



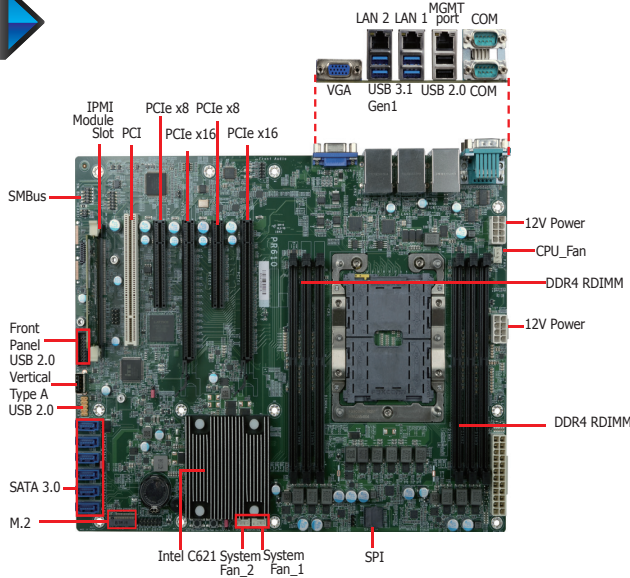
**1st/2nd Gen Intel® Xeon® Scalable Processor Family  
ATX**



**PR610-C621**

Server-grade

**C621**



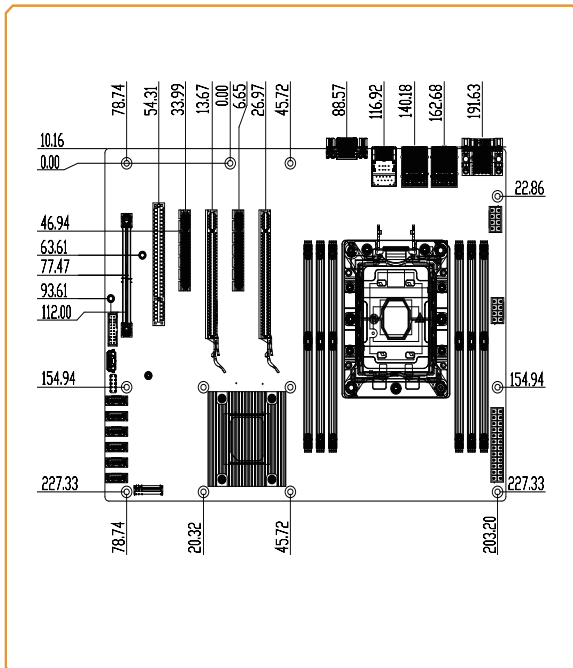
IPMI Module

**Features**

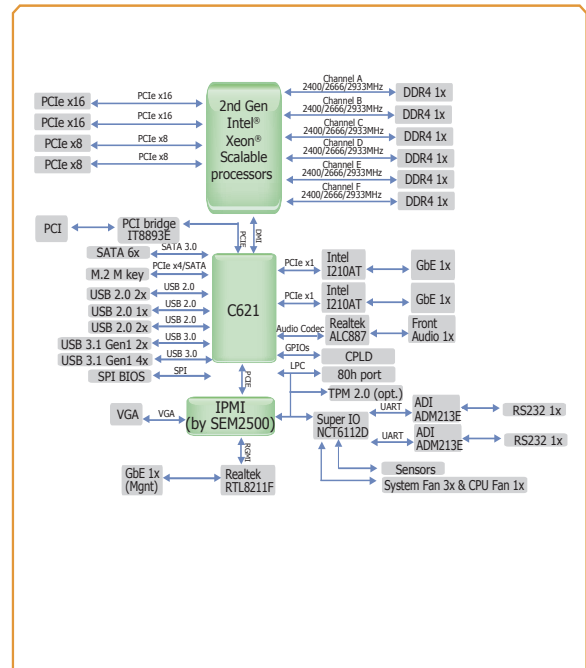
- 6 DDR4 RDIMM up to 192GB
- Multiple expansion: 2 PCIe x16, 2 PCIe x8, 1 PCI, 1 M.2
- Rich I/O: 2 Intel GbE, 1 dedicated IPMI LAN, 2 COM, 6 SATA 3, 5 USB 2.0, 6 USB 3.1 Gen1



