

Reliable  
& Smart™

# MVC-1000/2000 Series

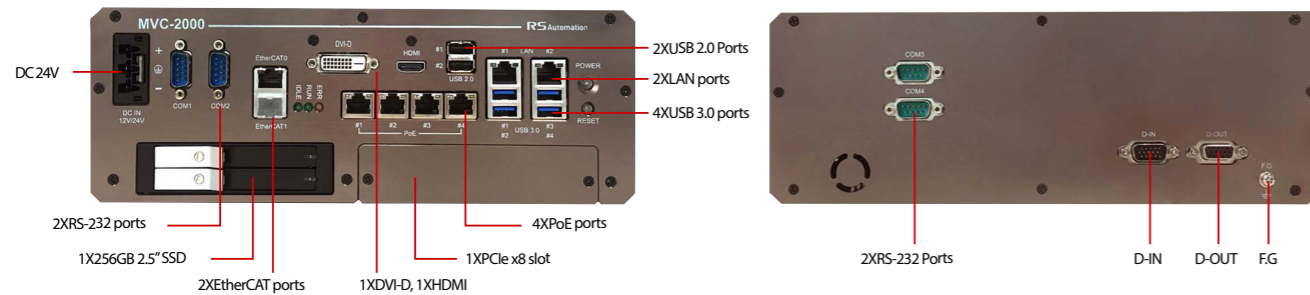
Motion & Vision Total Solution

All in One Compact Controller



# MVC Series

MVC Series is a compact sized **Motion & Vision controller** equipped with vision function of differentiated speed, applicable for any equipment flexibly and quickly as well as control of general equipment.



## EtherCAT Motion



- Built-in EtherCAT Motion Card (Hardware Type)
- Motion control up to 64 axes and I/O control of 5,440 points (Max. 128 axes and I/O control of 10,880 points)<sup>※1</sup>
- Support for the Standard of EtherCAT CoE and PLC Open Motion
- Introduced EtherCAT motion to several semiconductor and OLED equipment

## Machine Vision Specification



- 4 x GigE PoE port for vision only. 4 x USB3.0 port with 5Gbps each, 2 x USB2.0 port, Supports 10 vision cameras (Expandable through Hub)
- Available various kinds of vision solution such as Frametraver, CoaxPress, CC-Link and so on through the expansion slot of PCI Express x8

## Designed for User Convenience



- Decreased set-up time significantly by installing the MMCE Manager, OS, Driver, Digital I/O software and System Monitoring Tool together
- Integrated Intel® i7 CPU, motion controller, PoE, RS-232 function into one controller and the size is 30% smaller than general 19" IPC
- Enhanced the usability with the optimized design of Aluminum housing against heat and noise under the poor environment

## Integrated Technical Support



- Available integrated support utilized the expertise of RS Automation and YOI system for IPC, motion and vision

※1 Available with PCI Express 8x extended slot

## Model and Specification

Available to expand 16/64 axes motion and PoE port according to the customer's requirement.

### ■ MVC Series Model

**MVC1000 - P1604WN**

CPU	
1000	i5
2000	i7

Axes		POE	
16	16Axes	0	-
64	64Axes	4	4 Channel

- \* MVC1000\_P1604WN (i5, 16-axes Motion)
- \* MVC1000\_P6404WN (i5, 64-axes Motion)
- \* MVC2000\_P1644WN (i7, 16-axes Motion, PoE 4ch)
- \* MVC2000\_P6444WN (i7, 64-axes Motion, PoE 4ch)

### ■ MVC Series Specification

#### Motion Specification

- PLC Open Motion API
- 16/64 axes, 5,440 I/O points
- Position 1 msec / 64 axes
- EtherCAT 100Mbps Full Duplex
- Symmetric/Asymmetric Trapezoid, S-Curve, Spline Interpolation, Override, Touch Probe, Geared Motion, Linear Absolute, Linear Circular, Blending
- Built-in Motion Software

#### Vision Specification

- PoE Class3
  - IEEE802.3af Class3
  - 17W power supply each / 100M transmission
- USB 3.0
  - Apply individual Host Controller
  - Individual 5Gbps transmission

#### System Specification

- CPU
  - Intel® Mobile i7 4700EQ 3.4Ghz (MVC-2000 Series)
  - Intel® Mobile i5 4400E 3.3Ghz (MVC-1000 Series)
  - Intel® QM87 chipset
- EtherCAT Master Embedded
- Custom BIOS (COM-EX Type 6)
- Dual channel ECC DDR3L/SO-DIMMs 1333 16GB RAM
- 2 x 2.5" HDD/SDD bay (1 x 256GB 2.5" SSD)
- 1 x DVI-D (1920 x 1200 @ 60Hz), 1 x HDMI (3840 x 2160 @ 24Hz)
  - Support for Dual Display
- 2 x Giga Ethernet (I217, 82574L)
- <sup>※2</sup> 4 x PoE Class3
- 4 x USB 3.0, 2 x USB 2.0
- 1 x PCI Express x8 expansion slot
- 16ch. Isolation Digital I/O
- 4 x RS-232 Serial Ports (2-Front, 2-Rear)
- Input: DC+10V~+30V/3Pin Connector ATX Mode

