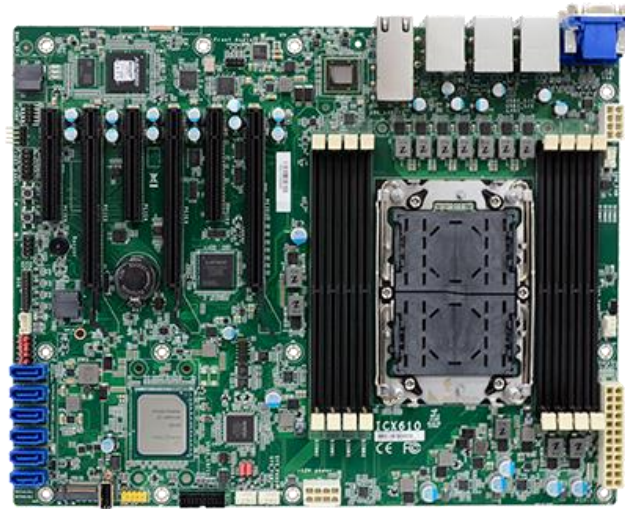


MBU4198

Industrial Motherboard Series



MBU4198

PRODUCT HIGHLIGHTS

- ▶ 3rd Gen Intel® Xeon® Scalable Processor Family
- ▶ 8 ECC-RDIMM up to 512GB
- ▶ IPMI OOB Remote Management
- ▶ Multiple expansion: 3 PCIe x16, 2 PCIe x8, 1 x M.2 M key
- ▶ VGA resolution up to 1920x1200 @ 60Hz
- ▶ Rich I/O: 2 Intel GbE, 1 Dedicated IPMI, 2 COM, 5 USB 3.1 Gen1, 5 USB 2.0
- ▶ 15-Year CPU Life Cycle Support until Q2 '36 (Based on Intel IOTG Roadmap)



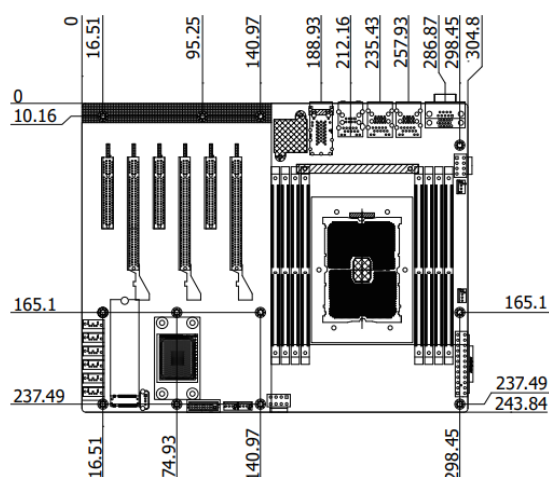
TECHNICAL INFORMATION

SYSTEM	PROCESSOR	3rd Gen Intel® Xeon® Scalable Processor Family, LGA 4189 (Socket P+)
	CHIPSET	Intel® C621A Chipset
	MEMORY	Eight x 288-pin ECC-RDIMM up to 512GB Single Channel DDR4 up to 3200 MHZ
	BIOS	Insyde SPI 128Mbit
GRAPHICS	CONTROLLER	BMC AST2500
	DISPLAY	1 x VGA VGA: resolution up to 1920x1200 @ 60Hz
	SINGLE DISPLAY	VGA
EXPANSION	INTERFACE	3 x PCIe x16 (Gen 4)(Slot 1 share w/ 2 x8) 2 x PCIe x8 (Gen 4) 1 x M.2 2280 M key (SATA/PCIe Gen3 x4 NVMe)
AUDIO	AUDIO CODEC	Realtek ALC888S
ETHERNET	CONTROLLER	2 x Intel® I210AT PCIe (10/100/1000Mbps) 2 x Intel® X550-AT2 PCIe (10Gbps) IPMI: RTL8211F
REAR I/O	ETHERNET	2 x GbE (RJ-45) 2 x 10GbE (RJ-45) 1 x Dedicated IPMI LAN
	SERIAL	1 x RS-232 (DB-9)
	USB	4 x USB 3.1 Gen1 (w/ RJ45 + USB 3.1 stack) 2 x USB 2.0 (w/ RJ45 + USB 2.0 stack)
	DISPLAY	1 x VGA
	AUDIO	N/A
INTERNAL I/O	SERIAL	1 x RS-232 (2x5-pin)
	USB	2 x USB 3.1 Gen1 2 x USB 2.0 1 x USB 2.0 Vertical Type A
	AUDIO	1 x Front Audio Header
	SATA	6 x SATA 3.0 (up to 6Gb/s) RAID 0/1/5/10
	DIO	1 x 16-bit DIO
	LPC	1 x LPC (supports LPC EXT-RS232/RS485 module)
	SMBUS	1 x SMBus
	OUTPUT & INTERVAL	System Reset, Programmable via Software from 1 to 255 Seconds
	SECURITY TPM	Infineon TPM2.0 (opt., MOQ required)
	TYPE	ATX
	CONNECTOR	8-pin ATX 12V power 24-pin ATX power
	CONSUMPTION	TBD
	RTC BATTERY	CR2032 Coin Cell

