



MACHINE VISION COMPUTER

# VCO-6000-KBL-2-2PWR

Machine Vision Computer with 6th/7th Gen Intel® Core™ Processor, Supports up to RTX 2060 Super GPU



## Features

- Support 6th & 7th Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151)
- Intel® Q170 chipset
- 2x DDR4 SODIMM, max up to 32GB
- Triple independent display supported by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x 2.5" SATA HDD Bay supporting RAID 0, 1, 5, 10; 2x mSATA (shared by 2x Mini PCIe), 1x CFast
- 3x full-size Mini PCIe for communication or expansion modules
- 4x RS-232/422/485 (w/ 2x internal), 4x USB 3.0, TPM 1.2
- 1x PCIe x16 and 1x PCI expansion
- 8x DI + 8x DO with isolation
- 9 to 50VDC wide range power input supporting AT/ATX mode
- -25°C to 70°C extended operating temperature

## Specifications

System	
Processor	Support 6th & 7th Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151) - 7th Gen Intel® Core™ i7-7700T, Quad Core, 8MB cache, up to 3.8 GHz - 7th Gen Intel® Core™ i5-7500T, Quad Core, 6MB cache, up to 3.3 GHz - 7th Gen Intel® Core™ i3-7100T, Dual Core, 3MB Cache, 3.4 GHz - 6th Gen Intel® Core™ i7-6700TE, Quad Core, 8MB cache, up to 3.4 GHz - 6th Gen Intel® Core™ i5-6500TE, Quad Core, 6MB Cache, up to 3.3 GHz - 6th Gen Intel® Core™ i3-6100TE, Dual Core, 4MB Cache, 2.7 GHz - Intel® Pentium® G4400TE, Dual Core, 3MB Cache, 2.4 GHz - Intel® Celeron® G3900TE, Dual Core, 2MB Cache, 2.3 GHz
System Chipset	Intel® Q170 Express Chipset
LAN Chipset	<ul style="list-style-type: none"> <li>• GbE1: Intel® I210-AT (Support Wake-on-LAN and PXE)</li> <li>• GbE2: Intel® I219LM (Support Wake-on-LAN and PXE)</li> </ul>
Audio Codec	Realtek ALC888S
System Memory	2 x 240-pin DDR4 SO-DIMM sockets 1866/2133 MT/s, Non-ECC, unbuffered SDRAM Max. 32GB
Graphics	Intel® HD Graphics 530 / 630 Nvidia RTX 2060 Super Mini
BIOS	AMI 128Mbit SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 1.2
Display	
Display Port	2x DP
DVI	1x DVI-I
Multiple Display	Triple Display
Storage	
CFast	1x CFast
mSATA	2x mSATA (shared by 2x Mini PCIe)
SSD/HDD	2x Hotswap 2.5" SATA HDD Bay Support RAID 0, 1, 5, 10
Expansion	
Mini PCIe	3x Full-size Mini PCIe
PCI	1x PCI
PCIe	1x PCIe x16
I/O	
Audio	1x Mic-in, 1x Line-out
COM	2x RS-232/422/485 2x RS-232/422/485 (Internal)
DIO	8 in / 8 out (Isolated)
LAN	2x GbE RJ45
USB	4x USB 3.0
Others	2x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch
Operating System	
Windows	6th Gen CPU: Windows 10, Windows 7, WES7 7th Gen CPU: Windows 10
Linux	Linux kernel 4.X
Power	
Power Adapter	Optional AC/DC 24V/9.2A, 220W

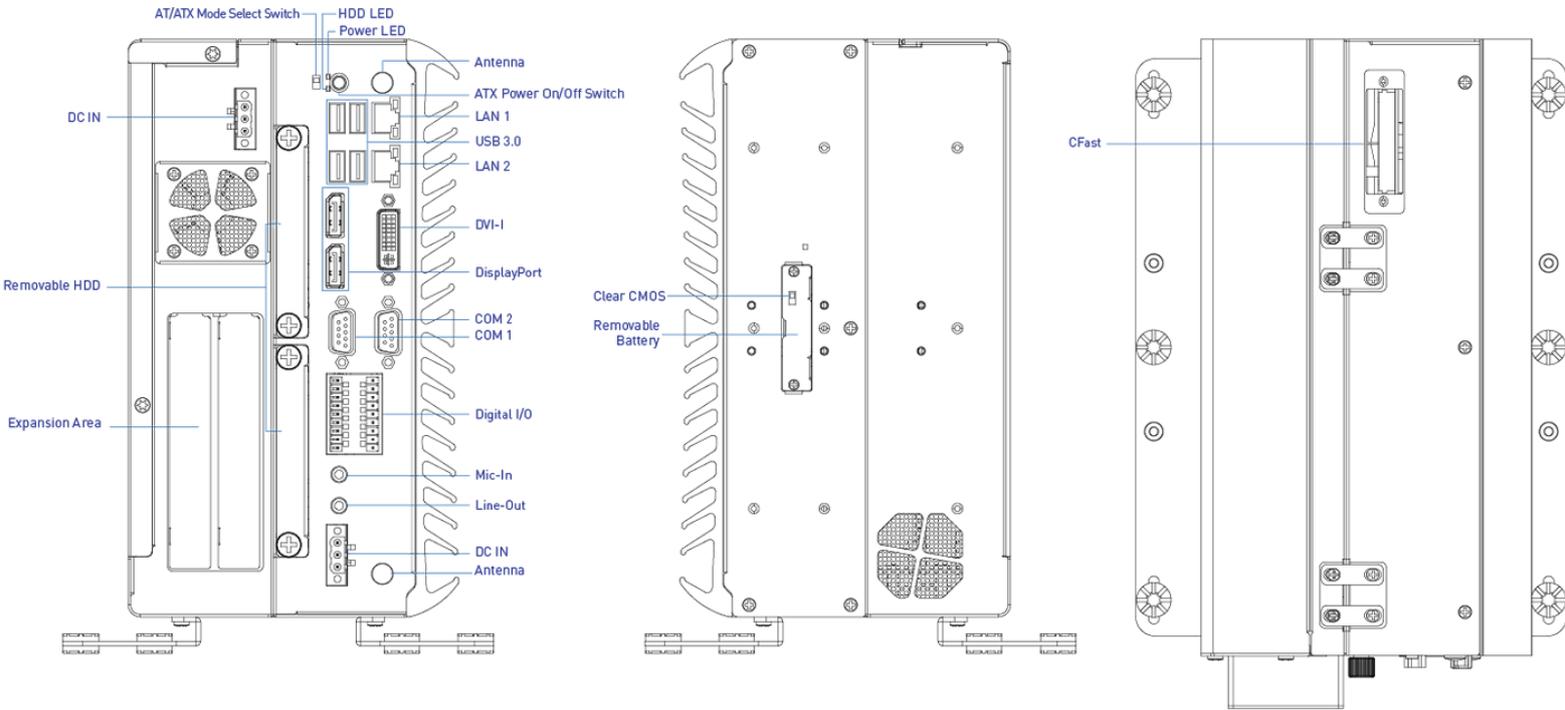
Power Mode	AT/ATX
Power Supply Voltage	System: 9-50VDC GPU: 24VDC
Power Connector	3-pin Terminal Block
Power Protection	Over-Voltage Protection (OVP) Over-Current Protection (OCP) Reverse Polarity Protection (RPP)
Environment	
Operating Temperature	-25°C to 70°C
Storage Temperature	-40°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Certification	CE, FCC Class A
Vibration	with SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis with HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis
Shock	with SSD: 50G, half sine, 11ms
Physical	
Dimensions	137(W) x 256(D) x 240(H) mm
Construction	Extruded aluminum with heavy duty metal
Mounting Options	Wall Mount / Book Mount DIN-Rail Mounting (optional)

