



MACHINE VISION COMPUTER

VCO-6000-RPL-4E

Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3 PCIe



Features

- LGA 1700 socket for 12/13/14th Gen. Intel® ADL & RPL Processor (65W/35W TDP)
- Intel® R680E chipset
- 2x DDR5 4800/5600MHz SODIMM. Max. up to 64GB
- Triple Independent Display: 2x DisplayPort, 1x DVI-I
- 2x Intel® 2.5GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe (1x shared by 1x mSATA), 2x SIM socket
- 2x 2.5" SATA HDD Bay (1x Internal) and with RAID 0, 1 support
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 6x RS-232/422/485 (4x internal), 4x USB 3.2 Gen 2, 5x USB 3.2 Gen 1 (internal)
- 8x DI + 8x DO with isolation
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -25°C to 70°C (35W CPU); -25°C to 60°C (65W CPU)
- TPM 2.0 Supported

Specifications

System		Card Dimension	310 (L) x 112 (H) mm
Processor		I/O	
Support 12/13/14th(Non-vPRO) Gen Intel® ADL & RPL Processor (LGA 1700, 65W/35W TDP)		COM	2x RS-232/422/485 ; 4x RS-232/422/485 (internal)
- Intel® Core™ i9-14900/i9-13900E/i9-12900E, 65W		DIO	8 in / 8 out (Isolated)
- Intel® Core™ i9-14900T/i9-13900TE/i9-12900TE, 35W		LAN	2x RJ45
- Intel® Core™ i7-14700/i7-13700E/i7-12700E, 65W		Universal I/O Bracket	2x Universal I/O Bracket (By mini PCIe interface)
- Intel® Core™ i7-14700T/i7-13700TE/i7-12700TE, 35W		USB	4x USB 3.2 Gen 2 (10 Gbps) 5x USB 3.2 Gen 1 (5 Gbps, Internal) 1x USB 3.2 Gen 1 header (5 Gbps, internal)
- Intel® Core™ i5-14500/i5-13500E/i5-12500E, 65 W		Others	4x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch, 1x Remote Power On/Off 1x PC/Car Mode Switch, 1x Delay Time Switch 1x Removable CMOS Battery (internal) 1x 6CM FAN Module (Optional)
- Intel® Core™ i5-14500T/i5-13500TE/i5-12500TE, 35W		Operating System	
- Intel® Core™ i3-13100E/i3-12100E, 60W		Windows	Windows 10/11
- Intel® Core™ i3-14100T/i3-13100TE/i3-12100TE, 35W		Linux	Linux kernel
- Intel® Core™ 300T, 35W		Power	
- Intel® Pentium® G7400E, 46W / G7400TE, 35W		Power Adapter	Optional AC/DC 24V/9.2A, 220W Optional AC/DC 24V/11.67A, 280W (for more advanced CPU or as second power supply for GPU/Card Expansion) Optional AC/DC 24V/15A, 360W (for more advanced i7/i9 CPU)
- Intel® Celeron® G6900E, 46W / G6900TE, 35W		Power Mode	AT, ATX
System Chipset	Intel® R680E Express Chipset	Power Ignition Sensing	Power Ignition Management
LAN Chipset	2.5 GbE1: Intel I226, 2.5 GbE2: Intel I226, Support Wake-on-LAN and PXE, Support TSN	Power Supply Voltage	9~48VDC • VCO-6000-RPL-4E-2PWR (optional) : 12~48VDC (Optional, For GPU/Card Expansion)
Audio Codec	Realtek ALC888S	Power Connector	5-pin Terminal Block 4-pin Terminal Block (optional second power supply)
System Memory	2x 262-Pin DDR5 4800/5600MHz SODIMM. Max. up to 64GB (ECC and Non-ECC)	Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection
Graphics	Intel® UHD Graphics 770/710	Environment	
BIOS	AMI 256Mbit SPI BIOS	Operating Temperature	-25°C to 70°C (35W CPU) -25°C to 60°C (65W CPU)
Watchdog	Software Programmable Supports 1~255 sec. System Reset	Storage Temperature	-30°C to 85°C
TPM	TPM 2.0	Relative Humidity	10% to 95% (non-condensing)
Display		Certification	UL 62368 Ed. 3, CE, FCC Class A
Display Port	2x DisplayPort, Support resolution 5120 x 3200, Up to 7680 x 4320	Vibration	IEC60068-2-64:2008 With HDD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 3 Grms (5 - 500 Hz, 0.5 hr/axis) Designed to comply with MIL-STD-810G Method 514.7 Procedure I
DVI	1x DVI-I, support resolution 1920 x 1200	Shock	IEC60068-2-27:2008 With SSD: 20G half-sin 11ms Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Multiple Display	Triple Display	Physical	
VGA	Yes (by optional split cable)	Dimensions	177 (W) x 340 (D) x 240 (H) mm
Storage		Weights	9.7 KG
M.2	1x M.2 B Key, 2242/3042/3052 (PCIe x2, Support AI Module/NVMe Storage) (PCIe x1 & USB 3.2 Gen1, Support 4G/5G)	Construction	Extruded Aluminum with Heavy Duty Metal
mSATA	1x mSATA (Shared by 1x Mini PCI Express)	Mounting Options	Wall Mounting
SIM Socket	2x Internal SIM socket (Mini PCIe/M.2 B Key attached)		
SSD/HDD	1x Internal 2.5" SATA/SSD HDD Bay (support H=9mm) 1x Removable 2.5" SATA HDD Bay (support H=7mm, Hot-swappable) Support RAID 0, 1 optional: 4B7M: 4x Removable 2.5" SATA HDD Bay (support H=7mm, Hot-swappable, Optional) Support RAID 0, 1, 5, 10 2B15M: 2x Removable 2.5" SATA HDD Bay (support H=15mm, Hot-swappable, Optional) Support RAID 0, 1, 5, 10 2N15M: 2x Removable 2.5" U.2 NVMe Bay (support H=15mm, Hot-swappable, Optional) Support RAID 0, 1		
Expansion			
Mini PCIe	1x Full-size Mini PCIe (1x shared by 1x mSATA)		
PCIe	2x PCIe x16 Slot (x8 Lane, Gen 4) 1x PCIe x4 (x1 Lane, Gen 3)		

