



# CMT Series

## Edge Computing & Smart Manufacturing

# 1

## cMT X Series IIoT Edge Computing

A major HMI upgrade that not only retains features of the predecessors but also integrates OT with the IIoT.

### HMI

- ▶ Retains all key features of the predecessors.
- ▶ Supports more than 300 major PLC drivers. / Excellent computation and communication capability.
- ▶ EasyAccess 2.0 provides remote HMI Management and pass-through capacities.

- ▶ Revamped Web interface allows for HMI screen access and log viewing with only a web browser, plus enhanced security with encrypted data transmission.
- ▶ The enhanced CPU/GPU power of the quad-core processor ensures smooth operation of HMI project without delay, even with CODESYS running at the same time.
- ▶ HMI Program+PLC communication and CODESYS+ I/O module control runs on independent cores of the multi-core CPU, a cutting-edge proprietary technology.



Remote I/O



PLC

300+ Protocols Supported

Supports Modbus, CANopen, EtherNet/IP and EtherCAT

### CODESYS

- ▶ CODESYS runs on an independent core (Optional).
- ▶ Supports Modbus, CANopen, EtherNet/IP and EtherCAT.
- ▶ Supports applications using I/O modules.

### Features

- ▶ Built-in OPC UA Client / Server, certified by the OPC foundation.
- ▶ Modbus TCP/IP facilitates seamless integration with field devices.
- ▶ MQTT protocol, providing standard implementation as well as easy Cloud IIoT tool integration with AWS IoT, Microsoft Azure, and Google Cloud.
- ▶ Database feature supports MySQL and MS SQL systems, making applications like centralized recipe management or ERP integration feasible.



MQTT  
OPC UA  
Modbus



# 2 CMT G Series IIoT Edge Gateway

Outstanding data processing and communication ability facilitate integration of different brands of PLCs with protocol standards like OPC UA / MQTT / Modbus TCP/IP.

## Features

- Specializing in communication and data processing, cMT G Series can communicate with over 300 major PLC drivers and then transmit that data to IIoT platforms using the most popular IIoT protocols: OPC UA, MQTT and Modbus TCP/IP.
- Supports data log and event log synchronization to MySQL, MS SQL database servers.
- Built-in Web interface enables the use of web browser for tasks such as system settings, PLC communication parameter settings, OPC UA tag configuration, etc.
- The box shaped and 35mm DIN rail mountable design makes the model an easy fit in diverse settings.



## Modbus

MODBUS (TCP/IP) is a simple and common communication protocol used in industrial automation application.

## MQTT

MQTT, an built-in IoT protocol standard, features lightweight message transport and publish/subscribe mechanism.

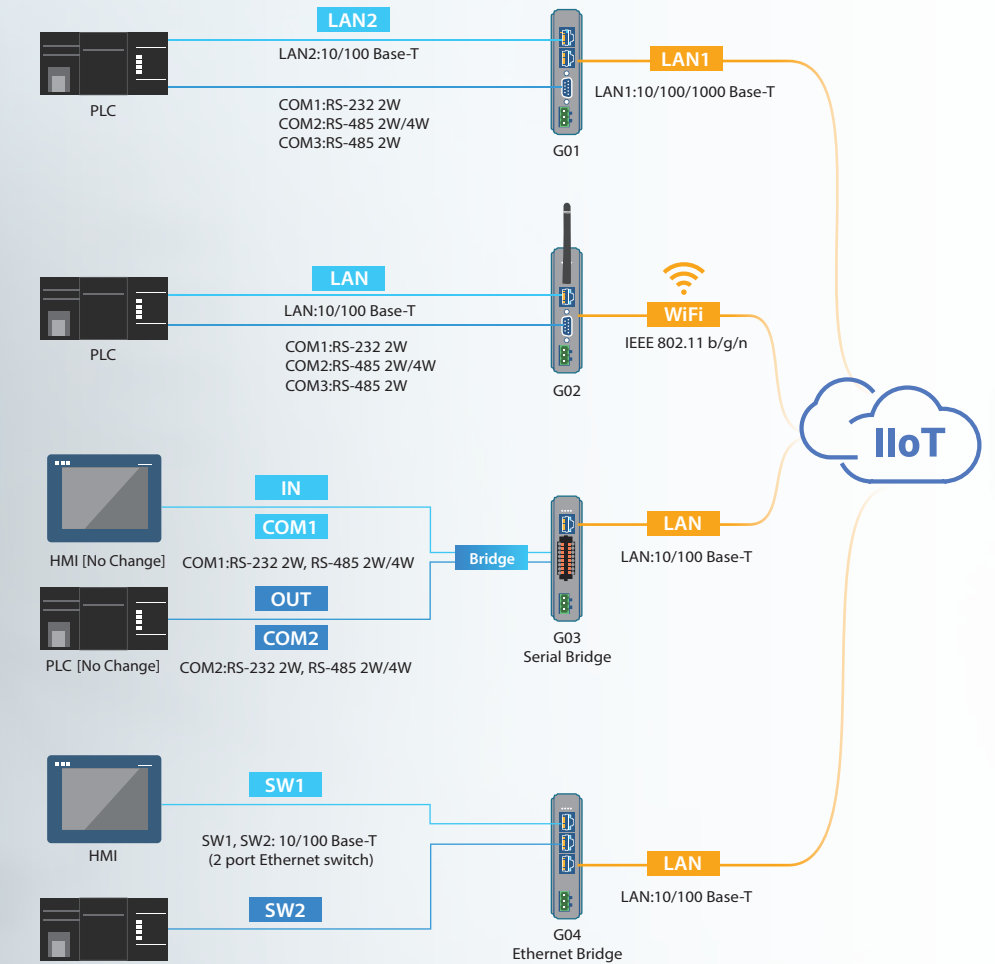
## 3 Major Industrial Communication Protocols



The built-in OPC UA is officially certified for compliance by the OPC Foundation. OPC UA is the key industrial communication protocol that is secure, open-source, and platform-dependent.

\*The OPC Foundation compliance logos are the property of OPC Foundation and are used under license.

## The Easier Bridge to IIoT



3

# cMT-CTRL+iR Series

IIoT Gateway / Motion Control / Remote I/O

IIoT



EasyBuilder Pro | CODESYS

## cMT-CTRL01

An IIoT Programmable Logic Controller that integrates CODESYS and Gateway.

## iR Series

EtherCAT

- Communication couplers: Modbus TCP/IP, CANopen, EtherNet/IP™, and EtherCAT.
- iR-PU01-P Motion Control Module.
- iR Digital / Analog IO Modules.
- iR-AI04-TR Temperature Module.

\* CODESYS® is a trademark of 3S-Smart Software Solutions GmbH.

\* EtherNet/IP is a trademark of ODVA, Inc.

\* EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany

- Dual Ethernet ports and RS-232/485 serial ports with communication support more than 300 major PLC drivers.
- In compliance with IEC 61131-3 standard, CODESYS supports multiple languages such as FBD/LD/IL/ST/SFC/CFC.
- With built-in Modbus TCP/IP Gateway, cMT-CTRL01 supports the protocols used by over 300 major PLC drivers.
- OPC UA and MQTT, being widely accepted standards, enable data upload from on-site devices to IIoT datacenter.
- Supports synchronization of sampled data and event log to SQL database.

4

# HMI with External Touch Monitor / TV of Your Own Choice

## Features

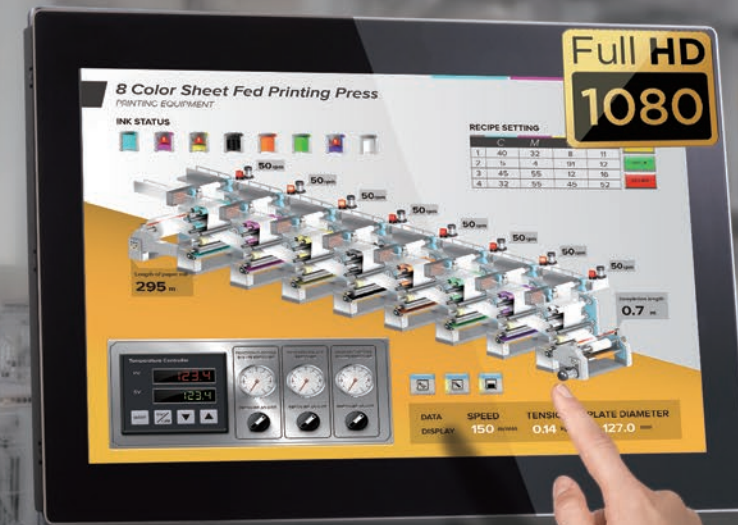
HDMI™  
HIGH-DEFINITION MULTIMEDIA INTERFACE

- Built-in HDMI interface and adjustable resolution up to 1920x1080
- Supports customized resolution for 16:9 / 4:3 LCD monitor
- Support IIoT Protocol: MQTT



cMT-FHDX-220

\*The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.



cMT-iM21

cMT-FHDX-220 has inherits all the rich HMI functionality found in the series. Without touchscreen and LCD, this HDMI-enabled unit can work with screens of any size, so that screen size is no longer limited by the HMIs provided on the market. It can also allow touch control via USB connection.

# Smart HMI

**Monitor Mode**  
Up to 50 HMIs can be  
monitored simultaneously.



## cMT-iv & cMT-ipc

cMT Series realizes “One Machine to Multi-Screens” architecture that can flexibly suit diverse application. Both of them can run cMT Viewer to display the instant and historical data or operate cMT-SVR. Furthermore, Windows-based cMT-ipc can run third party applications.

## EasyLauncher / cMT Viewer

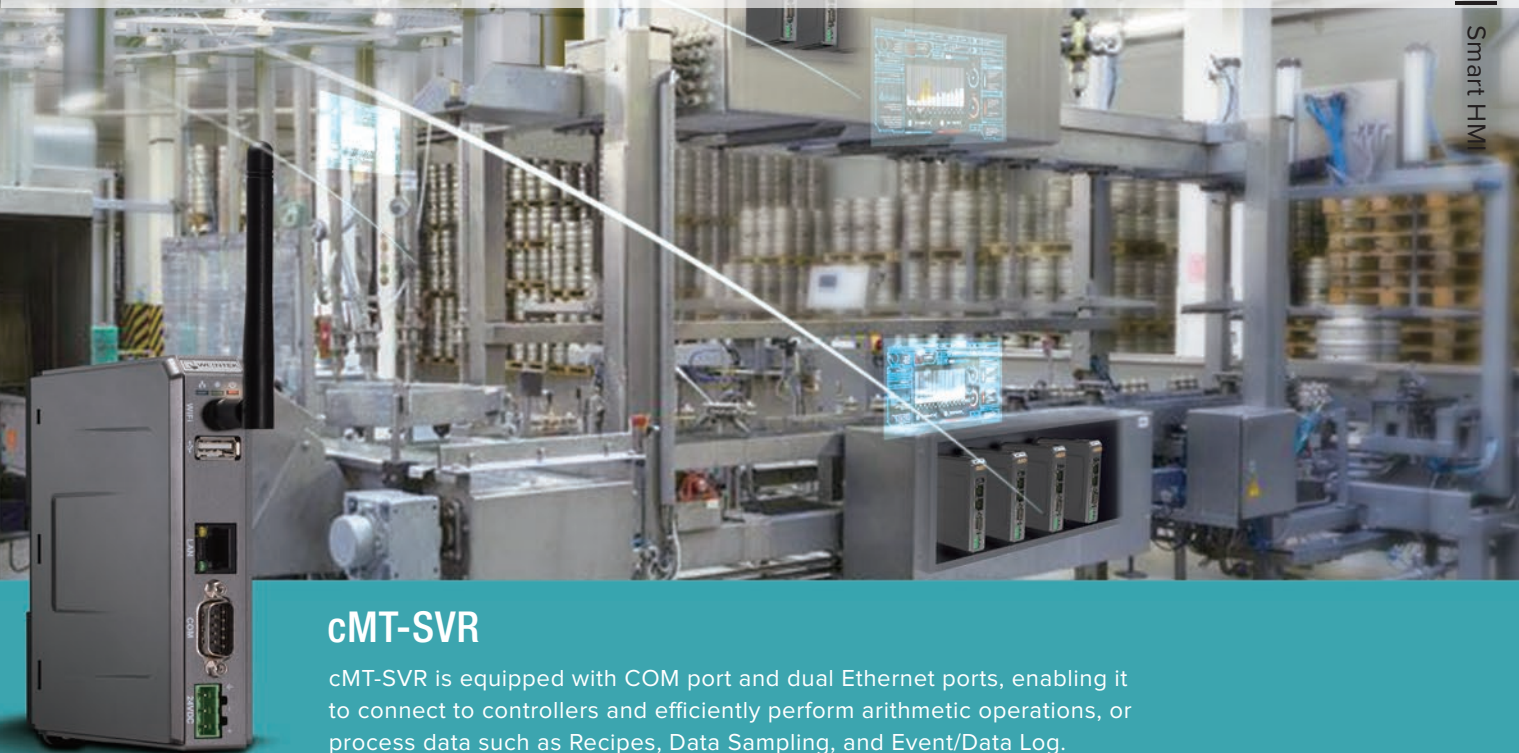
- ▶ cMT Viewer APP
- ▶ cMT Smart Monitor and Control - Monitor Mode
- ▶ Application Management - EasyLauncher

Windows10  
IoT

Easy  
Launcher

cMT  
Viewer

Monitor  
Mode



## cMT-SVR

cMT-SVR is equipped with COM port and dual Ethernet ports, enabling it to connect to controllers and efficiently perform arithmetic operations, or process data such as Recipes, Data Sampling, and Event/Data Log.