External I/O Mechanical Layout

Front Panel

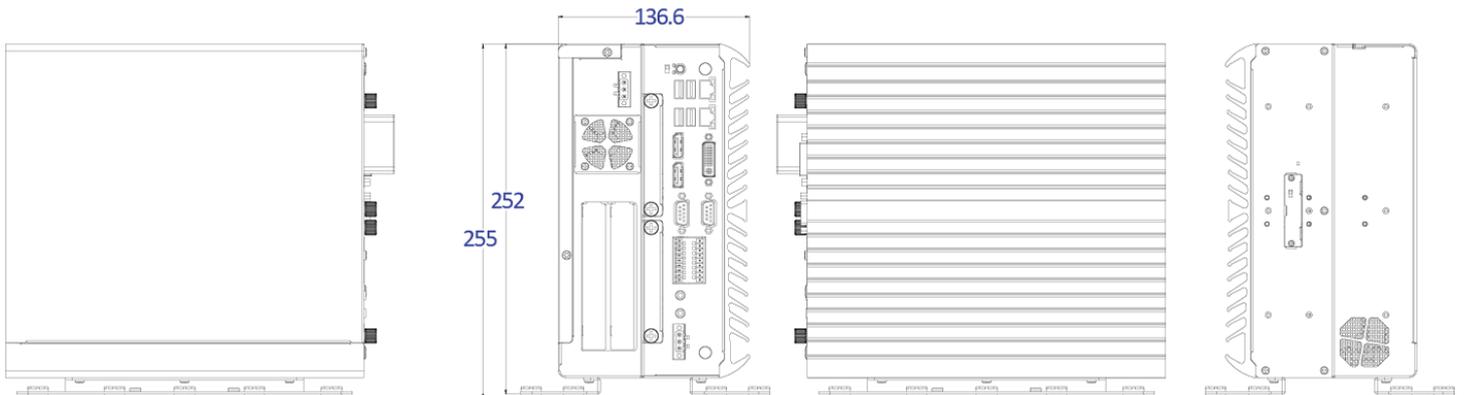
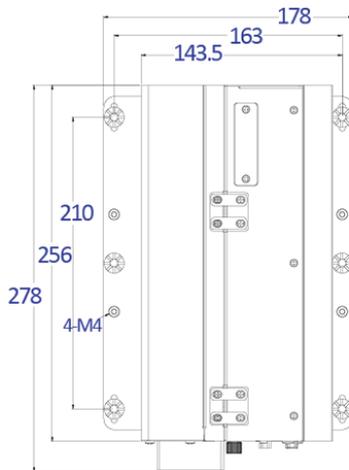
Rear Panel

Top View



Dimension

Unit: mm



## Available Models

Model No.	Description
VCO-6000-KBL-2C-2PWR-P	Machine Vision Computer with 6th/7th Gen Intel® Core™ Processor, Supports up to RTX 2060 Super GPU

## Optional Accessories

Model No.	Description
1-E09A22801	Adapter AC/DC 24V/11.67A 280W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A22102	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug 5.0mm Pitch
999930	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

## Packing List

- 1x VCO-6000-KBL-2-2PWR
- 1x Utility DVD Driver
- 1x Wall Mount Kit
- 1x Accessory Kit

## Compliances and Standards

Shock	with SSD: 50G, half sine, 11ms  IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Vibration	with SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis  with HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Operating Temperature	-25°C to 70°C  IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMI	<ul style="list-style-type: none"> <li>• FCC Class A (47 CFR part 15.109 and part 15.107)</li> <li>• CE</li> <li>• ICES-003</li> <li>• UKCA</li> </ul>

## Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71