

Superior Machine Vision System with LGA 1151 for Intel® 6<sup>th</sup>/7<sup>th</sup> Gen Processor and Q170 PCH, 1x PCIe x16



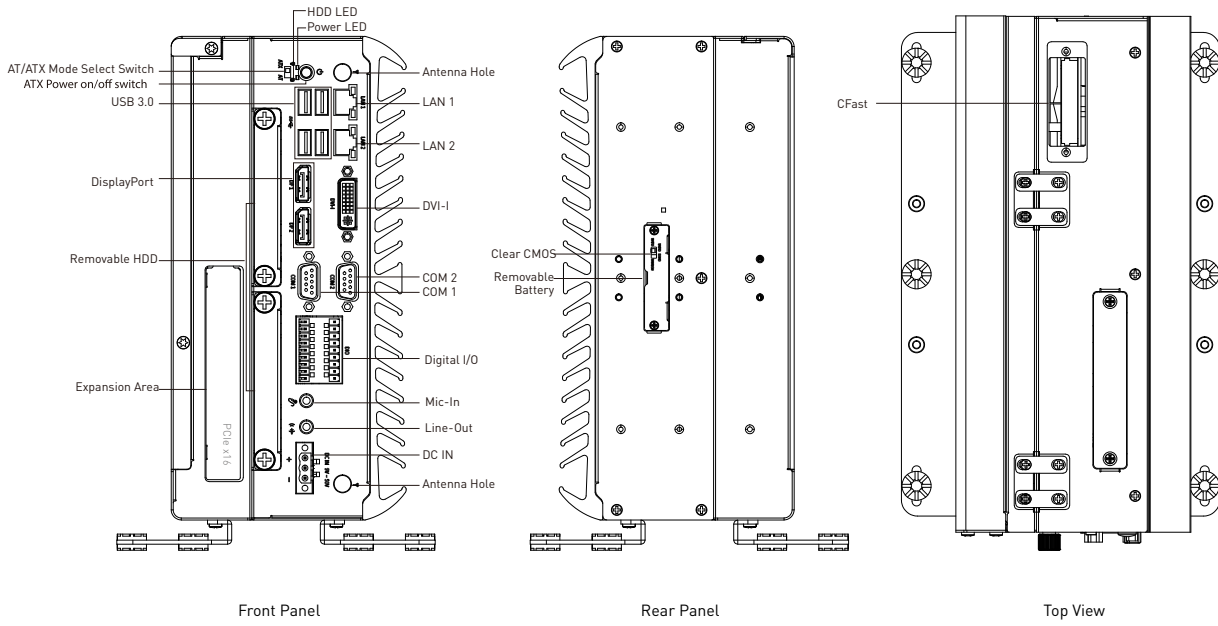
## FEATURES

- LGA 1151 socket for 6<sup>th</sup>/7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- 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, 2x mSATA (shared by 2x mini PCIe), and 1x CFast supporting RAID 0, 1, 5, 10
- 3x full-size mini PCIe for communication or expansion modules
- 4x RS-232/422/485 (w/ 2x internal), 4x USB 3.0, TPM 2.0
- 1x PCIe x16 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