# 6 EasyAccess 2.0

« Factory Office »

## 1. Push Notification

- ▶ Get notified on the mobile phone, wherever you might be.

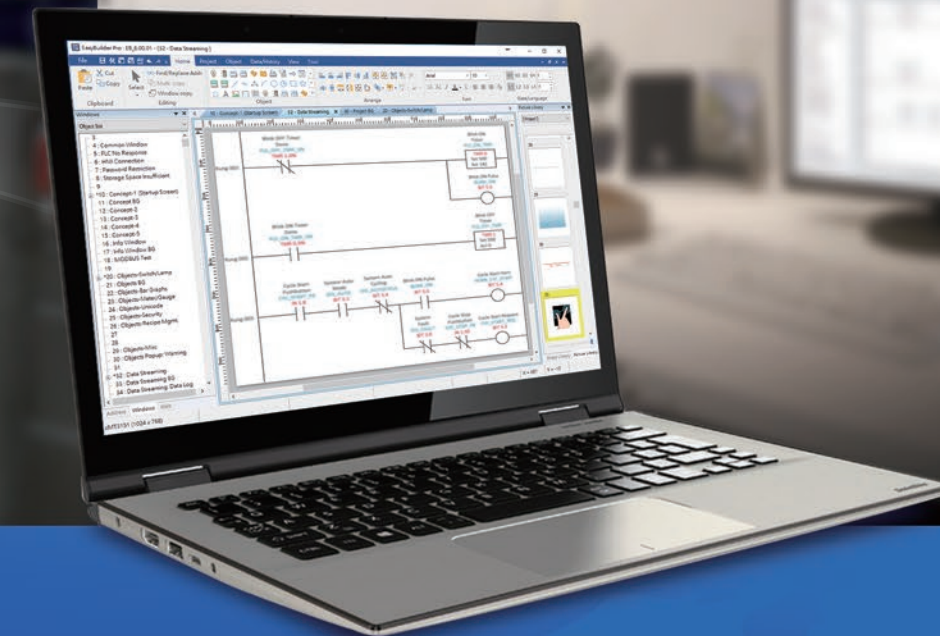


## 2. Pass-Through

- ▶ EasyAccess 2.0 can remotely debug or update devices without adjusting firewall settings.
- ▶ Tune or reprogram remote devices while using their original software.

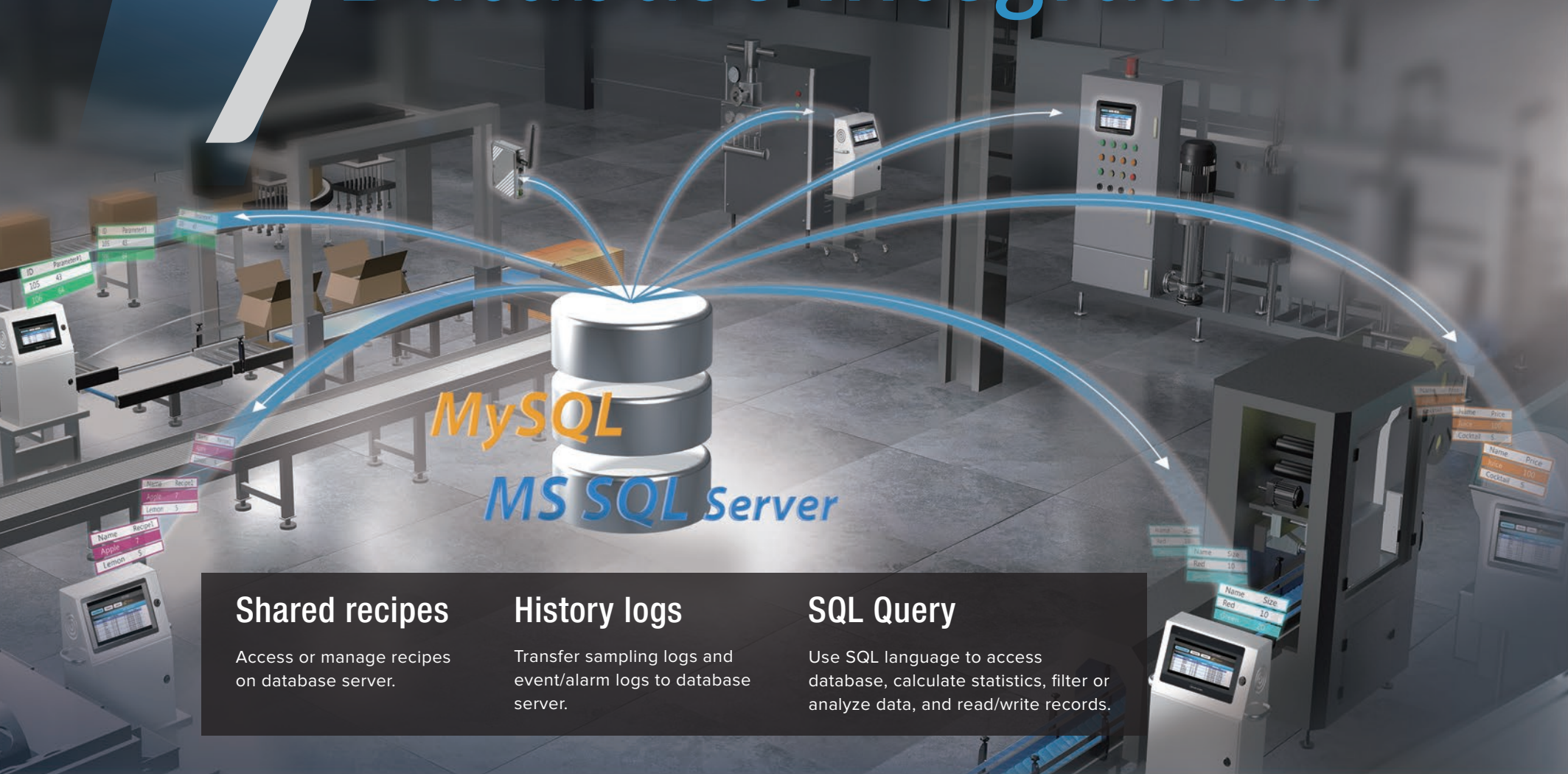
## 3. Remote Monitoring

- ▶ Monitor and control the remote machine with VNC or cMT Viewer. (available on PC/ iOS/ Android)



The HMI is not just for operating machines, collecting and managing data, but also plays a key role in IIoT as a Communication Gateway. The data in the device connected to HMI can be published to IIoT system.

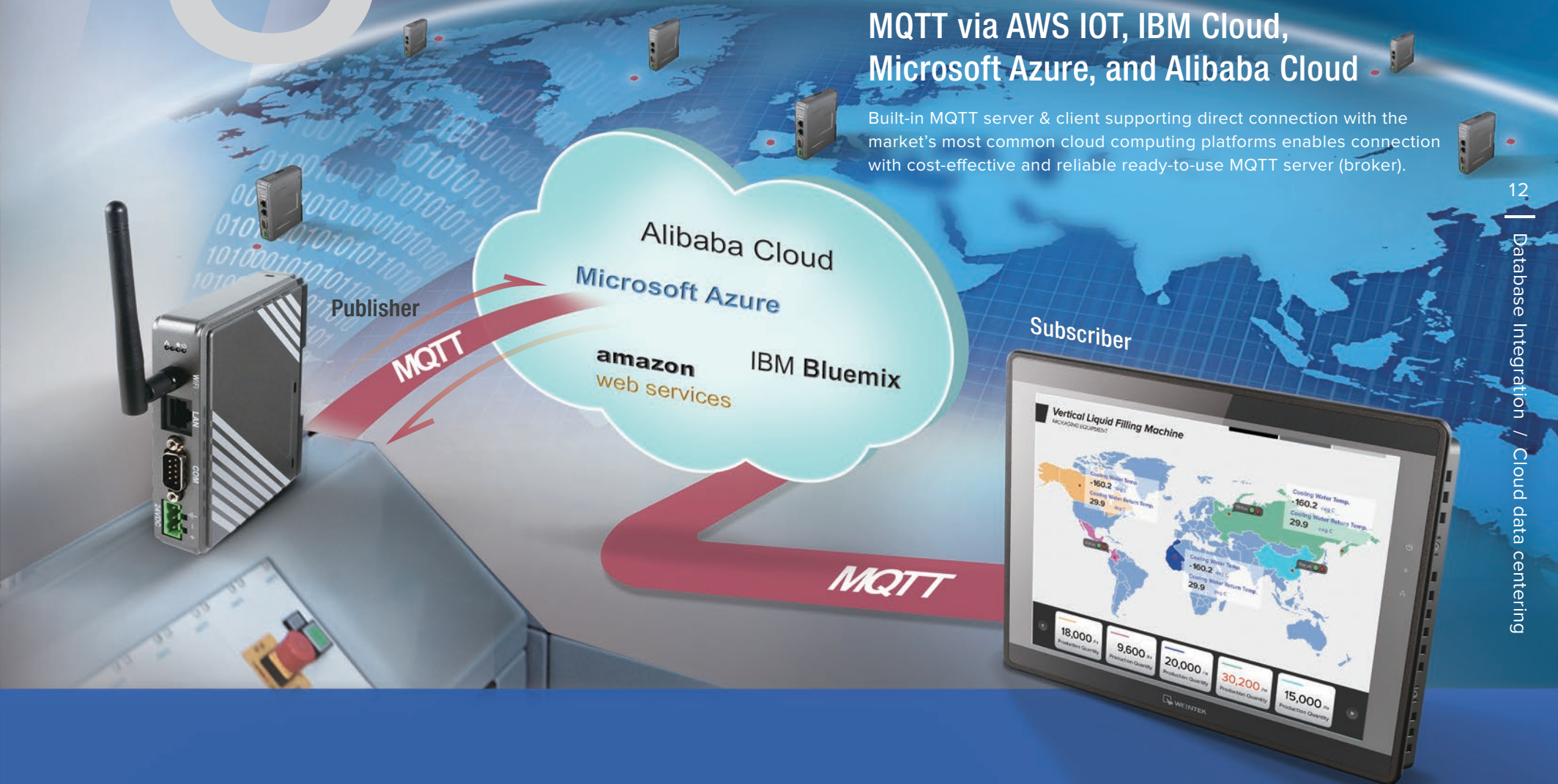
# 7 Database Integration



## Database Integration

HMIs can access data, records, or recipes from a database server directly. HMIs send SQL (Structured Query Language) queries to read or write database records. Built-in data samplings and event logs can also be synchronized automatically to database servers.

