

# VCO-6055C series

Superior Machine Vision System with LGA 1151 for Intel® 6<sup>th</sup>/7<sup>th</sup> Gen Processor and Q170 PCH, 2x PCIe x4, 1x PCIe x8, 2xPCI

## FEATURES

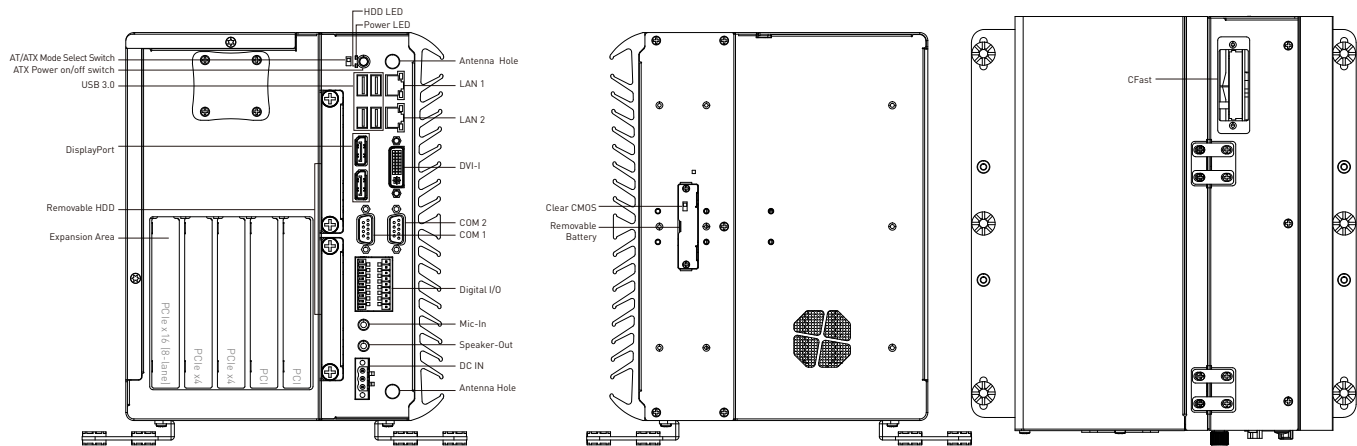
- LGA 1151 socket for 6<sup>th</sup>/7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Intel® Q170 chipset
- 2x DDR4 SODIMM. max up to 32GB
- Triple independent display supported by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x 2.5" 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
- 2x PCIe x4, 1x PCIe x8, and 2x 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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                            |                           |                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------|
| <b>System</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                            | <b>I/O</b>                |                                                                                             |
| 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<br>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)<br>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                                                                               | Others                    | 2x WiFi Antenna Holes<br>1x Power Switch, 1x AT/ATX Switch                                  |
| BIOS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AMI 128Mbit SPI BIOS                                                                                                       | <b>Operating System</b>   |                                                                                             |
| Watchdog                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Software Programmable Supports 1~255 sec. System Reset                                                                     | Windows                   | 6 <sup>th</sup> Gen CPU: Windows 10, Windows 7, WES7<br>7 <sup>th</sup> Gen CPU: Windows 10 |
| TPM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | TPM 2.0                                                                                                                    | Linux                     | Linux kernel 4.X                                                                            |
| <b>Display</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                            | <b>Power</b>              |                                                                                             |
| VGA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yes (by optional split cable)                                                                                              | Power Mode                | AT, ATX                                                                                     |
| DVI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1x DVI-I                                                                                                                   | Power Supply Voltage      | 9~50VDC                                                                                     |
| DisplayPort                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2x DisplayPort                                                                                                             | Power Connector           | 3-pin Terminal Block                                                                        |
| Multiple Display                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Triple Display                                                                                                             | Power Adaptor             | Optional AC/DC 24V/5A, 120W                                                                 |
| <b>Storage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                            | Power Protection          | OVP (Over Voltage Protection)<br>OCP (Over Current Protection)<br>Reverse Protection        |
| SSD/HDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2x Removable 2.5" SATA HDD Bay<br>Support RAID 0, 1, 5, 10                                                                 | <b>Environment</b>        |                                                                                             |
| mSATA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2x mSATA (shared by 2x Mini PCI Express)                                                                                   | Operating Temp.           | -25°C to 70°C                                                                               |
| CFast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1x CFast                                                                                                                   | Storage Temp.             | -40°C to 85°C                                                                               |
| <b>Expansion</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                            | Relative Humidity         | 10% to 95% (non-condensing)                                                                 |
| Mini PCI Express                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3x Full-size Mini PCIe (shared by 2x mSATA)                                                                                | Vibration                 | With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis<br>With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis      |
| PCI Express                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2x PCIe x4, 1x PCIe x16 [8-lane]                                                                                           | Shock                     | With SSD: 50G, half sine, 11ms                                                              |
| PCI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2x PCI                                                                                                                     | Standards / Certification | CE, FCC Class A                                                                             |
| Card Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 235 (L) x 112 (H) mm                                                                                                       | <b>Physical</b>           |                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                            | Construction              | Extruded Aluminum with Heavy Duty Metal                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                            | Dimension                 | 197 (W) x 256 (D) x 240 (H) mm                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                            | Weight                    | 6.21 kg                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                            | Mounting                  | Wall / Book Mounting<br>DIN-Rail Mounting (Optional)                                        |