**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® C621 Chipset	
	<b>Memory</b>	Six 288-pin RDIMM up to 192GB	Single Channel DDR4 up to 2933 MHZ
	<b>BIOS</b>	Insyde SPI 128Mbit	
	<b>GRAPHICS</b>	<b>Display</b>	1 x VGA (opt.)
		<b>Single Displays</b>	VGA (opt.)
<b>EXPANSION</b>	<b>Interface</b>	2 x PCIe x16 (Gen 3) 2 x PCIe x8 (Gen 3) 1 x PCI 1 x DDR4 SO-DIMM for SEM2500/2510 (opt.) 1 x M.2 M key 2280 (SATA/PCIe Gen3 x4 NVMe)	
<b>AUDIO</b>	<b>Audio Codec</b>	ALC887	
<b>ETHERNET</b>	<b>Controller</b>	2 x Intel® I210AT PCIe (10/100/1000Mbps) IPMI: 1 x RTL8211F	
<b>REAR I/O</b>	<b>Ethernet</b>	2 x GbE (RJ-45) 1 x dedicated IPMI LAN (opt.)	
	<b>USB</b>	4x USB 3.1 Gen1 2x USB 2.0 stack (opt.w/ RJ45+USB2.0 stack)	
	<b>Display</b>	1 x VGA (opt.)	
	<b>Serial</b>	2 x RS-232 (DB-9)	
<b>INTERNAL I/O</b>	<b>USB</b>	2x USB 2.0 header (2x USB 2.0) 1x USB 2.0 vertical Type A 1x USB 3.1 Gen1 header (2x USB 3.1 gen1)	
	<b>SATA</b>	6 x SATA 3.0 (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>	TBD	
	<b>RTC Battery</b>	CR2032 Coin Cell	
<b>OS SUPPORT</b>		Windows 10 IoT Enterprise LTSB RS5(64-bit) Windows Server 2012R2 Windows Server 2016 Linux	
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: 0 to 60°C	Storage: -40 to 85°C
	<b>Humidity</b>	Operating: 5 to 90% RH, Non-condensing	Storage: 5 to 90% RH, Non-condensing
	<b>MTBF</b>	TBD	
<b>MECHANICAL</b>	<b>Dimensions</b>	ATX Form Factor	305mm (12") x 244mm (9.6")
	<b>Height</b>	PCB: TBD	Top Side: TBD mm Bottom Side: TBD

**Ordering Information**

Model Name	P/N	GbE	RS-232	USB 3.1 Gen1	USB 2.0	VGA	IPMI-Mgmt	BMC Module	Thermal	Temp.
PR610-C621DR	770-PR6101-000G	2	2	6	5	0	0	0	Cooler	0~60°C
PR610-C621DRV	770-PR6101-100G	2	2	6	5	1	0	SEM2510-VGA	Cooler	0~60°C
PR610-C621DRI	770-PR6101-200G	2	2	6	5	1	1	SEM2500-VGA/IPMI	Cooler	0~60°C

**Packing List**

• 1 PR610-C621 motherboard	
• 1 I/O shield	
• 1 M.2 screw for 2280	A32-112016-041G
• 1 SEM2500/2510 (by ordered P/N)	

**Optional Items**

• USB 2.0 port cable (Length: 398mm)	A81-001066-016G
• LGA3647 cooler	A71-101400-000G
• USB 3.1 Gen1 cable (Length: 320mm)	A81-001052-023G
• 1 Serial ATA cable (Length: 500mm)	332-553001-005G

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