# 8 Cloud Data Centering



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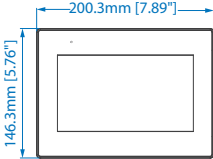
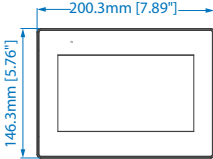
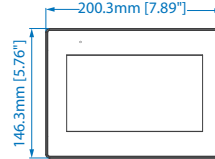
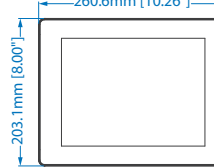
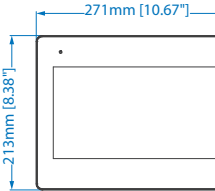
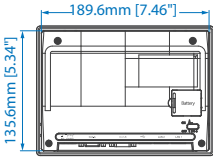
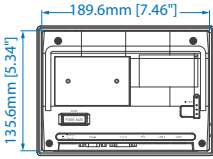
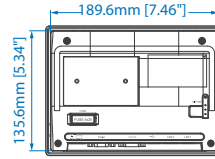
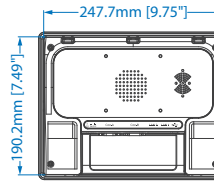
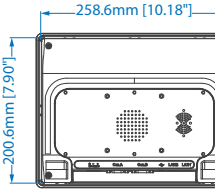
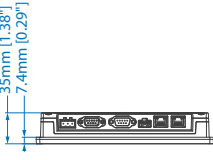
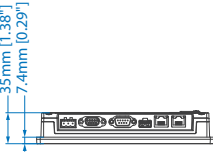
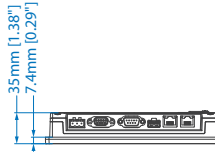
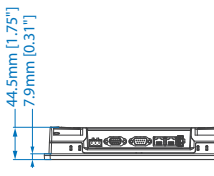
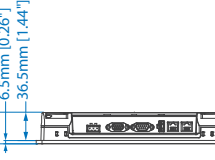
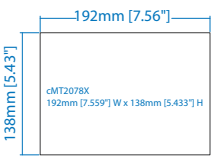
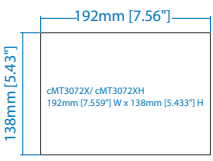
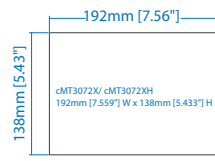
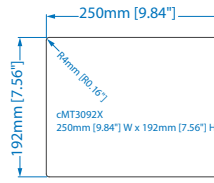
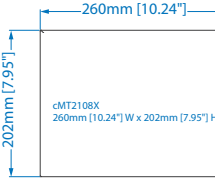
# Specification



|               | Model                       | cMT2078X                                                                                                          | cMT3072X                                                                                                                   | cMT3072XH                                                                                         | cMT3092X                                                                                          | cMT2108X                                                                                                          |
|---------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Display       | Display                     | 7" TFT                                                                                                            | 7" TFT                                                                                                                     | 7" IPS                                                                                            | 9.7" TFT                                                                                          | 10.1" TFT                                                                                                         |
|               | Resolution                  | 800 x 480                                                                                                         | 800 x 480                                                                                                                  | 1024 x 600                                                                                        | 1024 x 768                                                                                        | 1024 x 600                                                                                                        |
|               | Brightness (cd/ m²)         | 400                                                                                                               | 400                                                                                                                        | 450                                                                                               | 350                                                                                               | 350                                                                                                               |
|               | Contrast Ratio              | 800: 1                                                                                                            | 800: 1                                                                                                                     | 800: 1                                                                                            | 500:1                                                                                             | 500:1                                                                                                             |
|               | Backlight Type              | LED                                                                                                               | LED                                                                                                                        | LED                                                                                               | LED                                                                                               | LED                                                                                                               |
|               | Backlight Life Time         | > 30,000 hrs.                                                                                                     | > 30,000 hrs.                                                                                                              | > 25,000 hrs.                                                                                     | > 30,000 hrs.                                                                                     | > 50,000 hrs.                                                                                                     |
|               | Colors                      | 16.7M                                                                                                             | 16.7M                                                                                                                      | 16.7M                                                                                             | 262K                                                                                              | 16.7M                                                                                                             |
|               | LCD Viewing Angle (T/B/L/R) | 80/60/80/80                                                                                                       | 80/60/80/80                                                                                                                | 85/85/85/85                                                                                       | 60/70/70/70                                                                                       | 70/70/80/80                                                                                                       |
| Touch Panel   | Pixel Pitch (mm)            | 0.1926(H) x 0.179(V)                                                                                              | 0.1926(H) x 0.179(V)                                                                                                       | 0.1506(H) x 0.1432(V)                                                                             | 0.192(H) x 0.192(V)                                                                               | 0.2175 (H) x 0.2088 (V)                                                                                           |
|               | Type                        | 4-wire Resistive Type                                                                                             | 4-wire Resistive Type                                                                                                      | 4-wire Resistive Type                                                                             | 4-wire Resistive Type                                                                             | 4-wire Resistive Type                                                                                             |
| Memory        | Accuracy                    | Active Area Length(X)±2%, Width(Y)±2%                                                                             | Active Area Length(X)±2%, Width(Y)±2%                                                                                      | Active Area Length(X)±2%, Width(Y)±2%                                                             | Active Area Length(X)±2%, Width(Y)±2%                                                             | Active Area Length(X)±2%, Width(Y)±2%                                                                             |
|               | Flash                       | 4 GB                                                                                                              | 4 GB                                                                                                                       | 4 GB                                                                                              | 4 GB                                                                                              | 4 GB                                                                                                              |
| Processor     | RAM                         | 1 GB                                                                                                              | 1 GB                                                                                                                       | 1 GB                                                                                              | 1 GB                                                                                              | 1 GB                                                                                                              |
|               |                             | Quad-core 64-bit RISC 1.5GHz                                                                                      | Quad-core 64-bit RISC 1.5GHz                                                                                               | Quad-core 64-bit RISC 1.5GHz                                                                      | Quad-core 32-bit RISC 1.6GHz                                                                      | Quad-core 32-bit RISC 1.6GHz                                                                                      |
| I/O Port      | USB Host                    | USB 2.0 x 1                                                                                                       | USB 2.0 x 1                                                                                                                | USB 2.0 x 1                                                                                       | USB 2.0 x 1                                                                                       | USB 2.0 x 1                                                                                                       |
|               | Ethernet                    | LAN 1: 10/100 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                                              | LAN 1: 10/100 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                                                       | LAN 1: 10/100 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                              | LAN 1: 10/100/1000 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                         | LAN 1: 10/100/1000 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                                         |
|               | COM Port                    | Con.A: COM2 RS-485 2W/4W,<br>COM3 RS-485 2W<br>Con.B: COM1 RS-232 4W,<br>COM3 RS-232 2W*<br>MPI is not supported. | Con.A: COM2 RS-485 2W/4W,<br>COM3 RS-485 2W, CAN Bus<br>Con.B: COM1 RS-232 4W,<br>COM3 RS-232 2W*<br>MPI is not supported. | Con.A: COM2 RS-485 2W/4W,<br>COM3 RS-485 2W, CAN Bus<br>Con.B: COM1 RS-232 4W,<br>COM3 RS-232 2W* | Con.A: COM2 RS-485 2W/4W,<br>COM3 RS-485 2W, CAN Bus<br>Con.B: COM1 RS-232 4W,<br>COM3 RS-232 2W* | Con.A: COM2 RS-485 2W/4W,<br>COM3 RS-485 2W<br>Con.B: COM1 RS-232 4W,<br>COM3 RS-232 2W*<br>MPI is not supported. |
|               | CAN Bus                     | N/A                                                                                                               | Yes                                                                                                                        | Yes                                                                                               | Yes                                                                                               | N/A                                                                                                               |
|               | Audio Output                | N/A                                                                                                               | N/A                                                                                                                        | N/A                                                                                               | Built-in Mono Speaker                                                                             | N/A                                                                                                               |
|               | RTC                         | Built-in                                                                                                          | Built-in                                                                                                                   | Built-in                                                                                          | Built-in                                                                                          | Built-in                                                                                                          |
| Power         | Input Power                 | 24±20%VDC                                                                                                         | 24±20%VDC                                                                                                                  | 24±20%VDC                                                                                         | 24±20%VDC                                                                                         | 24±20%VDC                                                                                                         |
|               | Power Isolation             | Built-in                                                                                                          | Built-in                                                                                                                   | Built-in                                                                                          | Built-in                                                                                          | Built-in                                                                                                          |
|               | Power Consumption           | 820mA@24VDC                                                                                                       | 850mA@24VDC                                                                                                                | 850mA@24VDC                                                                                       | 1A@24VDC                                                                                          | 1A@24VDC                                                                                                          |
|               | Voltage Resistance          | 500VAC (1 min.)                                                                                                   | 500VAC (1 min.)                                                                                                            | 500VAC (1 min.)                                                                                   | 500VAC (1 min.)                                                                                   | 500VAC (1 min.)                                                                                                   |
|               | Isolation Resistance        | Exceed 50MΩ @ 500VDC                                                                                              | Exceed 50MΩ @ 500VDC                                                                                                       | Exceed 50MΩ @ 500VDC                                                                              | Exceed 50MΩ @ 500VDC                                                                              | Exceed 50MΩ @ 500VDC                                                                                              |
|               | Vibration Endurance         | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                                                   | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                                                            | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                                   | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                                   | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                                                   |
| Specification | PCB Coating                 | Yes                                                                                                               | Yes                                                                                                                        | Yes                                                                                               | Yes                                                                                               | Yes                                                                                                               |
|               | Enclosure                   | Plastic                                                                                                           | Plastic                                                                                                                    | Plastic                                                                                           | Plastic                                                                                           | Plastic                                                                                                           |
|               | Dimensions WxHxD            | 200.3 x 146.3 x 35.0 mm                                                                                           | 200.3 x 146.3 x 35.0 mm                                                                                                    | 200.3 x 146.3 x 35.0 mm                                                                           | 260.6 x 203.1 x 44.5 mm                                                                           | 271 x 213 x 43 mm                                                                                                 |
|               | Panel Cutout                | 192 x 138 mm                                                                                                      | 192 x 138 mm                                                                                                               | 192 x 138 mm                                                                                      | 250 x 192 mm                                                                                      | 260 x 202 mm                                                                                                      |
|               | Weight                      | Approx. 0.6 kg                                                                                                    | Approx. 0.6 kg                                                                                                             | Approx. 0.6 kg                                                                                    | Approx. 1 kg                                                                                      | Approx. 1.2 kg                                                                                                    |
|               | Mount                       | Panel mount                                                                                                       | Panel mount                                                                                                                | Panel mount                                                                                       | Panel mount,<br>VESA mount 75 x 75 mm                                                             | Panel mount,<br>VESA mount 75 x 75 mm                                                                             |
| Environment   | Protection Structure        | NEMA4 / IP66 Compliant Front Panel                                                                                | UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel                                                          | UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel                                 | UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel                                 | NEMA4 / IP66 Compliant Front Panel                                                                                |
|               | Storage Temperature         | -20° ~ 60° C (-4° ~ 140° F)                                                                                       | -20° ~ 60° C (-4° ~ 140° F)                                                                                                | -20° ~ 60° C (-4° ~ 140° F)                                                                       | -20° ~ 60° C (-4° ~ 140° F)                                                                       | -20° ~ 60° C (-4° ~ 140° F)                                                                                       |
|               | Operating Temperature       | 0° ~ 55° C (32° ~ 131° F)                                                                                         | 0° ~ 55° C (32° ~ 131° F)                                                                                                  | 0° ~ 55° C (32° ~ 131° F)                                                                         | 0° ~ 50° C (32° ~ 122° F)                                                                         | 0° ~ 50° C (32° ~ 122° F)                                                                                         |
|               | Relative Humidity           | 10% ~ 90% (non-condensing)                                                                                        | 10% ~ 90% (non-condensing)                                                                                                 | 10% ~ 90% (non-condensing)                                                                        | 10% ~ 90% (non-condensing)                                                                        | 10% ~ 90% (non-condensing)                                                                                        |
| Certificate   | CE                          | CE marked                                                                                                         | CE marked                                                                                                                  | CE marked                                                                                         | CE marked                                                                                         | CE marked                                                                                                         |
|               | UL                          |                                                                                                                   | cULus Listed                                                                                                               | cULus Listed                                                                                      | cULus Listed                                                                                      |                                                                                                                   |
| Software      |                             | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>CODESYS (Optional)                                                | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>CODESYS (Optional)                                                         | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>CODESYS (Optional)                                | EasyBuilder Pro<br>Built-in EasyAccess 2.0<br>CODESYS (Optional)                                  | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>CODESYS (Optional)                                                |

\*cMT2078X/ cMT3072X/ cMT3072XH/ cMT3092X/ cMT2108X: Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.