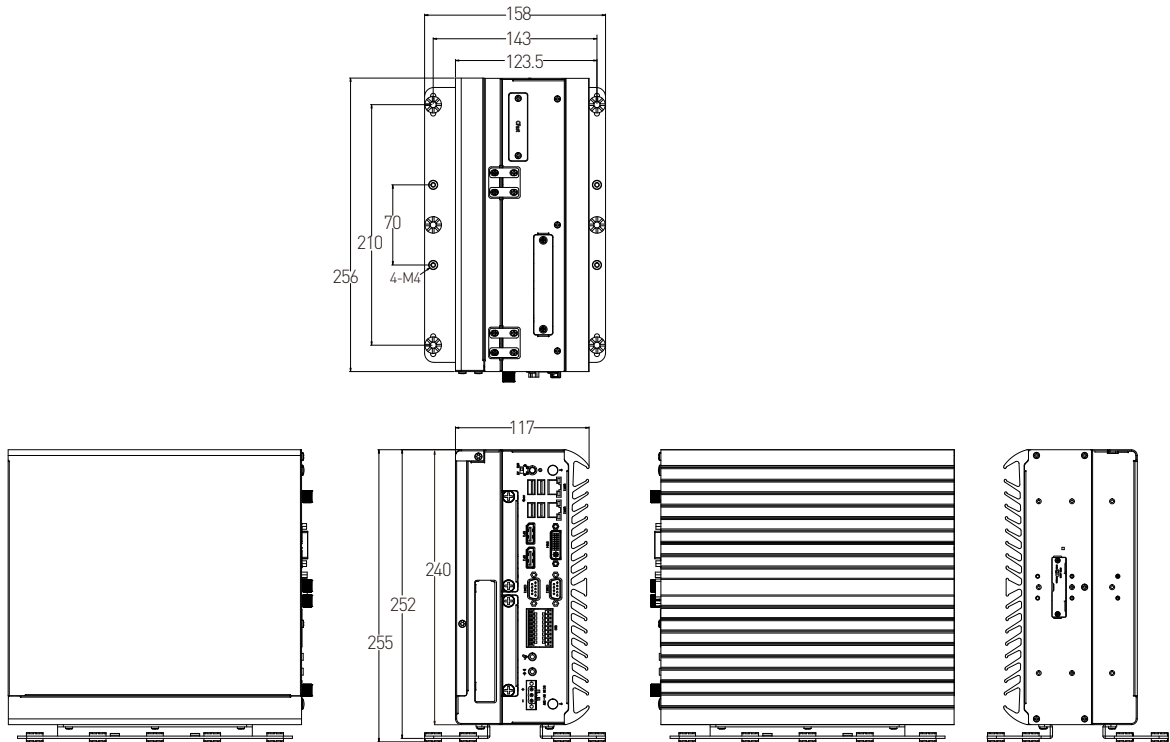
System		I/O	
Processor	Support 6 <sup>th</sup> & 7 <sup>th</sup> Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151)	COM	2x RS-232/422/485 2x RS-232/422/485 (Internal)
	<ul style="list-style-type: none"> <li>- 7<sup>th</sup> Gen Intel® Core™ i7-7700T, Quad Core, 8MB cache, up to 3.8 GHz</li> <li>- 7<sup>th</sup> Gen Intel® Core™ i5-7500T, Quad Core, 6MB cache, up to 3.3 GHz</li> <li>- 7<sup>th</sup> Gen Intel® Core™ i3-7101TE, Dual Core, 3MB Cache, 3.4 GHz</li> <li>- 6<sup>th</sup> Gen Intel® Core™ i7-6700TE, Quad Core, 8MB cache, up to 3.4 GHz</li> <li>- 6<sup>th</sup> Gen Intel® Core™ i5-6500TE, Quad Core, 6MB Cache, up to 3.3 GHz</li> <li>- 6<sup>th</sup> Gen Intel® Core™ i3-6100TE, Dual Core, 4MB Cache, 2.7 GHz</li> <li>- Intel® Pentium® G4400TE, Dual Core, 3MB Cache, 2.4 GHz</li> <li>- Intel® Celeron® G3900TE, Dual Core, 2MB Cache, 2.3 GHz</li> </ul>	USB	4x USB 3.0
System Chipset	Intel® Q170 Express Chipset	LAN	2x RJ45
LAN Chipset	GbE1: Intel® I210-AT (Support Wake-on-LAN and PXE) GbE2: Intel® I219LM (Support Wake-on-LAN and PXE)	Audio	1x Mic-in, 1x Speaker-out
Audio Codec	Realtek ALC888S	DIO	8 in / 8 out (Isolated)
System Memory	2x DDR4 1866/2133MHz SODIMM. Max. up to 32GB	Universal I/O Bracket	1x Universal I/O Bracket (By mini PCIe interface)
BIOS	AMI 128Mbit SPI BIOS	Others	2x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch
Watchdog	Software Programmable Supports 1~255 sec. System Reset	<b>Operating System</b>	
TPM	TPM 2.0	Windows	6 <sup>th</sup> Gen CPU: Windows 10, Windows 7, WES7 7 <sup>th</sup> Gen CPU: Windows 10
<b>Display</b>		Linux	Linux kernel 4.X
DVI	1x DVI-I	<b>Power</b>	
DisplayPort	2x DisplayPort	Power Mode	AT, ATX
Multiple Display	Triple Display	Power Supply Voltage	9~50VDC
<b>Storage</b>		Power Connector	3-pin Terminal Block
SSD/HDD	2x Removable 2.5" SATA HDD Bay Support RAID 0, 1, 5, 10	Power Adaptor	Optional AC/DC 24V/5A, 120W
mSATA	2x mSATA (shared by 2x Mini PCI Express)	Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection
CFast	1x CFast	<b>Environment</b>	
<b>Expansion</b>		Operating Temp.	-25°C to 70°C
Mini PCI Express	3x Full-size Mini PCIe (shared by 2x mSATA)	Storage Temp.	-40°C to 85°C
PCI Express	1x PCIe x16	Relative Humidity	10% to 95% (non-condensing)
Card Dimension	235 (L) x 112 (H) mm	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
		Standards / Certification	CE, FCC Class A
		<b>Physical</b>	
		Construction	Extruded Aluminum with Heavy Duty Metal
		Dimension	117 (W) x 256 (D) x 240 (H) mm
		Weight	5.29 kg
		Mounting	Wall / Book Mounting DIN-Rail Mounting (Optional)