* For 12/13/14th Gen Intel CPUs configured to run at 65W, operating temperatures will be limited to 60°C.

* 65W CPUS may experience thermal throttling depending on extreme application workloads; this is also due to an increase in the physical CPU cores from the Intel silicon (up to 24 cores). Please note, this does not indicate system malfunction or problems in the fanless design. Please consult our embedded engineers for the best configuration to match your application requirements.

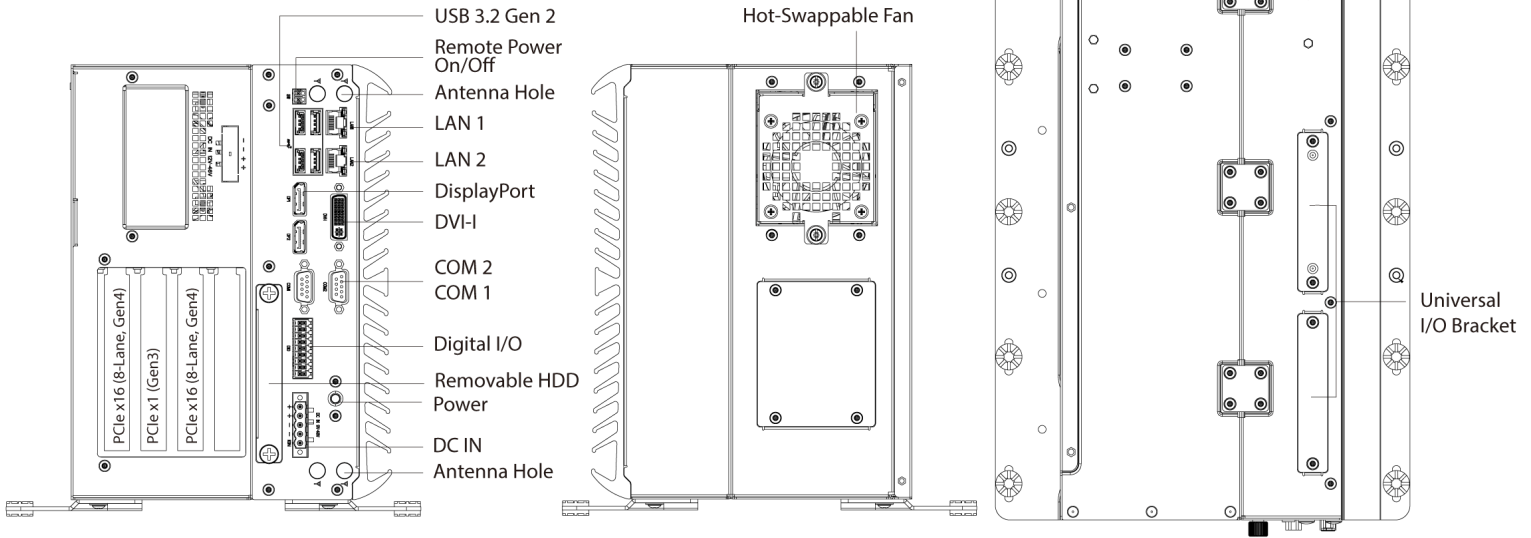
* All specifications and photos are subject to change without notice.