# Dimensions

| cMT2078X                                                                                                                                                                        | cMT3072X                                                                                                                                                                                   | cMT3072XH                                                                                                                                                                                   | cMT3092X                                                                                                                                                                        | cMT2108X                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>200.3mm [7.89"]<br/>146.3mm [5.76"]</p>                                                    |  <p>200.3mm [7.89"]<br/>146.3mm [5.76"]</p>                                                               |  <p>200.3mm [7.89"]<br/>146.3mm [5.76"]</p>                                                               |  <p>260.6mm [10.26"]<br/>203.1mm [8.00"]</p>                                                 |  <p>271mm [10.67"]<br/>213mm [8.38"]</p>                                                       |
| Front View                                                                                                                                                                      | Front View                                                                                                                                                                                 | Front View                                                                                                                                                                                  | Front View                                                                                                                                                                      | Front View                                                                                                                                                                        |
|  <p>189.6mm [7.46"]<br/>135.6mm [5.34"]</p>                                                    |  <p>189.6mm [7.46"]<br/>135.6mm [5.34"]</p>                                                               |  <p>189.6mm [7.46"]<br/>135.6mm [5.34"]</p>                                                               |  <p>247.7mm [9.75"]<br/>190.2mm [7.49"]</p>                                                  |  <p>258.6mm [10.18"]<br/>200.6mm [7.90"]</p>                                                   |
| Rear View                                                                                                                                                                       | Rear View                                                                                                                                                                                  | Rear View                                                                                                                                                                                   | Rear View                                                                                                                                                                       | Rear View                                                                                                                                                                         |
|  <p>35mm [1.38"]<br/>7.4mm [0.29"]</p>                                                        |  <p>35mm [1.38"]<br/>7.4mm [0.29"]</p>                                                                   |  <p>35mm [1.38"]<br/>7.4mm [0.29"]</p>                                                                   |  <p>44.5mm [1.75"]<br/>7.9mm [0.31"]</p>                                                    |  <p>43mm [1.69"]<br/>6.5mm [0.26"]<br/>36.5mm [1.44"]</p>                                     |
| Bottom View                                                                                                                                                                     | Bottom View                                                                                                                                                                                | Bottom View                                                                                                                                                                                 | Bottom View                                                                                                                                                                     | Bottom View                                                                                                                                                                       |
|  <p>192mm [7.56"]<br/>138mm [5.43"]<br/>cMT2078X<br/>192mm [7.559"] W x 138mm [5.433"] H</p> |  <p>192mm [7.56"]<br/>138mm [5.43"]<br/>cMT3072X/ cMT3072XH<br/>192mm [7.559"] W x 138mm [5.433"] H</p> |  <p>192mm [7.56"]<br/>138mm [5.43"]<br/>cMT3072X/ cMT3072XH<br/>192mm [7.559"] W x 138mm [5.433"] H</p> |  <p>250mm [9.84"]<br/>192mm [7.56"]<br/>cMT3092X<br/>250mm [9.84"] W x 192mm [7.56"] H</p> |  <p>260mm [10.24"]<br/>202mm [7.95"]<br/>cMT2108X<br/>260mm [10.24"] W x 202mm [7.95"] H</p> |
| Cutout Dimensions                                                                                                                                                               | Cutout Dimensions                                                                                                                                                                          | Cutout Dimensions                                                                                                                                                                           | Cutout Dimensions                                                                                                                                                               | Cutout Dimensions                                                                                                                                                                 |

# Specification



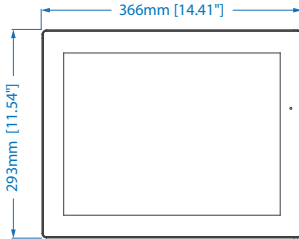
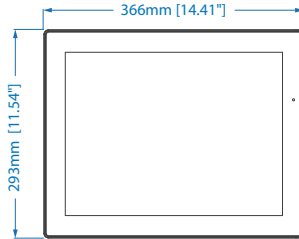
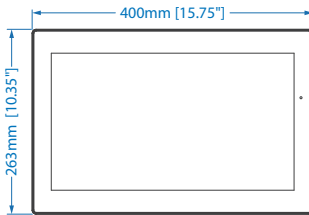
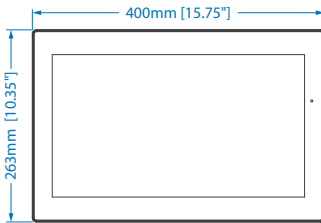
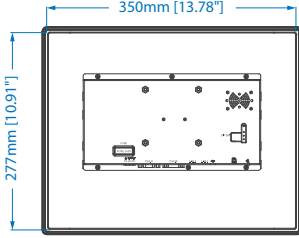
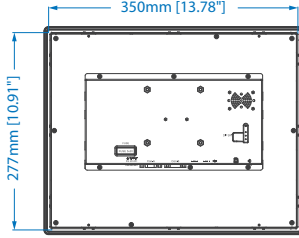
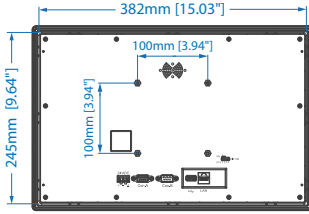
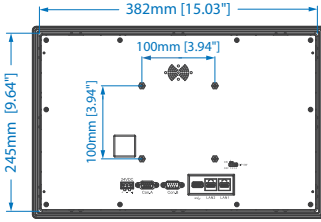
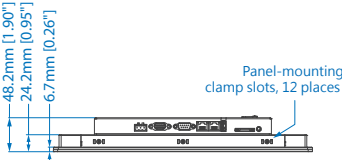
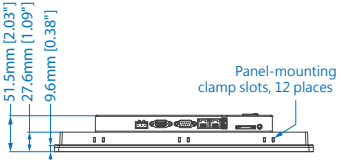
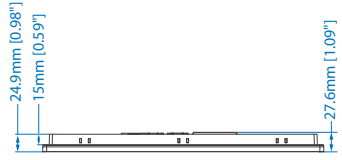
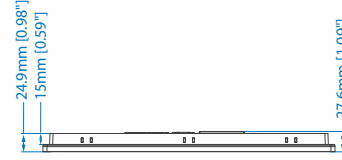
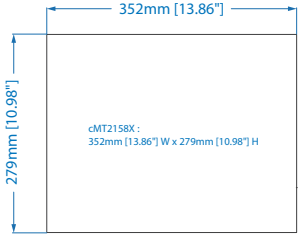
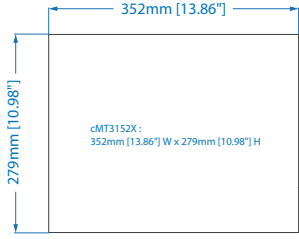
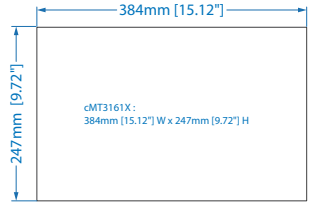
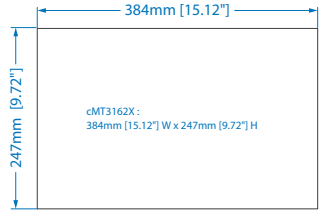
|               | Model                       | cMT2158X                                                                                                       | cMT3152X                                                                                       | cMT3161X                                                                                                       | cMT3162X                                                                                       |
|---------------|-----------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Display       | Display                     | 15" IPS                                                                                                        | 15" IPS                                                                                        | 15.6" IPS                                                                                                      | 15.6" IPS                                                                                      |
|               | Resolution                  | 1024 x 768                                                                                                     | 1024 x 768                                                                                     | 1920 x 1080                                                                                                    | 1920 x 1080                                                                                    |
|               | Brightness (cd/ m²)         | 400                                                                                                            | 400                                                                                            | 300                                                                                                            | 300                                                                                            |
|               | Contrast Ratio              | 1000: 1                                                                                                        | 1000: 1                                                                                        | 800: 1                                                                                                         | 800: 1                                                                                         |
|               | Backlight Type              | LED                                                                                                            | LED                                                                                            | LED                                                                                                            | LED                                                                                            |
|               | Backlight Life Time         | > 50,000 hrs.                                                                                                  | > 50,000 hrs.                                                                                  | > 30,000 hrs.                                                                                                  | > 30,000 hrs.                                                                                  |
|               | Colors                      | 16.2M                                                                                                          | 16.2M                                                                                          | 16.2M                                                                                                          | 16.2M                                                                                          |
|               | LCD Viewing Angle (T/B/L/R) | 89/89/89/89                                                                                                    | 89/89/89/89                                                                                    | 89/89/89/89                                                                                                    | 89/89/89/89                                                                                    |
| Touch Panel   | Pixel Pitch (mm)            | 0.297(H) x 0.297(V)                                                                                            | 0.297(H) x 0.297(V)                                                                            | 0.17925(H) x 0.17925(V)                                                                                        | 0.17925(H) x 0.17925(V)                                                                        |
|               | Type                        | 4-wire Resistive Type                                                                                          | Tempered Glass, Capacitive Type*<br>Hardness Scale 7H                                          | Tempered Glass, Capacitive Type*<br>Hardness Scale 7H                                                          | Tempered Glass, Capacitive Type*<br>Hardness Scale 7H                                          |
|               | Accuracy                    | Active Area Length(X)±2%, Width(Y)±2%                                                                          | N/A                                                                                            | N/A                                                                                                            | N/A                                                                                            |
| Memory        | Flash                       | 4 GB                                                                                                           | 4 GB                                                                                           | 4 GB                                                                                                           | 4 GB                                                                                           |
|               | RAM                         | 1 GB                                                                                                           | 1 GB                                                                                           | 1 GB                                                                                                           | 1 GB                                                                                           |
| Processor     |                             | Quad-core 32-bit RISC 1.6GHz                                                                                   | Quad-core 32-bit RISC 1.6GHz                                                                   | Quad-core 32-bit RISC 1.6GHz                                                                                   | Quad-core 32-bit RISC 1.6GHz                                                                   |
| I/O Port      | SD Card Slot                | SD/SDHC                                                                                                        | SD/SDHC                                                                                        | N/A                                                                                                            | N/A                                                                                            |
|               | USB Host                    | USB 2.0 x 1                                                                                                    | USB 2.0 x 1                                                                                    | USB 2.0 x 1                                                                                                    | USB 2.0 x 1                                                                                    |
|               | Ethernet                    | LAN 1: 10/100/1000 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                                      | LAN 1: 10/100/1000 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                      | 10/100 Base-T x 1                                                                                              | LAN 1: 10/100/1000 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                                      |
|               | Wi-Fi                       | N/A                                                                                                            | N/A                                                                                            | N/A                                                                                                            | N/A                                                                                            |
|               | COM Port                    | Con.A: COM1 RS-485 2W/4W,<br>COM3 RS-485 2W<br>Con.B: COM1 RS-232 4W, COM3 RS-232 2W*<br>MPI is not supported. | Con.A: COM1 RS-485 2W/4W,<br>COM3 RS-485 2W, CAN Bus<br>Con.B: COM1 RS-232 4W, COM3 RS-232 2W* | Con.A: COM1 RS-485 2W/4W,<br>COM3 RS-485 2W<br>Con.B: COM1 RS-232 4W, COM3 RS-232 2W*<br>MPI is not supported. | Con.A: COM1 RS-485 2W/4W,<br>COM3 RS-485 2W, CAN Bus<br>Con.B: COM1 RS-232 4W, COM3 RS-232 2W* |
|               | RS-485 Dual Isolation       | Yes                                                                                                            | Yes                                                                                            | N/A                                                                                                            | N/A                                                                                            |
|               | CAN Bus                     | N/A                                                                                                            | Yes                                                                                            | N/A                                                                                                            | Yes                                                                                            |
|               | Audio Output                | Built-in Mono Speaker<br>Audio Line Out - 3.5 mm jack x 1                                                      | Built-in Mono Speaker<br>Audio Line Out - 3.5 mm jack x 1                                      | Built-in Mono Speaker                                                                                          | Built-in Mono Speaker                                                                          |
|               | RTC                         | Built-in                                                                                                       | Built-in                                                                                       | Built-in                                                                                                       | Built-in                                                                                       |
|               | Power                       |                                                                                                                |                                                                                                |                                                                                                                |                                                                                                |
| Specification | Input Power                 | 24±20%VDC                                                                                                      | 24±20%VDC                                                                                      | 24±20%VDC                                                                                                      | 24±20%VDC                                                                                      |
|               | Power Isolation             | Built-in                                                                                                       | Built-in                                                                                       | Built-in                                                                                                       | Built-in                                                                                       |
|               | Power Consumption           | 1.3A@24VDC                                                                                                     | 1.3A@24VDC                                                                                     | 1.3A@24VDC                                                                                                     | 1.3A@24VDC                                                                                     |
|               | Voltage Resistance          | 500VAC (1 min.)                                                                                                | 500VAC (1 min.)                                                                                | 500VAC (1 min.)                                                                                                | 500VAC (1 min.)                                                                                |
|               | Isolation Resistance        | Exceed 50MΩ @ 500VDC                                                                                           | Exceed 50MΩ @ 500VDC                                                                           | Exceed 50MΩ @ 500VDC                                                                                           | Exceed 50MΩ @ 500VDC                                                                           |
|               | Vibration Endurance         | 10 to 25Hz (X, Y, Z direction 2G 30 minutes)                                                                   | 10 to 25Hz (X, Y, Z direction 2G 30 minutes)                                                   | 10 to 25Hz (X, Y, Z direction 2G 30 minutes)                                                                   | 10 to 25Hz (X, Y, Z direction 2G 30 minutes)                                                   |
|               | PCB Coating                 | Yes                                                                                                            | Yes                                                                                            | Yes                                                                                                            | Yes                                                                                            |
|               | Enclosure                   | Aluminum                                                                                                       | Front bezel: Plastic, Rear Enclosure: Aluminum                                                 | Front bezel: Plastic, Rear Enclosure: Aluminum                                                                 | Front bezel: Plastic, Rear Enclosure: Aluminum                                                 |
|               | Dimensions WxHxD            | 366 x 293 x 48.2mm                                                                                             | 366 x 293 x 51.5 mm                                                                            | 400 x 263 x 27.6 mm                                                                                            | 400 x 263 x 27.6 mm                                                                            |
|               | Panel Cutout                | 352 x 279 mm                                                                                                   | 352 x 279 mm                                                                                   | 384 x 247 mm                                                                                                   | 384 x 247 mm                                                                                   |
| Environment   | Weight                      | Approx. 2.6 kg                                                                                                 | Approx. 2.75 kg                                                                                | Approx. 1.6 kg                                                                                                 | Approx. 1.6 kg                                                                                 |
|               | Mount                       | Panel mount, VESA mount 75 x 75 mm                                                                             | Panel mount, VESA mount 75 x 75 mm                                                             | Panel mount, VESA mount 100 x 100 mm                                                                           | Panel mount, VESA mount 100 x 100 mm                                                           |
|               | Protection Structure        | NEMA4 / IP66 Compliant Front Panel                                                                             | NEMA4 / IP66 Compliant Front Panel                                                             | NEMA4 / IP66 Compliant Front Panel                                                                             | NEMA4 / IP66 Compliant Front Panel                                                             |
|               | Storage Temperature         | -20° ~ 60° C (-4° ~ 140° F)                                                                                    | -20° ~ 60° C (-4° ~ 140° F)                                                                    | -20° ~ 60° C (-4° ~ 140° F)                                                                                    | -20° ~ 60° C (-4° ~ 140° F)                                                                    |
|               | Operating Temperature       | 0° ~ 50° C (32° ~ 122° F)                                                                                      | 0° ~ 50° C (32° ~ 122° F)                                                                      | 0° ~ 50° C (32° ~ 122° F)                                                                                      | 0° ~ 50° C (32° ~ 122° F)                                                                      |
| Certificate   | Relative Humidity           | 10% ~ 90% (non-condensing)                                                                                     | 10% ~ 90% (non-condensing)                                                                     | 10% ~ 90% (non-condensing)                                                                                     | 10% ~ 90% (non-condensing)                                                                     |
|               | CE                          | CE marked                                                                                                      | CE marked                                                                                      | CE marked                                                                                                      | CE marked                                                                                      |
|               | UL                          |                                                                                                                | cULus Listed                                                                                   |                                                                                                                | cULus Listed                                                                                   |
| Software      |                             | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>CODESYS (Optional)                                             | EasyBuilder Pro<br>Built-in EasyAccess 2.0<br>CODESYS (Optional)                               | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)                                                                   | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>CODESYS (Optional)                             |