## EXTERNAL I/O MECHANICAL LAYOUT



## DIMENSION

Unit: mm



## ORDERING INFORMATION

MODEL NO.	DESCRIPTION
1-E09A12002	Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug 5.0mm Pitch
SFICBL022	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

## PACKING LIST

- 1x VCO-6000 Series Embedded System
- 1x Utility DVD Driver
- 1x Wall Mount Kit
- 1x Accessory Kit

## AVAILABLE MODELS

MODEL NO.	DESCRIPTION
VCO-6011E	Superior Machine Vision System with LGA 1151 for Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen Processor and Q170 PCH, 1x PCIe x16

Superior Machine Vision System with LGA 1151 for Intel® 6<sup>th</sup>/7<sup>th</sup> Gen Processor and Q170 PCH, 1x PCI



## FEATURES

- LGA 1151 socket for 6<sup>th</sup>/7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Intel® Q170 chipset
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- Triple independent display supported by 1x DVI-I and 2x DisplayPort
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## SPECIFICATIONS

### System

Processor  
Support 6<sup>th</sup> & 7<sup>th</sup> Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151)

- 7<sup>th</sup> Gen Intel® Core™ i7-7700T, Quad Core, 8MB cache, up to 3.8 GHz
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Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0

### Display

DVI	1x DVI-I
DisplayPort	2x DisplayPort
Multiple Display	Triple Display

### Storage

SSD/HDD	2x Removable 2.5" SATA HDD Bay Support RAID 0, 1, 5, 10
mSATA	2x mSATA (shared by 2x Mini PCI Express)
CFast	1x CFast

### Expansion

Mini PCI Express	3x Full-size Mini PCIe (shared by 2x mSATA)
PCI	1x PCI
Card Dimension	235 (L) x 112 (H) mm

### I/O

COM	2x RS-232/422/485 2x RS-232/422/485 (Internal)
USB	4x USB 3.0
LAN	2x RJ45
Audio	1x Mic-in, 1x Speaker-out
DIO	8 in / 8 out (Isolated)
Universal I/O Bracket	1x Universal I/O Bracket (By mini PCIe interface)
Others	2x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch

### Operating System

Windows	6 <sup>th</sup> Gen CPU: Windows 10, Windows 7, WES7 7 <sup>th</sup> Gen CPU: Windows 10
Linux	Linux kernel 4.X

### Power

Power Mode	AT, ATX
Power Supply Voltage	9~50VDC
Power Connector	3-pin Terminal Block
Power Adaptor	Optional AC/DC 24V/5A, 120W
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection

