## MB-8513G3V

Intel® 8<sup>th</sup> Generation Xeon®/Core® Processor C246 Chipset Based Industrial ATX Motherboard with 13x USB Ports/10x COM Ports/DP/DVI-I/VGA/ Triple Gigabit LAN







## **FEATURES**

**Mechanical & Environment** 

- Intel® 8<sup>th</sup> Generation Intel® Xeon®/Core® Processor in Socket 1151
- Four 288-pin uDIMM sockets Dual-channel DDR4 2400/2666 Module. Max. up to 64GB memory (ECC/Non-ECC)
  - Intel® C246 Express chipset
- Intel® Dual I210AT & I219LM on board for Triple GbE LAN
- Integrated Intel® HD 9 Graphics with VGA/HDMI/Dual DP ++ connectors
- Realtek® ALC887 High Definition Audio chip on-board
- Multi I/O: 13x USB, 10 x COM ports, 6 x SATA 3.0 Port
- Expansion Slot: 3 PCIe x16 (Signal configured as 1 PCIe x16 or 2 PCIe x8 or 1 PCIe x8 + 2 PCIe x4), 2 PCIe x4 (PCIe x16 Slot Type) and 2 PCIe x1 Slots

Form Factor	12" x 9.6" (307mm x 244mm)	
Operation temperature	0°C to 60°C (32° F to 140° F)	
Storage temperature	-20°C to 80°C (-68° F to 176° F)	
Relative humidity	10% to 90% (Non-Condensing)	
Ordering Information		
MB-8513G3V	Intel® 8th Generation Xeon®/Core® Processor C246 Chipset	
	Based Industrial ATX Motherboard with 13x USB Ports/10x COM	
	Ports/DP/HDMI/VGA/ Triple Gigabit LAN	

## Introduction

Industrial Motherboard MB-8513G3V based on the Intel® C246 Chipset, supports Intel®  $8^{th}$  Generation Xeon®/Core<sup>TM</sup> i7/5/3 Processor. Integrated with Intel® HD Integrated HD Controller,  $10 \times Com Port$ ,  $13 \times USB$ ,  $6 \times SATA 3.0$ .

MB-8513G3V is ideal for developing high-performance systems for Factory Automation, Machine Automation, Test & Measurement Control & Machine Vision control.

**Specification** 

System	
Processor	• LGA 1151 socket for:
	- 8th generation Intel® Xeon®/Core® /Pentium®/Celeron®
	processors, Max 95W
BIOS	AMI UEFI
System Memory	Four 288-pin DDR4 uDIMM sockets
	Supports up to 64GB ECC/non ECC RAM
	Dual Channel DDR4 2400/2666MHz
Chipset	Intel® C246 Express Chipset
Video	Intel® HD Graphics
	VGA up to 1920 x 1200 @60Hz
	• HDMI up to 4096 x 2160 @24Hz
	• DP up to 4096 x 2304 @60Hz
Ethernet	Intel® Dual I210 PCI Express Gigabit Ethernet controller
	• Intel® I217LM with iAMT9.0 Gigabit Ethernet Phy
	Integrated 10/100/1000 transceiver
	<ul> <li>Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab</li> </ul>
On Board I/O	1x Connector for PS/2 Mouse/Keyboard
	• 10 x Serial ports
	(2 x RS-232/422/485 ,0V/5V/12V, 8x RS-232C , 0V/5V/12V)
	• 6 x SATA 3.0 (Support RAID 0/1/5/10, SATA Port 6
	share with M.2 M Key)
	• 13 USB: 6 x USB 3.1 Gen2 (6 x rear), 7 x USB 2.0 (2 x rear, 5 x
	internal with one Vertical Type-A)
	• 1x SMBus
	• 1x 16-bits (8 x GPI; 8 x GPO), 5V
TPM function	• 1 x TPM module expansion (optional)
Watchdog Timer	Programmable watchdog timer for 1~255 seconds.
CMOS	On-board RTC with 242 bytes of Battery-back CMOS RAM.
Audio	Realtek® ALC887 High Definition Audio
	Audio outputs: Mic-in/Center+Subwoofer, line-in/surround and
	line-out
Power	One 24pins power connector for system power.
	One ATX-12V 8-pins connector for CPU power.
0 "	Support both AT and ATX mode.
Cooling	One CPU cooling FAN connector nearby CPU socket
Packing List	
item	Description / Quantity
Motherboard	MB-8513G3V / 1
Driver	DVD driver disk with Guide / 1
Shield	I/O shield / 1
SATA	Serial ATA data cables / 1
USB	Two USB port cable with bracket / 1
COM	COM port cables with bracket / 1
PS/2	PS2 Y-cable / 1

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