\*cMT2158X/ cMT3152X/ cMT3161X/ cMT3162X: Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.

\*cMT3152X/ cMT3161X/ cMT3162X: Supports multi-touch gestures.

\*cMT3162X: Supports vibrational feedback.

# Dimensions

| cMT2158X                                                                                                                                                       | cMT3152X                                                                                                                                                       | cMT3161X                                                                                                                                                        | cMT3162X                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Front View</p>                         |  <p>Front View</p>                         |  <p>Front View</p>                        |  <p>Front View</p>                        |
|  <p>Rear View</p>                          |  <p>Rear View</p>                          |  <p>Rear View</p>                          |  <p>Rear View</p>                          |
|  <p>Bottom View</p> |  <p>Bottom View</p> |  <p>Bottom View</p> |  <p>Bottom View</p> |
|  <p>Cutout Dimensions</p>                |  <p>Cutout Dimensions</p>                |  <p>Cutout Dimensions</p>                |  <p>Cutout Dimensions</p>                |

# Specification



|               | Model                    | cMT-CTRL01                                                          | cMT-G01                                                   | cMT-G02                                                                                         | cMT-G03                                                        | cMT-G04                                                                           |
|---------------|--------------------------|---------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Memory        | Flash                    | 4 GB                                                                | 256 MB                                                    | 256 MB                                                                                          | 256 MB                                                         | 256 MB                                                                            |
|               | RAM                      | 512 MB                                                              | 256 MB                                                    | 256 MB                                                                                          | 256 MB                                                         | 256 MB                                                                            |
|               | Data, Memory, Code       | 3 MB                                                                | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
|               | Retain area              | 16 KB<br>(every minute) (Kept after reboots)                        | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
|               | Persistent area          | 16 KB<br>(every minute) (Kept after downloads)                      | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
|               | File system              | 8MB                                                                 | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
| Processor     |                          | Dual-Core 32 bits RISC 1GHz                                         | 32-bit RISC 600MHz                                        | 32-bit RISC 600MHz                                                                              | 32-bit RISC 528MHz                                             | 32-bit RISC 528MHz                                                                |
| I/O Port      | SD Card Slot             | SD/SDHC                                                             | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
|               | Ethernet                 | Ethernet 1: 10/100/1000 Base-T x 1<br>Ethernet 2: 10/100 Base-T x 1 | LAN 1: 10/100/1000 Base-T x 1<br>LAN 2: 10/100 Base-T x 1 | 10/100 Base-T x 1                                                                               | 10/100 Base-T x 1                                              | LAN: 10/100 Base-T x 1<br>SW1, SW2: 10/100 Base-T x 1<br>(2 port Ethernet switch) |
|               | Wi-Fi                    | N/A                                                                 | N/A                                                       | IEEE 802.11 b/g/n<br>802.11b: max 15.88 dBm<br>802.11g: max 11.92 dBm<br>802.11n: max 11.28 dBm | N/A                                                            | N/A                                                                               |
|               | COM Port                 | COM1: RS-232 2W<br>COM2: RS-485 2W/4W<br>COM3: RS-485 2W            | COM1: RS-232 2W<br>COM2: RS-485 2W/4W<br>COM3: RS-485 2W  | COM1: RS-232 2W<br>COM2: RS-485 2W/4W<br>COM3: RS-485 2W                                        | COM1: RS-232 2W, RS-485 2W/4W<br>COM2: RS-232 2W, RS-485 2W/4W | N/A                                                                               |
|               | Local bus                | iBus                                                                | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
| CODESYS       | Protocol                 | Modbus TCP/IP Master, EtherCAT Master                               | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
| RTC           |                          | Built-in                                                            | Built-in                                                  | Built-in                                                                                        | Built-in                                                       | Built-in                                                                          |
| Power         | Input Power              | 24±20%VDC                                                           | 24±20%VDC                                                 | 10.5~28VDC                                                                                      | 10.5~28VDC                                                     | 10.5~28VDC                                                                        |
|               | Power Isolation          | Built-in                                                            | Built-in                                                  | Built-in                                                                                        | Built-in                                                       | Built-in                                                                          |
|               | Current for Internal Bus | Max 2A@5VDC                                                         | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
|               | Current Consumption      | 550mA@5VDC                                                          | N/A                                                       | N/A                                                                                             | N/A                                                            | N/A                                                                               |
|               | Power Consumption        | Nominal 310mA@24VDC                                                 | 230mA@24VDC                                               | 230mA@12VDC ; 115mA@24VDC                                                                       | 300mA@12VDC ; 150mA@24VDC                                      | 270mA@12VDC ; 150mA@24VDC                                                         |
|               | Voltage Resistance       | 500VAC (1 min.)                                                     | 500VAC (1 min.)                                           | 500VAC (1 min.)                                                                                 | 500VAC (1 min.)                                                | 500VAC (1 min.)                                                                   |
|               | Isolation Resistance     | Exceed 50MΩ @ 500VDC                                                | Exceed 50MΩ @ 500VDC                                      | Exceed 50MΩ @ 500VDC                                                                            | Exceed 50MΩ @ 500VDC                                           | Exceed 50MΩ @ 500VDC                                                              |
|               | Vibration Endurance      | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                     | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)           | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                                 | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                   |
| Specification | PCB Coating              | Yes                                                                 | Yes                                                       | Yes                                                                                             | Yes                                                            | Yes                                                                               |
|               | Enclosure                | Plastic                                                             | Plastic                                                   | Plastic                                                                                         | Plastic                                                        | Plastic                                                                           |
|               | Dimensions WxHxD         | 50 x 109 x 81 mm                                                    | 27 x 109 x 81 mm                                          | 27 x 109 x 81 mm                                                                                | 27 x 109 x 81 mm                                               | 27 x 109 x 81 mm                                                                  |
|               | Weight                   | Approx. 0.24 kg                                                     | Approx. 0.14 kg                                           | Approx. 0.14 kg                                                                                 | Approx. 0.14 kg                                                | Approx. 0.14 kg                                                                   |
|               | Mount                    | 35 mm DIN rail mounting                                             | 35 mm DIN rail mounting                                   | 35 mm DIN rail mounting                                                                         | 35 mm DIN rail mounting                                        | 35 mm DIN rail mounting                                                           |
| Environment   | Protection Structure     | IP20                                                                | IP20                                                      | IP20                                                                                            | IP20                                                           | IP20                                                                              |
|               | Storage Temperature      | -20° ~ 70° C (-4° ~ 158° F)                                         | -20° ~ 60° C (-4° ~ 140° F)                               | -20° ~ 60° C (-4° ~ 140° F)                                                                     | -20° ~ 60° C (-4° ~ 140° F)                                    | -20° ~ 60° C (-4° ~ 140° F)                                                       |
|               | Operating Temperature    | -10° ~ 50° C (14° ~ 122° F)                                         | 0° ~ 50° C (32° ~ 122° F)                                 | 0° ~ 50° C (32° ~ 122° F)                                                                       | 0° ~ 50° C (32° ~ 122° F)                                      | 0° ~ 50° C (32° ~ 122° F)                                                         |
|               | Relative Humidity        | 10% ~ 90% (non-condensing)                                          | 10% ~ 90% (non-condensing)                                | 10% ~ 90% (non-condensing)                                                                      | 10% ~ 90% (non-condensing)                                     | 10% ~ 90% (non-condensing)                                                        |
| Certificate   | CE                       | CE marked                                                           | CE marked                                                 | CE marked                                                                                       | CE marked                                                      | CE marked                                                                         |
|               | UL                       | cULus Listed                                                        | cULus Listed                                              | cULus Listed                                                                                    | cULus Listed                                                   | cULus Listed                                                                      |
| Software      |                          | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>Built-in CODESYS    | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)              | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)                                                    | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)                   | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)                                      |

# Dimensions

| cMT-CTRL01  | cMT-G01     | cMT-G02     | cMT-G03     | cMT-G04     |
|-------------|-------------|-------------|-------------|-------------|
|             |             |             |             |             |
| Front View  | Front View  | Front View  | Front View  | Front View  |
|             |             |             |             |             |
| Side View   | Side View   | Side View   | Side View   | Side View   |
|             |             |             |             |             |
| Top View    | Top View    | Top View    | Top View    | Top View    |
|             |             |             |             |             |
| Bottom View | Bottom View | Bottom View | Bottom View | Bottom View |