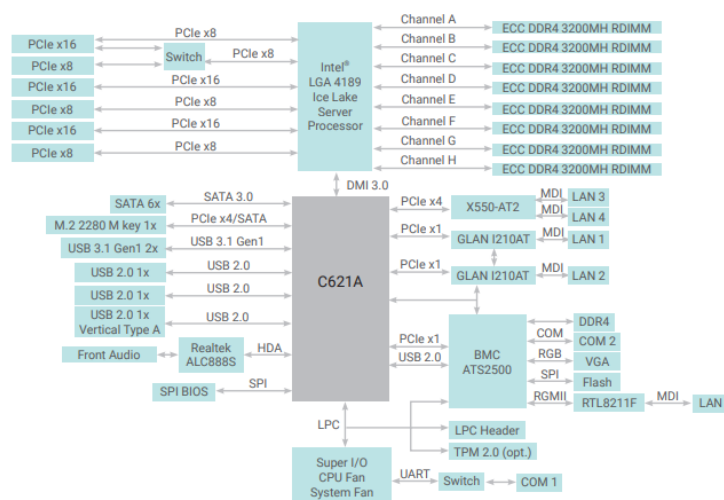
TECHNICAL INFORMATION (CONTINUED)

OS SUPPORT		Windows 10 Pro 64-bit Windows 10 IoT Enterprise 64-bit Windows Server 2019 Linux (Ubuntu 20.04)
ENVIRONMENT	TEMPERATURE	Operating: -5 to 65°C Storage: -30 to 60°C with RTC Battery; -40 to 85°C without RTC Battery
	HUMIDITY	Operating: 5 to 90% RH Storage: 5 to 90% RH
	MTBF	TBD
MECHANICAL	DIMENSIONS	ATX Form Factor 305mm (12") x 244mm (9.6")
	HEIGHT	PCB: 1.6mm Top Side: 37.34mm
CERTIFICATIONS		CE, RoHS

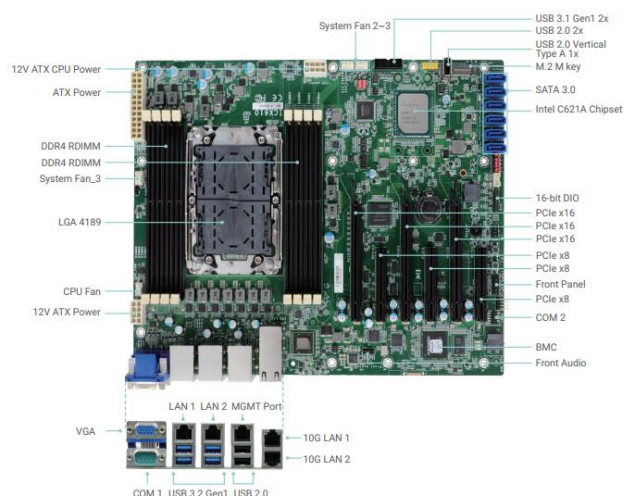
MECHANICAL DRAWING



BLOCK DIAGRAM



MOTHERBOARD LAYOUT



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