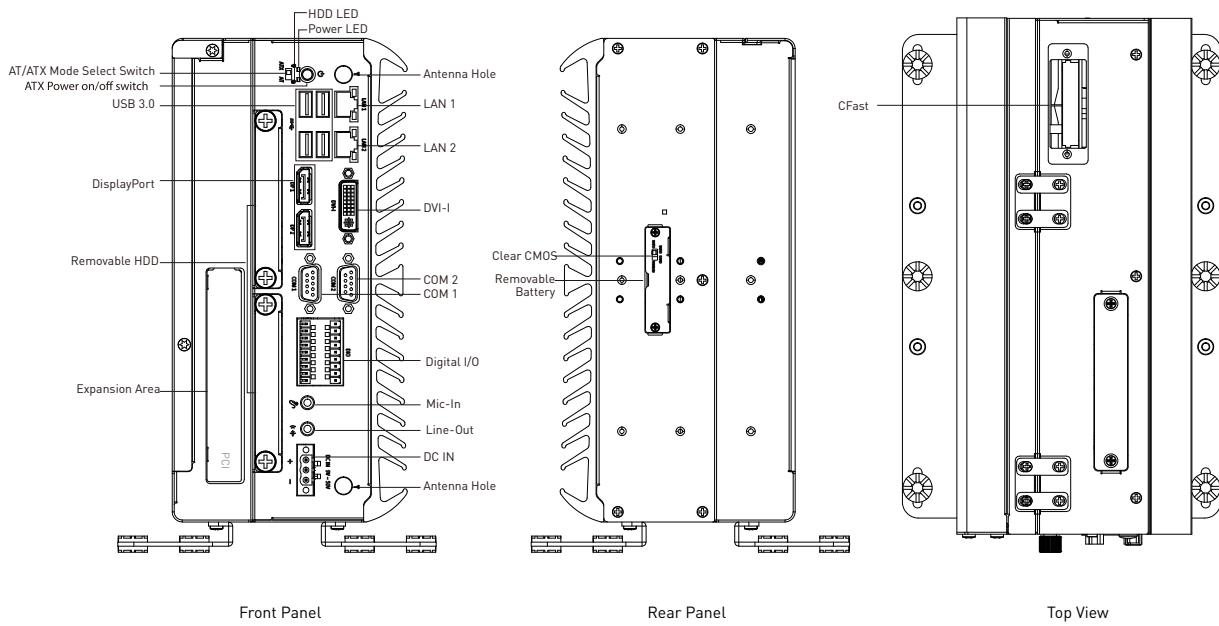
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Shock	With SSD: 50G, half sine, 11ms
Standards / Certification	CE, FCC Class A

### Physical

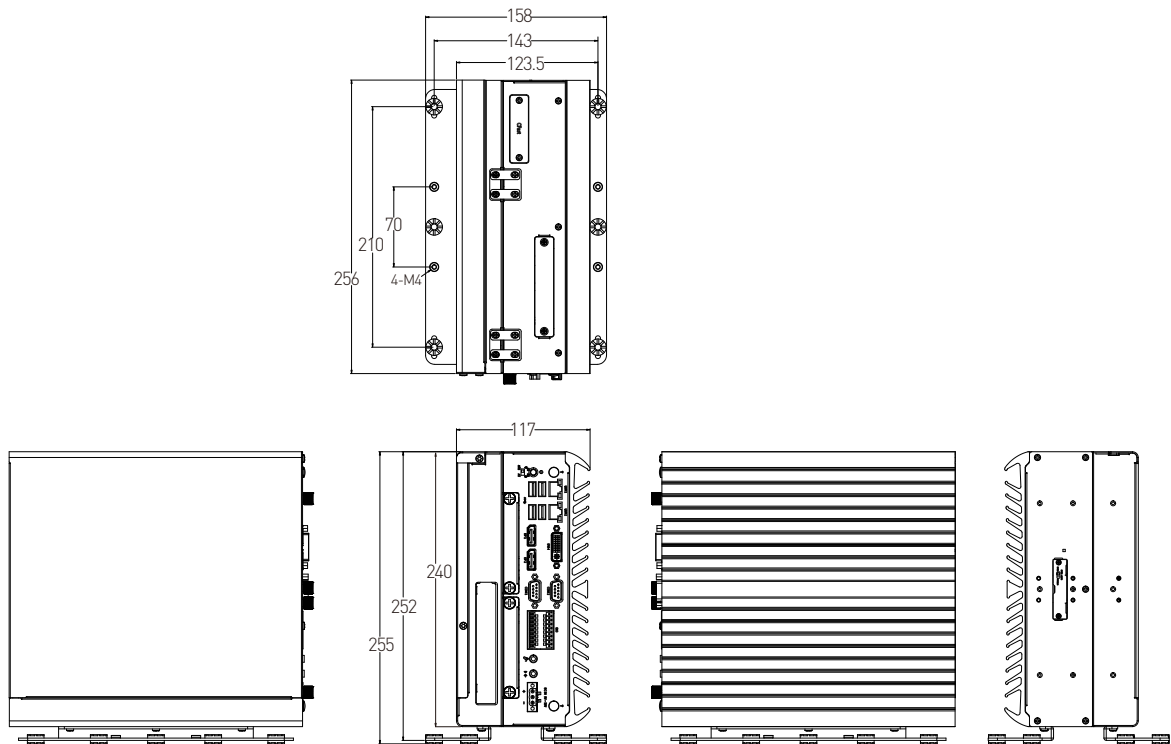
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