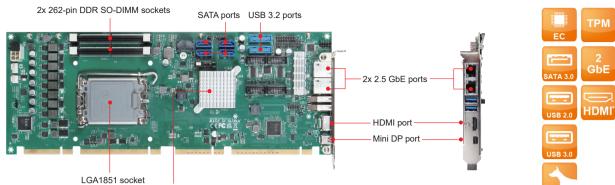
Intel<sup>®</sup> Core<sup>™</sup> Ultra Series Processors and 800 Series Chipset based PICMG 1.3 SBC/SHB with DDR5 SDRAM, HDMI®, MiniDP, Dual 2.5GbE Ethernet, Audio and USB



Intel® W880

ROBO-8117G2AR features Intel® 800 Series chipset and Intel<sup>®</sup> Core<sup>™</sup> Ultra Series workstation processors.

Built with flexible PCI express expansions, ROBO-8117G2AR is suitable for Medical, Industrial automation, and Digital Signage application.

### **FEATURES**

- Support Intel<sup>®</sup> Core<sup>™</sup> Ultra Series processors in LGA1851 package
- Delivers up to 96GB maximum DDR5 6400 ECC SO-DIMM on two sockets
- Supports multiple display by mini-DP and dual HDMI®
- High speed dual 2.5Gigabit Ethernet based on PCI express x 1, high bandwidth I/O interface
- Support two USB 3.2 Gen2 on REAR I/O
- Support on board TPM2.0

# **ORDERING GUIDE**

AB1-3T07	(R).ROBO-8117G2AR
	PICMG 1.3(PCI-E+PCI).LGA1851.W880
	PCH. Intel Core Ultra processors. SHB. w/
	miniDP/HDMI/Dual GbE/Audio/four COM
	ports

### **PACKING LIST**

Standard	B6902932 SATA III cable
	TDB Installa
	B6902352 *(GP).Cable.DB9x2 to HSG(5x2)x2
	L=300mm W/Bracket for Ruby-9717/Ruby-9718.
	CY-8A08006R.CHUAN YANG
Optional	B6903090 USB 3.0 cable with bracket
	B6902230 USB port cable with bracket







#### **GENERAL**

Processor	- Intel®15 <sup>th</sup> Gen Core™ Processors in LGA1851 package - Support Intel® Turbo Boost, Hyper-Threading, Virtualization, Thermal Monitoring, - Trusted Execution and Speed Step Technology (depends on CPU sku)
Chipset	Intel® W880
BIOS	AMI uEFI BIOS
Memory	Supports up to 96GB DDR5 6400 SDRAM on two 262-pin SODIMM sockets Supports ECC
Storage Devices	- 6x SATAIII drives (Dual ports via Backplane) - Supports RAID 0, 1, 5, 10 - 1x M.2 Type M 2280 (on bottom side)
Watchdog Timer	Programmable watchdog timer, time out period from 0.5 sec to 254.5 secs
Hardware Monitoring	System monitor(Voltage, Fan Speed and Temperature)
Expansion Interface	<ul> <li>From CPU: 1x PCle x16(Gen5) or 2x PCle x8(Gen5) and 1x PCe x4(Gen4) setting (Gen5 up to 32 GT/s)</li> <li>From PCH: 1x PCle x4 or 4x PCle x1 by different bios support (Gen 4 up to 16 GT/s), 4x PCl devices at 32bit 33MHz</li> </ul>

I/O INTERFACE	
Super I/O	ITE IT5121E-I
Audio	<ul> <li>Intel<sup>®</sup> PCH built-in High Definition Audio up to 192-kHz 32-bit</li> <li>Realtek ALC888S HDA codec, 7.1 channels one on board audio pin header</li> </ul>
Ethernet	<ul> <li>Dual Intel<sup>®</sup> WGI226LM Gigabit Ethernet controller</li> <li>Dual 10BASE-T / 100BASE-TX / 1000BASE-T / 2500BASE-T Ethernet</li> <li>PCI Express x1 interface based on Gigabit Ethernet</li> <li>Dual RJ-45 connectors with two LED indicators</li> </ul>
Serial Port	- 2x RS-232 ports - 2x RS-232/422/485 ports selectable - LPC to COM port IC: Fintek F81216E
USB	<ul> <li>4x USB 2.0 ports on board</li> <li>4x USB 2.0 ports (through backplane)</li> <li>2x USB 3.2(Gen2) ports on bracket</li> <li>4x USB 3.2(Gen2) ports on board</li> </ul>
Keyboard & Mouse	TDB
GPIO	On board programmable 8-bit Digital I/Os

# DISPLAY

Graphic Controller	Graphic with Xe LPG architecture, up to 4Xe Graphics Engines
Display Interface	<ul> <li>Support independent triple display by mini-DP on bracket: Resolution up to 7680 x 4320 @ 60Hz</li> <li>HDMIon bracket: : Resolution up to 7680 x 4320 @ 60Hz</li> <li>HDMI on board: Resolution up to 7680 x 4320 @ 60Hz</li> </ul>

Mechanical &	& Environment
Dimension	- 338.5mm(L) x 126.39mm(W),13.33"(L) x 4.98"(W) - PCB: 12 layers
Power Supply	- Typical: +12V, +5V - Support ATX mode
Environment	- Operation Temperature: 0°C to 60°C - Storage Temperature: -20°C to 80°C - Relative Humidity: 5~95%, non-condensing
Certification	CE,FCC Class A
MTBF	Over 100,000 hours at 40°C