External I/O Mechanical Layout

Front Panel

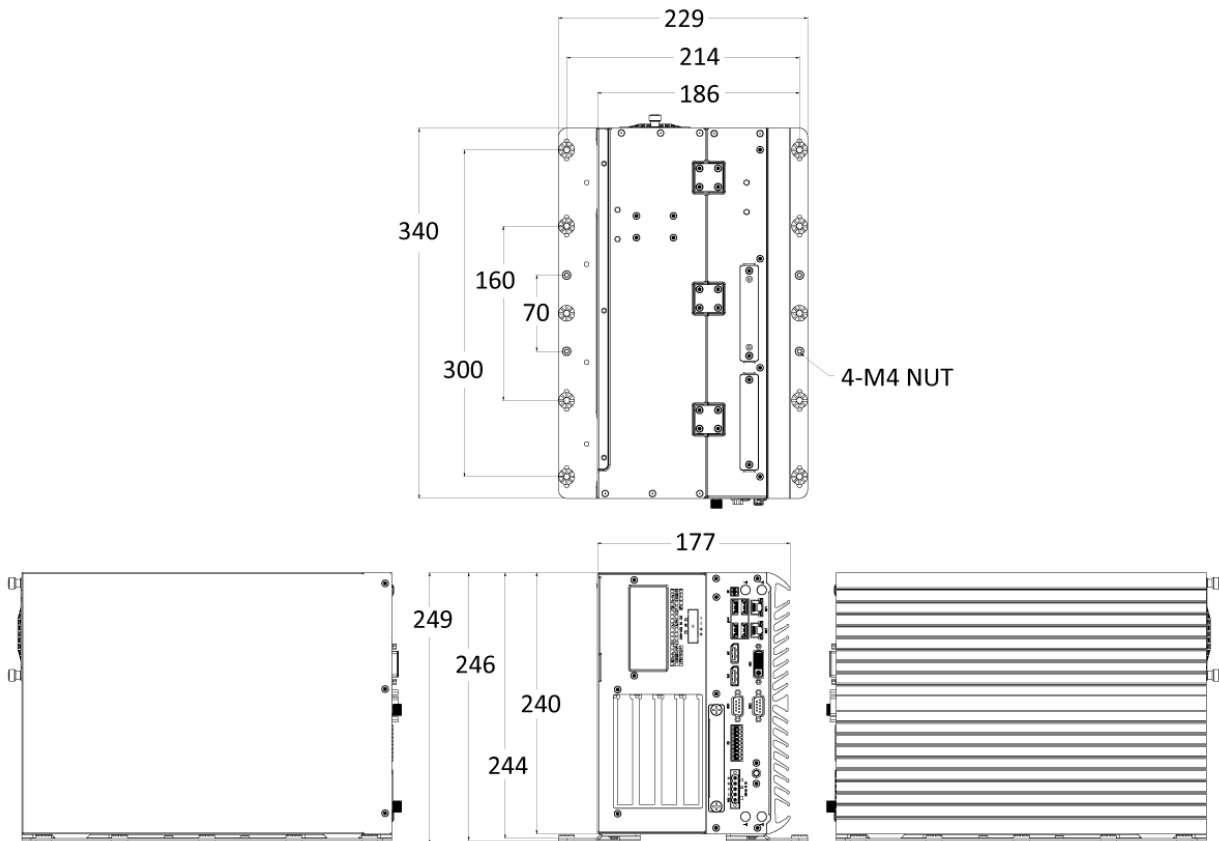
Rear Panel

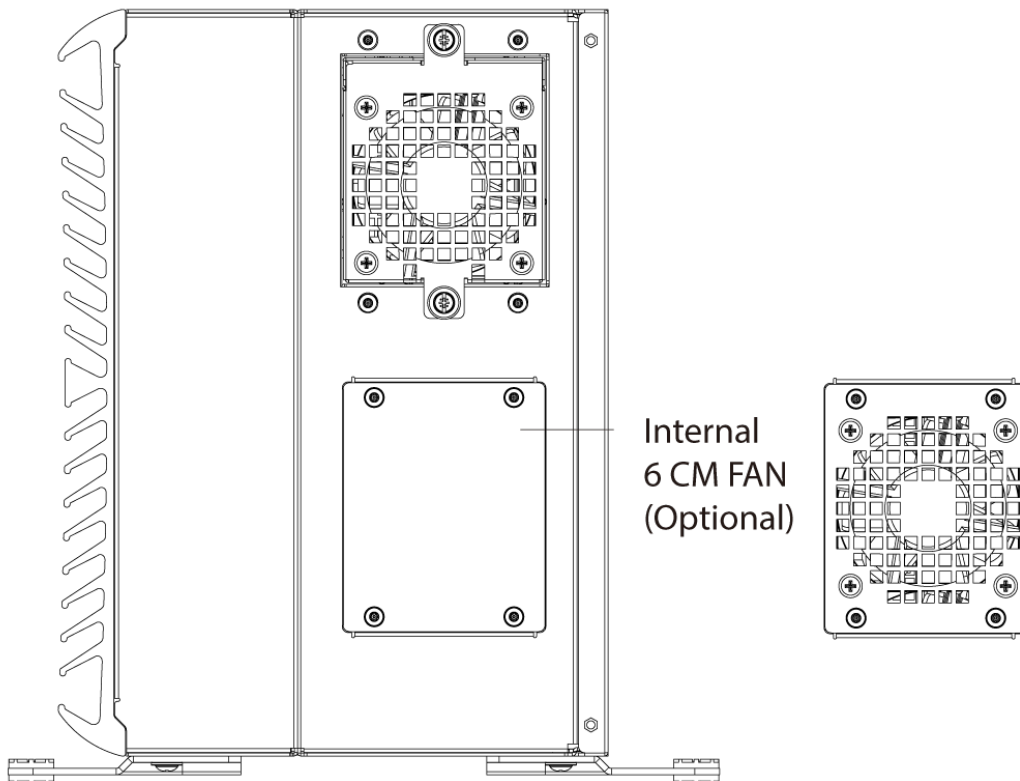
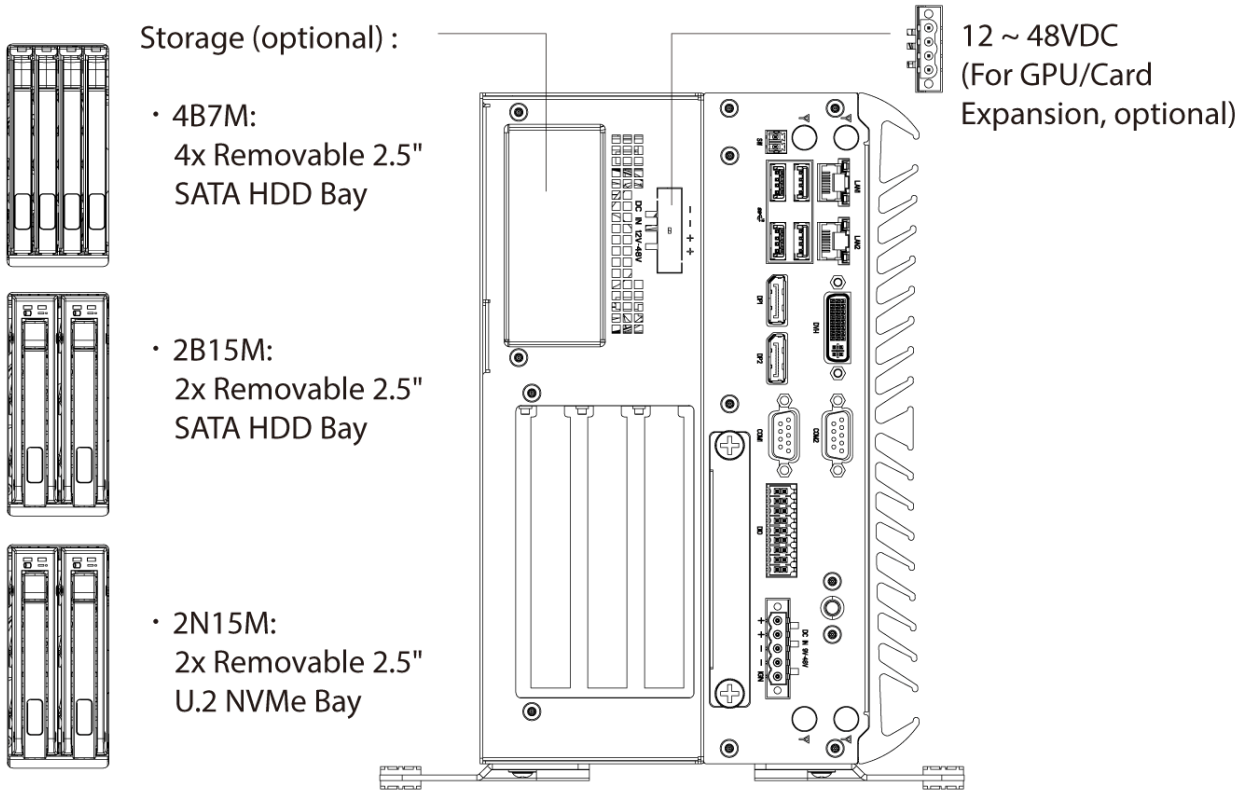
Top Panel



Dimension

Unit: mm





Available Models

Model No.	Description
VCO-6000-RPL-4E	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe
VCO-6000-RPL-4E-4B7M	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe, 6x HDD
VCO-6000-RPL-4E-2B15M	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe, 4x HDD
VCO-6000-RPL-4E-2N15M	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe, 2x 15mm NVMe
VCO-6000-RPL-4E-2PWR	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe, 2x Power input
VCO-6000-RPL-4E-4B7M-2PWR	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe, 6x HDD, 2x Power input
VCO-6000-RPL-4E-2B15M-2PWR	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe, 4x HDD, 2x Power input
VCO-6000-RPL-4E-2N15M-2PWR	Machine Vision Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 3x PCIe, 2x 15mm NVMe, 2x Power input

Optional Accessories

Model No.	Description
1-E09A22102	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A22801	Adapter AC/DC 24V/11.67A 280W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A36001	Adapter AC/DC 24V/15A 360W with 3pin Terminal Block Plug 5.0mm Pitch
SFICBL022	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm
3-RC6300EXFAN	External Double FAN KIT

Packing List

1x VCO-6000-RPL-4E Series Embedded System
1x Wall Mount Kit
1x Accessory Kit
1x DVI to VGA Adapter