#### Software

- Windows Embedded 7 Pro (64bit)
- Windows 10 IOT Enterprise (High End)
- MMCE Manager / Library, MMCE Device Driver
- Digital I/O Utility Program
- Customized Vision Software, System Monitoring Tool

#### Dimension and Weight

- Dimension: W 285mm x H 100mm x D 304.5mm, Weight: 6kg

#### Environmental Conditions

- 0°C(32°F) ~ 50°C(122°F) (10~90%, Under no condensation)
- CE/MSIP(KC) Class A: According to EN 61000-6-4:2007 +A1:2011, EN 61000-6-2:2005, EN 61000-3-2:2014, EN 61000-3-3:2013, KN61000-6-2, KN61000-6-4

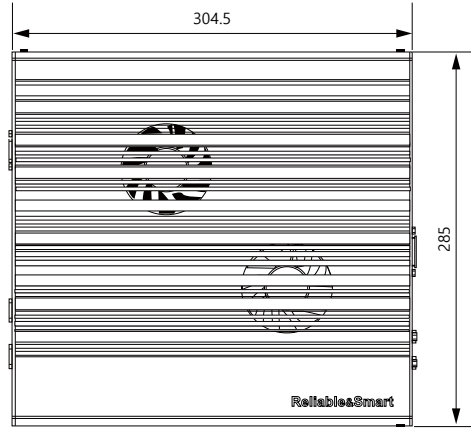
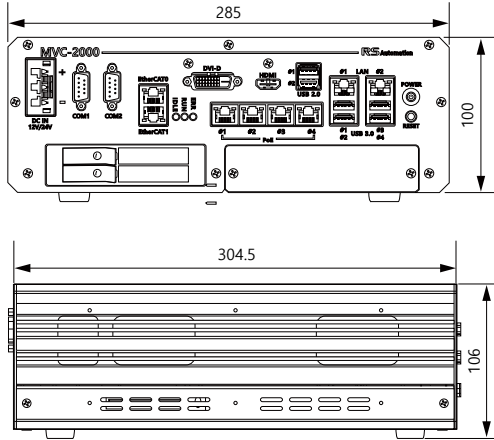
#### Applications

- Smart Factory
  - Large Logistic Line, Mobile/LCD Assembly Inspection
- Vision Inspector
- AOI/X-Ray Machine, Screen Printer, Laser Machine
- Automobiles/Home Appliances
- Compact Machine
  - Teeth Finishing Machine, PC CNC Machine, CCTV Controller

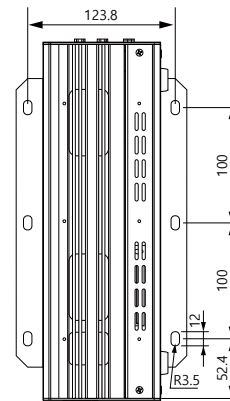
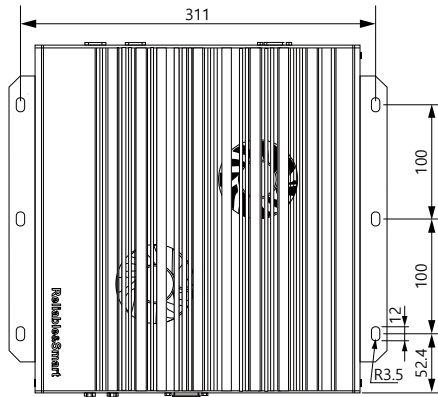
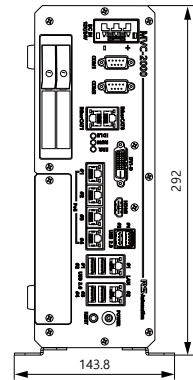
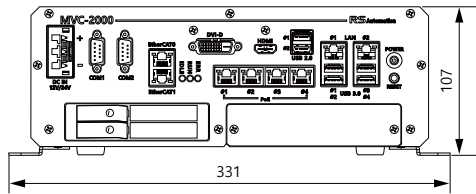
※2 Recommend of STP Cat5e cable or higher, please refer to manufacturer's specifications for camera setting.

# Dimensions

## ■ Product (Unit: mm)



## ■ Bracket mounted (Unit: mm)



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