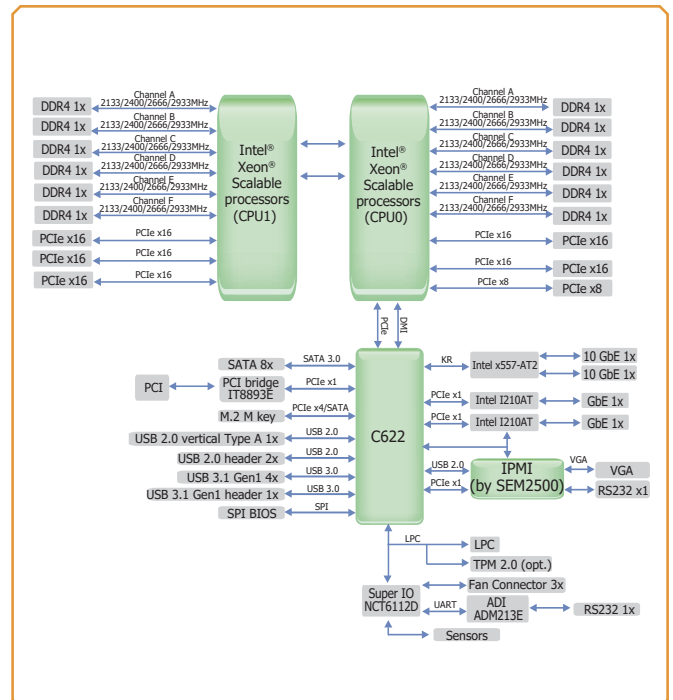
### Ordering Information

Model Name	P/N	10GbE	GbE	RS-232	USB 3.2 Gen1	USB 2.0	VGA	TPM	BMC Module	Temp.
PR810-C622IR	770-PR8101-000G	2	2	1	6	5	0	0	0	0~40°C
PR810-C622IRV	770-PR8101-100G	2	2	1	6	5	1	0	SEM2510-VGA	0~40°C
PR810-C622IRI	770-PR8101-200G	2	2	1	6	5	1	0	SEM2500-VGA/IPMI	0~40°C
PR810-C622IR	770-PR8101-300G	2	2	1	6	5	0	1	0	0~40°C
PR810-C622IRV	770-PR8101-400G	2	2	1	6	5	1	1	SEM2510-VGA	0~40°C
PR810-C622IRI	770-PR8101-500G	2	2	1	6	5	1	1	SEM2510-VGA/IPMI	0~40°C

### Mechanical Drawing



### Block Diagram



## Specifications

<b>SYSTEM</b>	<b>Processor</b>	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	
	<b>Chipset</b>	Intel® C622 Chipset	
	<b>Memory</b>	12 x 288-pin ECC-RDIMM up to 768GB	Single Channel DDR4 up to 2133/2400/2666/2933 MHZ (Support Intel DC Persistent Memory)
	<b>BIOS</b>	Insyde	
	<b>GRAPHICS</b>	<b>Display</b>	1 x VGA (opt.)
	<b>Single Displays</b>	VGA (opt.)	
<b>EXPANSION</b>	<b>Interface</b>	4 x PCIe x16 (Gen 3) 1 x PCIe x8 (Gen 3) 1 x PCI 1 M.2 M key 2280 (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 Note: PCIe x8 slot is OPEN edge.	
	<b>AUDIO</b>	<b>Audio Codec</b>	ALC887
<b>ETHERNET</b>	<b>Controller</b>	2 x Intel® I210AT (10/100/1000Mbps), 1 x Intel x557-AT2 (10GbE)	
<b>REAR I/O</b>	<b>Serial</b>	1 x RS-232 (DB-9)	
	<b>Ethernet</b>	2 x GbE (RJ-45) 2 x 10 GbE x557-AT2	IPMI 2.0: 1 share w/ i210AT (opt.)
	<b>USB</b>	4 x USB 3.1 Gen1	
	<b>Display</b>	1 x VGA (opt.)	
<b>INTERNAL I/O</b>	<b>Serial</b>	1x RS-232	
	<b>USB</b>	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)	
	<b>SATA</b>	8 x SATA 3 (up to 6Gb/s)	RAID 0/1/5/10
	<b>SMBus</b>	1 x SMBus	
	<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 sec/Min
<b>SECURITY</b>	<b>TPM</b>	TPM 2.0 (opt.)	
<b>POWER</b>	<b>Type</b>	ATX	
	<b>Connector</b>	8-pin ATX 12V power	24-pin ATX power
	<b>Consumption</b>	Idle: 8276M 3.3V @ 0.03A (0.09W), 5V @ 3.86A (19.3W), 12V @ 3.42A (41.04W) Max: 8276M 3.3V @ 0.04A (0.13W), 5V @ 4.84A (24.2W), 12V @ 25.28A (303.36W)	
	<b>RTC Battery</b>	CR2032 Coin Cell	
	<b>OS SUPPORT</b>	Windows 10 IoT Enterprise LTSC RS5(64-bit) Windows Server 2019 Windows Server 2016	Linux
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: 0 to 40°C	Storage: -40 to 85°C
	<b>Humidity</b>	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	<b>MTBF</b>	450,938 hrs @ 25°C; 305,034 hrs @ 40 °C Calculation model: Telcordia Issue 4 Environment: GB, GC - Ground Benign, Controlled	
<b>MECHANICAL</b>	<b>Dimensions</b>	EATX Form Factor	305mm (12") x 330mm (13")
	<b>Height</b>	PCB: 1.8mm	Top Side: 32 mm, Bottom Side: 4.0mm
<b>CERTIFICATION</b>	<b>Certification</b>	CE, FCC, RoHS, UKCA	

## Packing List

• 1 PR810-C622 motherboard	
• 1 I/O shield	A49-PR8100-000G (w/ VGA) A49-PR8100-010G (w/o VGA)
• 1 M.2 screw for 2280	A32-112016-041G
• 1 CPU clip	348-436471-100G
• 1 SEM 2500/2510 (by order 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
• Cooler (Narrow ILM LGA 3647)	A71-101400-000G
• EXT-100GbE	770-EXT100-000G