# Specification



|               | Model                                                                                                       | cMT-SVR-100                                           | cMT-SVR-102                                | cMT-SVR-200                                                                                     | cMT-SVR-202                                | cMT-FHDX-220                                                                   | cMT-iM21                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Display       | Display                                                                                                     | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | 21.5" IPS                                                                              |
|               | Resolution                                                                                                  | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | Full HD 1920 x 1080                                                                    |
|               | Brightness (cd/ m²)                                                                                         | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | 250                                                                                    |
|               | Contrast Ratio                                                                                              | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | 1000: 1                                                                                |
|               | Backlight Type                                                                                              | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | LED                                                                                    |
|               | Backlight Life Time                                                                                         | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | > 50,000 hrs.                                                                          |
|               | Colors                                                                                                      | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | 16.7M                                                                                  |
|               | LCD Viewing Angle (T/B/L/R)                                                                                 | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | 89/89/89/89                                                                            |
|               | Pixel Pitch (mm)                                                                                            | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | 0.2479 (H) x 0.2479 (V)                                                                |
| Touch Panel   | Type                                                                                                        | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | Tempered Glass, Capacitive Type<br>( Supports 2-Finger Gestures )<br>Hardness Scale 6H |
| Memory        | Flash                                                                                                       | 256 MB                                                |                                            | 256 MB                                                                                          |                                            | 4 GB                                                                           | N/A                                                                                    |
|               | RAM                                                                                                         | 256 MB                                                |                                            | 256 MB                                                                                          |                                            | 1 GB                                                                           | N/A                                                                                    |
| Processor     |                                                                                                             | 32-bit RISC 600MHz                                    |                                            | 32-bit RISC 600MHz                                                                              |                                            | Quad-core 32-bit RISC 1.6GHz                                                   | N/A                                                                                    |
| I/O Port      | SD Card Slot                                                                                                | SD/SDHC                                               |                                            | SD/SDHC                                                                                         |                                            | N/A                                                                            | N/A                                                                                    |
|               | USB Host                                                                                                    | USB 2.0 x 1                                           |                                            | USB 2.0 x 1                                                                                     |                                            | USB 2.0 x 1                                                                    | USB 2.0 x 1                                                                            |
|               | USB Client                                                                                                  | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | USB 2.0 x 1 (Micro USB)                                                                |
|               | Ethernet                                                                                                    | 10/100/1000 Base-T x 2                                |                                            | 10/100/1000 Base-T x 1                                                                          |                                            | LAN 1: 10/100/1000 Base-T x 1<br>LAN 2: 10/100 Base-T x 1                      | N/A                                                                                    |
|               | Wi-Fi                                                                                                       | N/A                                                   |                                            | IEEE 802.11 b/g/n<br>802.11b: max 18.01 dBm<br>802.11g: max 11.02 dBm<br>802.11n: max 12.20 dBm |                                            | N/A                                                                            | N/A                                                                                    |
|               | COM Port                                                                                                    | COM1: RS-232<br>COM2: RS-485 2W/4W<br>COM3: RS-485 2W |                                            | COM1: RS-232<br>COM2: RS-485 2W/4W<br>COM3: RS-485 2W                                           |                                            | COM1: RS-232<br>COM2: RS-485 2W/4W<br>COM3: RS-485 2W                          | N/A                                                                                    |
|               | HDMI                                                                                                        | N/A                                                   |                                            | N/A                                                                                             |                                            | Customizable (max. resolution 1920 x 1080)                                     | Yes ( Video Input )                                                                    |
|               | Recommended Resolutions<br>(Please use these recommended screen resolutions to avoid compatibility issues.) | N/A                                                   |                                            | N/A                                                                                             |                                            | 720x480<br>720x576<br>800x600<br>1024x768<br>1280x720<br>1366x768<br>1920x1080 | N/A                                                                                    |
|               | Audio Output                                                                                                | N/A                                                   |                                            | N/A                                                                                             |                                            | HDMI Audio Output                                                              | N/A                                                                                    |
| RTC           |                                                                                                             | Built-in                                              |                                            | Built-in                                                                                        |                                            | Built-in                                                                       | N/A                                                                                    |
|               | Input Power                                                                                                 | 24±20%VDC                                             |                                            | 10.5~28VDC                                                                                      |                                            | 24±20%VDC                                                                      | 24±20%VDC                                                                              |
|               | Power Isolation                                                                                             | Built-in                                              |                                            | Built-in                                                                                        |                                            | Built-in                                                                       | Built-in                                                                               |
|               | Power Consumption                                                                                           | 230mA@24VDC                                           |                                            | 1000mA@12VDC ; 450mA@24VDC                                                                      |                                            | 850mA@24VDC                                                                    | 1.56A@24VDC                                                                            |
|               | Voltage Resistance                                                                                          | 500VAC (1 min.)                                       |                                            | 500VAC (1 min.)                                                                                 |                                            | 500VAC (1 min.)                                                                | 500VAC (1 min.)                                                                        |
|               | Isolation Resistance                                                                                        | Exceed 50MΩ @ 500VDC                                  |                                            | Exceed 50MΩ @ 500VDC                                                                            |                                            | Exceed 50MΩ @ 500VDC                                                           | Exceed 50MΩ @ 500VDC                                                                   |
| Specification | Vibration Endurance                                                                                         | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)       |                                            | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                                 |                                            | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                | 10 to 25Hz<br>(X, Y, Z direction 2G 30 minutes)                                        |
|               | PCB Coating                                                                                                 | Yes                                                   |                                            | Yes                                                                                             |                                            | Yes                                                                            | Yes                                                                                    |
|               | Enclosure                                                                                                   | Plastic                                               |                                            | Plastic                                                                                         |                                            | Plastic                                                                        | Aluminum                                                                               |
|               | Dimensions WxHxD                                                                                            | 27 x 130 x 115 mm                                     |                                            | 27 x 130 x 115 mm                                                                               |                                            | 29.8 x 130 x 115 mm                                                            | 546 x 354 x 56.2 mm                                                                    |
|               | Panel Cutout                                                                                                | N/A                                                   |                                            | N/A                                                                                             |                                            | N/A                                                                            | 532 x 340 mm                                                                           |
|               | Weight                                                                                                      | Approx. 0.18 kg                                       |                                            | Approx. 0.18 kg                                                                                 |                                            | Approx. 0.24 kg                                                                | Approx. 4.9 kg                                                                         |
| Environment   | Mount                                                                                                       | 35 mm DIN rail mounting                               |                                            | 35 mm DIN rail mounting                                                                         |                                            | 35 mm DIN rail mounting                                                        | Panel mount, VESA mount 100 x 100 mm                                                   |
|               | Protection Structure                                                                                        | IP20                                                  |                                            | IP20                                                                                            |                                            | IP20                                                                           | NEMA4 / IP65 Compliant Front Panel*                                                    |
|               | Storage Temperature                                                                                         | -20° ~ 70° C (-4° ~ 158° F)                           |                                            | -20° ~ 70° C (-4° ~ 158° F)                                                                     |                                            | -20° ~ 60° C (-4° ~ 140° F)                                                    | -20° ~ 60° C (-4° ~ 140° F)                                                            |
|               | Operating Temperature                                                                                       | -20° ~ 55° C (-4° ~ 131° F)                           |                                            | -10° ~ 55° C (14° ~ 131° F)                                                                     |                                            | 0° ~ 50° C (32° ~ 122° F)                                                      | 0° ~ 50° C (32° ~ 122° F)                                                              |
|               | Relative Humidity                                                                                           | 10% ~ 90% (non-condensing)                            |                                            | 10% ~ 90% (non-condensing)                                                                      |                                            | 10% ~ 90% (non-condensing)                                                     | 10% ~ 90% (non-condensing)                                                             |
| Certificate   | CE                                                                                                          | CE marked                                             |                                            | CE marked                                                                                       |                                            | CE marked                                                                      | CE marked                                                                              |
|               | UL                                                                                                          | cULus Listed                                          |                                            | cULus Listed                                                                                    |                                            | cULus Listed                                                                   | cULus Listed                                                                           |
| Software      |                                                                                                             | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)          | EasyBuilder Pro<br>Built-in EasyAccess 2.0 | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)                                                    | EasyBuilder Pro<br>Built-in EasyAccess 2.0 | EasyBuilder Pro<br>EasyAccess 2.0 (Optional)<br>CODESYS (Optional)             | N/A                                                                                    |

\*cMT-iM21: Protection Structure IP65 can be expected when waterproof gasket is properly installed.

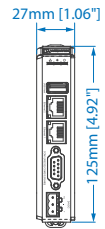
# Dimensions

cMT-SVR100 / cMT-SVR102

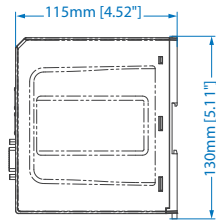
cMT-SVR-200 / cMT-SVR-202

cMT-FHDX-220

cMT-iM21



Front View



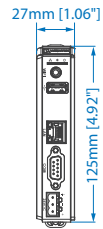
Side View



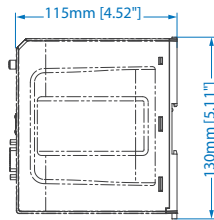
Top View



Bottom View



Front View



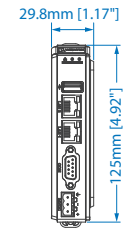
Side View



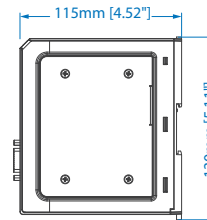
Top View



Bottom View



Front View



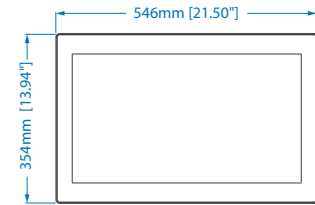
Side View



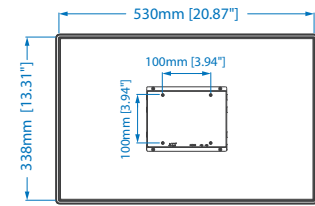
Top View



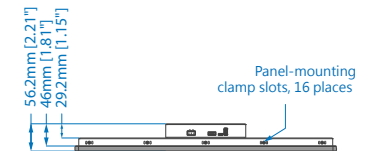
Bottom View



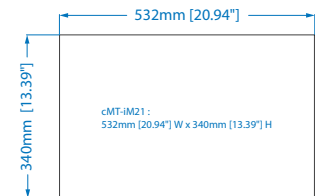
Front View



Rear View



Bottom View



Cutout Dimensions

# Specification

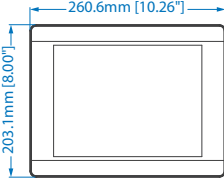
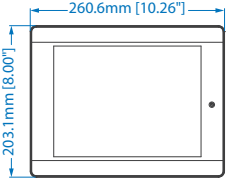
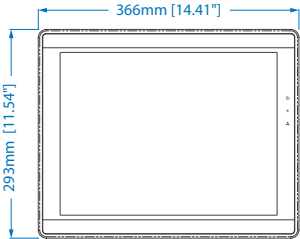
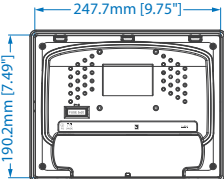
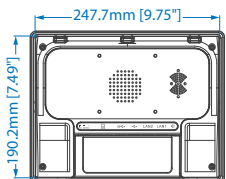
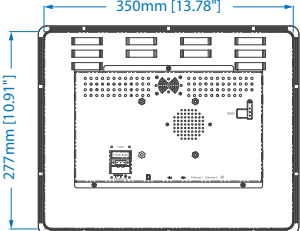
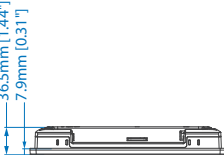
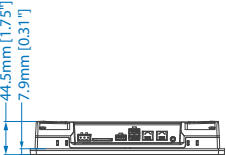
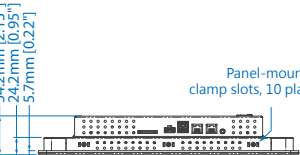
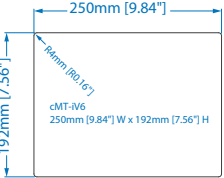
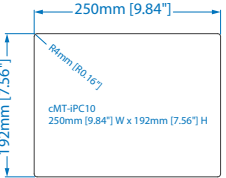
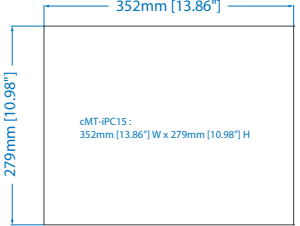