## EXTERNAL I/O MECHANICAL LAYOUT



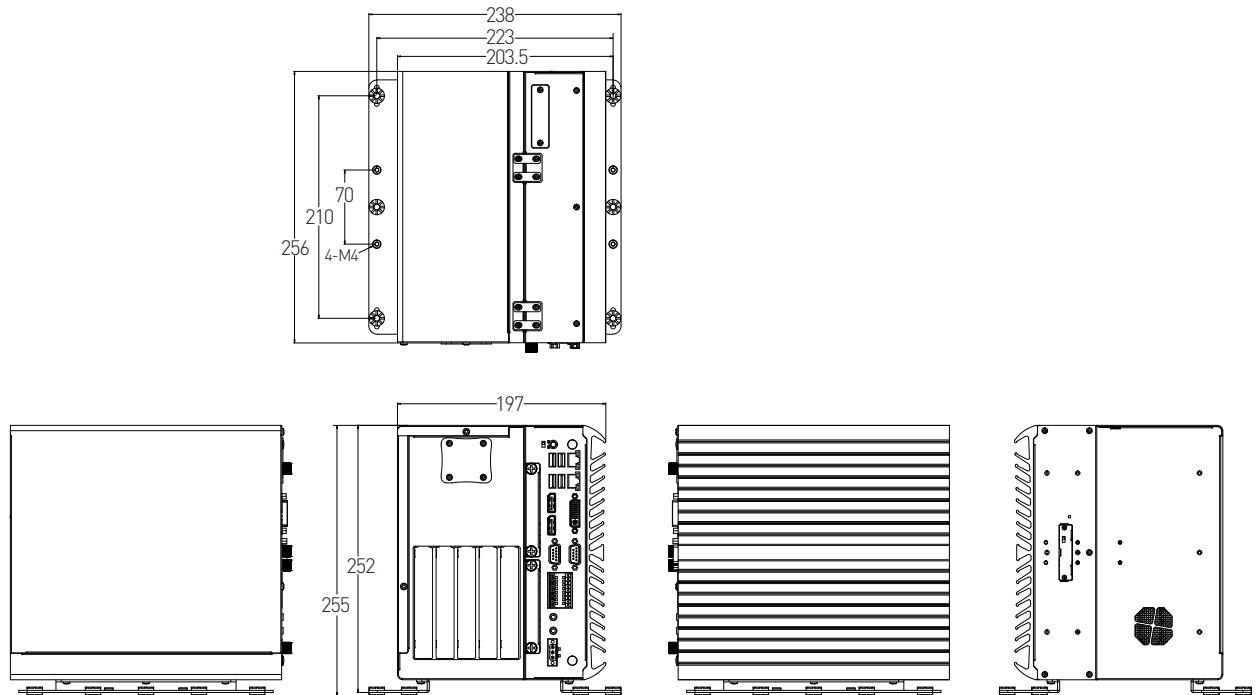
Front Panel

Top View

Rear Panel

## 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
- 1x DVI to VGA Adapter

## AVAILABLE MODELS

| MODEL NO. | DESCRIPTION                                                                                                                                         |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
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