|               | Model                       | cMT-iV6                                      | cMT-iPC10                                                                              | cMT-iPC15                                                                              |
|---------------|-----------------------------|----------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Display       | Display                     | 9.7" TFT                                     | 9.7" TFT                                                                               | 15" IPS                                                                                |
|               | Resolution                  | 1024 x 768                                   | 1024 x 768                                                                             | 1024 x 768                                                                             |
|               | Brightness (cd/ m' )        | 350                                          | 350                                                                                    | 400                                                                                    |
|               | Contrast Ratio              | 500: 1                                       | 500: 1                                                                                 | 1000: 1                                                                                |
|               | Backlight Type              | LED                                          | LED                                                                                    | LED                                                                                    |
|               | Backlight Life Time         | > 30,000 hrs.                                | > 30,000 hrs.                                                                          | > 50,000 hrs.                                                                          |
|               | Colors                      | 262K                                         | 262K                                                                                   | 16.2M                                                                                  |
|               | LCD Viewing Angle (T/B/L/R) | 60/70/70/70                                  | 60/70/70/70                                                                            | 89/89/89/89                                                                            |
| Touch Panel   | Pixel Pitch (mm)            | 0.192 (H) x 0.192 (V)                        | 0.129 (H) x 0.129 (V)                                                                  | 0.297(H) x 0.297(V)                                                                    |
|               | Type                        | 4-wire Resistive Type                        | 4-wire Resistive Type                                                                  | 4-wire Resistive Type                                                                  |
| Memory        | Accuracy                    | Active Area Length(X)±2%, Width(Y)±2%        | Active Area Length(X)±2%, Width(Y)±2%                                                  | Active Area Length(X)±2%, Width(Y)±2%                                                  |
|               | Flash                       | 4 GB                                         | 64 GB (SSD)                                                                            | 64 GB (SSD)                                                                            |
| Processor     | RAM                         | 1 GB                                         | 4 GB                                                                                   | 4 GB                                                                                   |
|               |                             | 32-bit RISC 1GHz                             | Intel Atom® E3827 processor                                                            | Intel Atom® E3827 processor                                                            |
| I/O Port      | SD Card Slot                | SD/SDHC                                      | SD/SDHC/SDXC                                                                           | SD/SDHC/SDXC                                                                           |
|               | USB Host                    | N/A                                          | USB 2.0 x 2 / USB 3.0 x 1                                                              | USB 2.0 x 2 / USB 3.0 x 1                                                              |
|               | Ethernet                    | 10/100/1000 Base-T x 1                       | 10/100/1000 Base-T x 2                                                                 | 10/100/1000 Base-T x 2                                                                 |
|               | Audio Output                | Built-in Mono Speaker                        | Built-in Mono Speaker<br>Audio Line Out - 3.5 mm jack x 1                              | Built-in Mono Speaker<br>Audio Line Out - 3.5 mm jack x 1                              |
| RTC           |                             | Built-in                                     | Built-in                                                                               | Built-in                                                                               |
| Power         | Input Power                 | 24±20%VDC                                    | 24±20%VDC                                                                              | 24±20%VDC                                                                              |
|               | Power Isolation             | Built-in                                     | Built-in                                                                               | Built-in                                                                               |
|               | Power Consumption           | 900mA@24VDC                                  | 1.5A@24VDC                                                                             | 2A@24VDC                                                                               |
|               | Voltage Resistance          | 500VAC (1 min.)                              | 500VAC (1 min.)                                                                        | 500VAC (1 min.)                                                                        |
|               | Isolation Resistance        | Exceed 50MΩ @ 500VDC                         | Exceed 50MΩ @ 500VDC                                                                   | Exceed 50MΩ @ 500VDC                                                                   |
|               | Vibration Endurance         | 10 to 25Hz (X, Y, Z direction 2G 30 minutes) | 10 to 25Hz (X, Y, Z direction 2G 30 minutes)                                           | 10 to 25Hz (X, Y, Z direction 2G 30 minutes)                                           |
| Specification | PCB Coating                 | Yes                                          | Yes                                                                                    | Yes                                                                                    |
|               | Enclosure                   | Plastic                                      | Plastic                                                                                | Aluminum                                                                               |
|               | Dimensions WxHxD            | 260.6 x 203.1 x 36.5 mm                      | 260.6 x 203.1 x 44.5 mm                                                                | 366 x 293 x 54.2 mm                                                                    |
|               | Panel Cutout                | 250 x 192 mm                                 | 250 x 192 mm                                                                           | 352 x 279 mm                                                                           |
|               | Weight                      | Approx. 0.92 kg                              | Approx. 1.1 kg                                                                         | Approx. 2.76 kg                                                                        |
|               | Mount                       | Panel mount, VESA mount 75 x 75 mm           | Panel mount, VESA mount 75 x 75 mm                                                     | Panel mount, VESA mount 75 x 75 mm                                                     |
| Environment   | Protection Structure        | NEMA4 / IP65 Compliant Front Panel           | UL Type 4X (indoor use only) / NEMA4 / IP65 Compliant Front Panel                      | UL Type 4X (indoor use only) / NEMA4 / IP65 Compliant Front Panel                      |
|               | Storage Temperature         | -20° ~ 60° C (-4° ~ 140° F)                  | -20° ~ 60° C (-4° ~ 140° F)                                                            | -20° ~ 70° C (-4° ~ 158° F)                                                            |
|               | Operating Temperature       | 0° ~ 50° C (32° ~ 122° F)                    | 0° ~ 50° C (32° ~ 122° F)                                                              | 0° ~ 50° C (32° ~ 122° F)                                                              |
|               | Relative Humidity           | 10% ~ 90% (non-condensing)                   | 10% ~ 90% (non-condensing)                                                             | 10% ~ 90% (non-condensing)                                                             |
| Certificate   | CE                          | CE marked                                    | CE marked                                                                              | CE marked                                                                              |
|               | UL                          |                                              | cULus Listed                                                                           | cULus Listed                                                                           |
| Software      |                             | cMT Viewer                                   | *Windows® 7 / Windows® 8.1 / Windows® 10 IoT Enterprise<br>(EasyLauncher + cMT Viewer) | *Windows® 7 / Windows® 8.1 / Windows® 10 IoT Enterprise<br>(EasyLauncher + cMT Viewer) |

\*cMT-iPC10/ cMT-iPC15: License of Windows OS is excluded.

\*Intel Atom is a trademark of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

# Dimensions

| cMT-iV6                                                                                                                                                                                        | cMT-iPC10                                                                                                                                                                                         | cMT-iPC15                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>260.6mm [10.26"]<br/>203.1mm [8.00"]</p>                                                                  |  <p>260.6mm [10.26"]<br/>203.1mm [8.00"]</p>                                                                    |  <p>366mm [14.41"]<br/>293mm [11.54"]</p>                                                              |
| Front View                                                                                                                                                                                     | Front View                                                                                                                                                                                        | Front View                                                                                                                                                                                |
|  <p>247.7mm [9.75"]<br/>190.2mm [7.49"]</p>                                                                   |  <p>247.7mm [9.75"]<br/>190.2mm [7.49"]</p>                                                                     |  <p>350mm [13.78"]<br/>277mm [10.91"]</p>                                                              |
| Rear View                                                                                                                                                                                      | Rear View                                                                                                                                                                                         | Rear View                                                                                                                                                                                 |
|  <p>36.5mm [1.44"]<br/>7.9mm [0.31"]</p>                                                                     |  <p>44.5mm [1.75"]<br/>7.9mm [0.31"]</p>                                                                       |  <p>54.2mm [2.13"]<br/>24.2mm [0.95"]<br/>5.7mm [0.22"]<br/>Panel-mounting clamp slots, 10 places</p> |
| Bottom View                                                                                                                                                                                    | Bottom View                                                                                                                                                                                       | Bottom View                                                                                                                                                                               |
|  <p>250mm [9.84"]<br/>192mm [7.56"]<br/>R4mm (R0.16")<br/>cMT-iV6<br/>250mm [9.84"] W x 192mm [7.56"] H</p> |  <p>250mm [9.84"]<br/>192mm [7.56"]<br/>R4mm (R0.16")<br/>cMT-iPC10<br/>250mm [9.84"] W x 192mm [7.56"] H</p> |  <p>352mm [13.86"]<br/>279mm [10.98"]<br/>cMT-iPC15:<br/>352mm [13.86"] W x 279mm [10.98"] H</p>     |
| Cutout Dimensions                                                                                                                                                                              | Cutout Dimensions                                                                                                                                                                                 | Cutout Dimensions                                                                                                                                                                         |

# iR Series



## Communication Interface Specifications

| Model                             |                          | iR-ETN                                                                                                                        | iR-COP                                                                                                                        | iR-ECAT                                                                                                                       |
|-----------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Expansion I/O module              | Number of Bus Terminals  | Depends on Power Consumption                                                                                                  | Depends on Power Consumption                                                                                                  | Depends on Power Consumption                                                                                                  |
|                                   | Digital Input Point      | Max. 256                                                                                                                      | Max. 256                                                                                                                      | Max. 256                                                                                                                      |
|                                   | Digital Output Point     | Max. 128                                                                                                                      | Max. 128                                                                                                                      | Max. 128                                                                                                                      |
|                                   | Analog Input Channel     | Max. 64                                                                                                                       | Max. 64                                                                                                                       | Max. 64                                                                                                                       |
|                                   | Analog Output Channel    | Max. 64                                                                                                                       | Max. 64                                                                                                                       | Max. 64                                                                                                                       |
| Data Transfer Rate                |                          | 10/100 Mbps                                                                                                                   | 50k~1 Mbps                                                                                                                    | 100 Mbps                                                                                                                      |
| Max. Number of TCP/IP Connections |                          | 8 Connections                                                                                                                 | -                                                                                                                             | -                                                                                                                             |
| Protocol                          |                          | Modbus TCP/IP Server, EtherNet/IP adapter                                                                                     | CANopen Slave                                                                                                                 | EtherCAT Slave                                                                                                                |
| Isolation                         |                          | Network to Logic Isolation : Yes                                                                                              | CAN bus Isolation : Yes                                                                                                       | Network to Logic Isolation : Yes                                                                                              |
| Power                             | Power Supply             | 24 VDC (-15%/+20%)                                                                                                            | 24 VDC (-15%/+20%)                                                                                                            | 24 VDC (-15%/+20%)                                                                                                            |
|                                   | Power Dissipation        | Nominal 100mA@24VDC                                                                                                           | Nominal 100mA@24VDC                                                                                                           | Nominal 100mA @ 24VDC                                                                                                         |
|                                   | Current for Internal Bus | Max 2A@5VDC                                                                                                                   | Max 2A@5VDC                                                                                                                   | Max 2A@5VDC                                                                                                                   |
|                                   | Current Consumption      | 220mA@5VDC                                                                                                                    | 170mA@5VDC                                                                                                                    | 270mA@5VDC                                                                                                                    |
|                                   | Power Isolation          | Yes                                                                                                                           | Yes                                                                                                                           | Yes                                                                                                                           |
|                                   | Back-up Fuse             | ≤ 1.6A Self-recovery                                                                                                          | ≤ 1.6A Self-recovery                                                                                                          | ≤ 1.6A Self-recovery                                                                                                          |
|                                   | PCB Coating              | Yes                                                                                                                           | Yes                                                                                                                           | Yes                                                                                                                           |
|                                   | Enclosure                | Plastic                                                                                                                       | Plastic                                                                                                                       | Plastic                                                                                                                       |
|                                   | Dimensions WxHxD         | 27 x 109 x 81 mm                                                                                                              | 27 x 109 x 81 mm                                                                                                              | 27 x 109 x 81 mm                                                                                                              |
|                                   | Weight                   | Approx. 0.15 kg                                                                                                               | Approx. 0.15 kg                                                                                                               | Approx. 0.15 kg                                                                                                               |
| Specification                     | Mount                    | 35mm DIN rail mounting                                                                                                        | 35mm DIN rail mounting                                                                                                        | 35mm DIN rail mounting                                                                                                        |
|                                   | Protection Structure     | IP20                                                                                                                          | IP20                                                                                                                          | IP20                                                                                                                          |
|                                   | Storage Temperature      | -20° ~ 70° C (-4° ~ 158° F)                                                                                                   | -20° ~ 70° C (-4° ~ 158° F)                                                                                                   | -20° ~ 70° C (-4° ~ 158° F)                                                                                                   |
|                                   | Operating Temperature    | 0° ~ 55° C (32° ~ 131° F)                                                                                                     | 0° ~ 55° C (32° ~ 131° F)                                                                                                     | 0° ~ 55° C (32° ~ 131° F)                                                                                                     |
|                                   | Relative Humidity        | 10% ~ 90% (non-condensing)                                                                                                    | 10% ~ 90% (non-condensing)                                                                                                    | 10% ~ 90% (non-condensing)                                                                                                    |
| Environment                       | EMC Immunity             | Conforms to<br>EN 55032: 2012+AC: 2013, Class A<br>EN 61000-6-4: 2007+A1:2011<br>EN 55024: 2010+A1: 2015<br>EN 61000-6-2:2005 | Conforms to<br>EN 55032: 2012+AC: 2013, Class A<br>EN 61000-6-4: 2007+A1:2011<br>EN 55024: 2010+A1: 2015<br>EN 61000-6-2:2005 | Conforms to<br>EN 55032: 2012+AC: 2013, Class A<br>EN 61000-6-4: 2007+A1:2011<br>EN 55024: 2010+A1: 2015<br>EN 61000-6-2:2005 |
|                                   | UL                       | cULus Listed                                                                                                                  | cULus Listed                                                                                                                  | cULus Listed                                                                                                                  |
|                                   |                          |                                                                                                                               |                                                                                                                               |                                                                                                                               |
|                                   |                          |                                                                                                                               |                                                                                                                               |                                                                                                                               |
|                                   |                          |                                                                                                                               |                                                                                                                               |                                                                                                                               |
| Certification                     |                          |                                                                                                                               |                                                                                                                               |                                                                                                                               |

## Digital Input/Output Specifications

| Model                    |                       | iR-DI16-K                                                                                                               | iR-DM16-P                                             | iR-DM16-N                                             | iR-DQ16-P                               | iR-DQ16-N                               | iR-DQ08-R                                       |
|--------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------------------|
| Input Logic              |                       | Sink or Source                                                                                                          | Sink or Source                                        | Sink or Source                                        | N/A                                     | N/A                                     | N/A                                             |
| Number of Inputs         |                       | 16                                                                                                                      | 8                                                     | 8                                                     | 0                                       | 0                                       | 0                                               |
| Output Logic             |                       | N/A                                                                                                                     | Source                                                | Sink                                                  | Source                                  | Sink                                    | Relay                                           |
| Number of Outputs        |                       | 0                                                                                                                       | 8                                                     | 8                                                     | 16                                      | 16                                      | 8                                               |
| Current Consumption      |                       | 83mA@5VDC                                                                                                               | 130mA@5VDC                                            | 130mA@5VDC                                            | 196mA@5VDC                              | 205mA@5VDC                              | 220mA@5VDC                                      |
| HIGH Level Input Voltage |                       | 15~28VDC                                                                                                                | 15~28VDC                                              | 15~28VDC                                              | N/A                                     | N/A                                     | N/A                                             |
| LOW Level Input Voltage  |                       | 0~5 VDC                                                                                                                 | 0~5 VDC                                               | 0~5 VDC                                               | N/A                                     | N/A                                     | N/A                                             |
| Output Voltage           |                       | N/A                                                                                                                     | 11~28VDC                                              | 11~28VDC                                              | 11~28VDC                                | 11~28VDC                                | 250VAC/ 30VDC                                   |
| Output Current           |                       | N/A                                                                                                                     | 0.5A per channel (Max 4A)                             | 0.5A per channel (Max 4A)                             | 0.5A per channel (Max 4A)               | 0.5A per channel (Max 4A)               | 2A per channel (Max 8A)                         |
| Isolation                |                       | Input: Optical Isolation<br>Output: N/A                                                                                 | Input: Optical Isolation<br>Output: Optical Isolation | Input: Optical Isolation<br>Output: Optical Isolation | Input: N/A<br>Output: Optical Isolation | Input: N/A<br>Output: Optical Isolation | Input: N/A<br>Output: Electromagnetic Isolation |
| Specification            | Enclosure             | Plastic                                                                                                                 |                                                       |                                                       |                                         |                                         |                                                 |
|                          | Dimensions WxHxD      | 27 x 109 x 81 mm                                                                                                        |                                                       |                                                       |                                         |                                         |                                                 |
|                          | Weight                | Approx. 0.12 kg                                                                                                         |                                                       |                                                       |                                         |                                         | Approx. 0.13 kg                                 |
|                          | Mount                 | 35mm DIN rail mounting                                                                                                  |                                                       |                                                       |                                         |                                         |                                                 |
| Environment              | Protection Structure  | IP20                                                                                                                    |                                                       |                                                       |                                         |                                         |                                                 |
|                          | Storage Temperature   | -20° ~ 70° C (-4° ~ 158° F)                                                                                             |                                                       |                                                       |                                         |                                         |                                                 |
|                          | Operating Temperature | 0° ~ 55° C (32° ~ 131° F)                                                                                               |                                                       |                                                       |                                         |                                         |                                                 |
|                          | Relative Humidity     | 10% ~ 90% (non-condensing)                                                                                              |                                                       |                                                       |                                         |                                         |                                                 |
| Connection               | Cross-section         | AWG 28-16                                                                                                               |                                                       |                                                       |                                         |                                         | AWG 24-16                                       |
| Certification            | EMC Immunity          | Conforms to<br>EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005 |                                                       |                                                       |                                         |                                         |                                                 |
|                          | UL                    | cULus Listed                                                                                                            |                                                       |                                                       |                                         |                                         |                                                 |

## Analog Input/Output Specifications

| Model                    |                       | iR-AI04-VI                                                                                                              | iR-AM06-VI                            | iR-AQ04-VI                            |
|--------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|
| Number of Analog Inputs  |                       | 4 (±10V/ ±20mA)                                                                                                         | 4 (±10V/ ±20mA)                       | 0                                     |
| Number of Analog outputs |                       | 0                                                                                                                       | 2 (±10V/ ±20mA)                       | 4 (±10V/ ±20mA)                       |
| Current Consumption      |                       | 70mA@5VDC                                                                                                               | 70mA@5VDC                             | 65mA@5VDC                             |
| Analog Power Supply      |                       | 24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)                                                                                   | 24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%) | 24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%) |
| Specification            | PCB Coating           | Yes                                                                                                                     |                                       |                                       |
|                          | Enclosure             | Plastic                                                                                                                 |                                       |                                       |
|                          | Dimensions WxHxD      | 27 x 109 x 81 mm                                                                                                        |                                       |                                       |
|                          | Weight                | Approx. 0.12 kg                                                                                                         |                                       |                                       |
|                          | Mount                 | 35mm DIN rail mounting                                                                                                  |                                       |                                       |
| Environment              | Protection Structure  | IP20                                                                                                                    |                                       |                                       |
|                          | Storage Temperature   | -20° ~ 70° C (-4° ~ 158° F)                                                                                             |                                       |                                       |
|                          | Operating Temperature | 0° ~ 55° C (32° ~ 131° F)                                                                                               |                                       |                                       |
|                          | Relative Humidity     | 10% ~ 90% (non-condensing)                                                                                              |                                       |                                       |
| Connection               | Cross-section         | AWG 28-16                                                                                                               |                                       |                                       |
| Certification            | EMC Immunity          | Conforms to<br>EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005 |                                       |                                       |
|                          | UL                    | cULus Listed                                                                                                            |                                       |                                       |

Temperature Specifications



| Model                    |                       | iR-AI04-TR                                                                                                              |
|--------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Number of Input Channels |                       | 4 (RTD/Thermocouple)                                                                                                    |
| Current Consumption      |                       | 65mA@5VDC                                                                                                               |
| Analog Power Supply      |                       | 24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)                                                                                   |
| Specification            | PCB Coating           | Yes                                                                                                                     |
|                          | Enclosure             | Plastic                                                                                                                 |
|                          | Dimensions WxHxD      | 27 x 109 x 81 mm                                                                                                        |
|                          | Weight                | Approx. 0.12 kg                                                                                                         |
|                          | Mount                 | 35mm DIN rail mounting                                                                                                  |
| Environment              | Protection Structure  | IP20                                                                                                                    |
|                          | Storage Temperature   | -20° ~ 70° C (-4° ~ 158° F)                                                                                             |
|                          | Operating Temperature | 0° ~ 55° C (32° ~ 131° F)                                                                                               |
|                          | Relative Humidity     | 10% ~ 90% (non-condensing)                                                                                              |
| Connection               | Cross-section         | AWG 28-16                                                                                                               |
| Certification            | EMC Immunity          | Conforms to<br>EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005 |
|                          | UL                    | cULus Listed                                                                                                            |



Motion Control Specifications

| Model         |                   | iR-PU01-P                                                                                                |                                                        |
|---------------|-------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Input Logic   | Number of Inputs  | Digital input/ output                                                                                    | Differential input/ output                             |
|               |                   | Sink Input                                                                                               | Differential Input                                     |
|               |                   | 4                                                                                                        | 3 (A/B/Z phase )                                       |
|               |                   | Source Output                                                                                            | Differential Output                                    |
|               |                   | 4                                                                                                        | 2(A/B phase )                                          |
|               |                   | 15~28 VDC                                                                                                | -                                                      |
|               |                   | 0~5 VDC                                                                                                  | -                                                      |
|               |                   | 24 VDC, 5 mA                                                                                             | Meets the Requirements of ANSI Standards TIA/EIA-485-A |
|               |                   | 3 KΩ                                                                                                     | -                                                      |
|               |                   | Red LED Input State                                                                                      |                                                        |
| Output Logic  | Number of Outputs | 24VDC                                                                                                    | Meets the Requirements of ANSI Standards TIA/EIA-485-A |
|               |                   | 50 mA                                                                                                    |                                                        |
|               |                   | 200KHz                                                                                                   | 2MHz                                                   |
|               |                   | 40KHz                                                                                                    | 2MHz                                                   |
|               |                   |                                                                                                          |                                                        |
|               |                   |                                                                                                          |                                                        |
|               |                   |                                                                                                          |                                                        |
|               |                   |                                                                                                          |                                                        |
|               |                   |                                                                                                          |                                                        |
|               |                   |                                                                                                          |                                                        |
| Specification | Number of Axis    | 1- Axis                                                                                                  |                                                        |
|               |                   | PCB Coating                                                                                              | Yes                                                    |
|               |                   | Enclosure                                                                                                | Plastic                                                |
|               |                   | Dimensions WxHxD                                                                                         | 27 x 109 x 81 mm                                       |
|               |                   | Weight                                                                                                   | Approx. 0.12 kg                                        |
| Environment   | Mount             | 35mm DIN rail mounting                                                                                   |                                                        |
|               |                   | Protection Structure                                                                                     | IP20                                                   |
|               |                   | Storage Temperature                                                                                      | -20° ~ 70° C (-4° ~ 158° F)                            |
|               |                   | Operating Temperature                                                                                    | 0° ~ 55° C (32° ~ 131° F)                              |
|               |                   | Relative Humidity                                                                                        | 10% ~ 90% (non-condensing)                             |
| Connection    | Cross-section     | AWG 28-16                                                                                                |                                                        |
|               |                   | Conforms to                                                                                              |                                                        |
|               |                   | EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005 |                                                        |
| Certification | EMC Immunity      |                                                                                                          |                                                        |
|               |                   | cULus Listed                                                                                             |                                                        |

## Quick Feature Comparison

Standard Model Advanced Model

|                                            | cMT2078X | cMT3072X<br>cMT3072XH | cMT3092X         | cMT2108X | cMT2158X | cMT3152X         | cMT3161X | cMT3162X | cMT-FHDX-220 | cMT-SVR-100<br>cMT-SVR-200                                                               | Gateway<br>cMT-G01 / cMT-G02<br>cMT-G03 / cMT-G04 | cMT-CTRL01 |
|--------------------------------------------|----------|-----------------------|------------------|----------|----------|------------------|----------|----------|--------------|------------------------------------------------------------------------------------------|---------------------------------------------------|------------|
| Audio Output                               |          |                       | ●                |          | ●        | ●                | ●        | ●        | via HDMI     |                                                                                          |                                                   |            |
| Wi-Fi                                      |          |                       |                  |          |          |                  |          |          |              | cMT-SVR-200                                                                              | cMT-G02                                           |            |
| CAN Bus                                    |          | ●                     | ●                |          |          | ●                |          | ●        |              |                                                                                          |                                                   |            |
| Siemens MPI                                |          | cMT3072XH             | ●                |          |          | ●                |          | ●        | ●            | ●                                                                                        | ●                                                 | ●          |
| Vibration Feedback                         |          |                       |                  |          |          |                  |          | ●        |              |                                                                                          |                                                   |            |
| Touch Gesture                              |          |                       |                  |          |          | ●                | ●        | ●        |              |                                                                                          |                                                   |            |
| 3G/4G Dongle                               | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            | ●                                                                                        |                                                   |            |
| cMT Viewer                                 | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            | ●                                                                                        |                                                   |            |
| EasyWeb 2.0                                | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            |                                                                                          |                                                   |            |
| WebView                                    | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            |                                                                                          |                                                   |            |
| VNC Server                                 | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            |                                                                                          |                                                   |            |
| Barcode Scanner (Android)                  |          | ●                     | ●                |          |          | ●                |          | ●        | ●            | ●                                                                                        |                                                   |            |
| Event Bar Chart                            |          | ●                     | ●                |          |          | ●                |          | ●        | ●            | ●                                                                                        |                                                   |            |
| IP Camera/Media Player                     | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            |                                                                                          |                                                   |            |
| Picture View<br>File Browser<br>PDF Reader | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            |                                                                                          |                                                   |            |
| PLC Web Browser                            |          | ●                     | ●                |          |          | ●                |          | ●        |              |                                                                                          |                                                   |            |
| Energy Demand                              |          | ●                     | ●                |          |          | ●                |          | ●        | ●            | ●                                                                                        |                                                   |            |
| MQTT                                       | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            | ●                                                                                        | ●                                                 | ●          |
| OPC UA Client                              | ●        | ●                     | ●                | ●        | ●        | ●                | ●        | ●        | ●            | ●                                                                                        | ●                                                 | ●          |
| OPC UA Server                              |          | ●                     | ●                |          |          | ●                |          | ●        | Optional     | Optional                                                                                 | ●                                                 | ●          |
| Database Server                            |          | ●                     | ●                |          |          | ●                |          | ●        | ●            | ●                                                                                        | ●                                                 | ●          |
| SQL Query                                  |          | ●                     | ●                |          |          | ●                |          | ●        | ●            | ●                                                                                        | ● *                                               | ● *        |
| CODESYS                                    | Optional | Optional              | Optional         | Optional | Optional | Optional         |          | Optional | Optional     |                                                                                          |                                                   | ●          |
| EasyAccess 2.0                             | Optional | Optional              | Built-in License | Optional | Optional | Built-in License | Optional | Optional | Optional     | cMT-SVR-100<br>cMT-SVR-200<br>Optional<br>cMT-SVR-102<br>cMT-SVR-202<br>Built-in License | Optional                                          | Optional   |

\*Applicable software version: EasyBuilder Pro V6.05.02 or later.

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## Weintek

Since the foundation of the company in October of 1995, Weintek Labs., Inc. has been committing itself to being a leading-edge designer and manufacturer of graphic operator interfaces, also known as HMI (Human Machine Interfaces), in Taiwan. We took our rich experience as HMI specialists and set the HMI product standard with state-of-the-art technology, efficient manufacturing, conscientious and careful testing, and global specialized support.

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