



# IIoT Series

Edge Computing & Smart Manufacturing

# 1

## cMT X Series IIoT Edge Computing

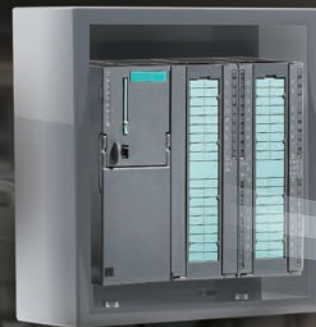
A major HMI upgrade that not only retains features of the predecessors but also integrates OT with the IIoT.

### 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

Supports Modbus, CANopen, EtherNet/IP and EtherCAT

300+ Protocols Supported

### 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.



IIoT Platform

MQTT  
OPC UA  
Modbus



- ▶ cMT3152X / cMT3161X / cMT3162X supports user-configurable touch gesture feature with its IPS, capacitive type multi-touch screen.
- ▶ cMT3162X supports vibration feedback for event alerts and touch operation.

# Gateway 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.

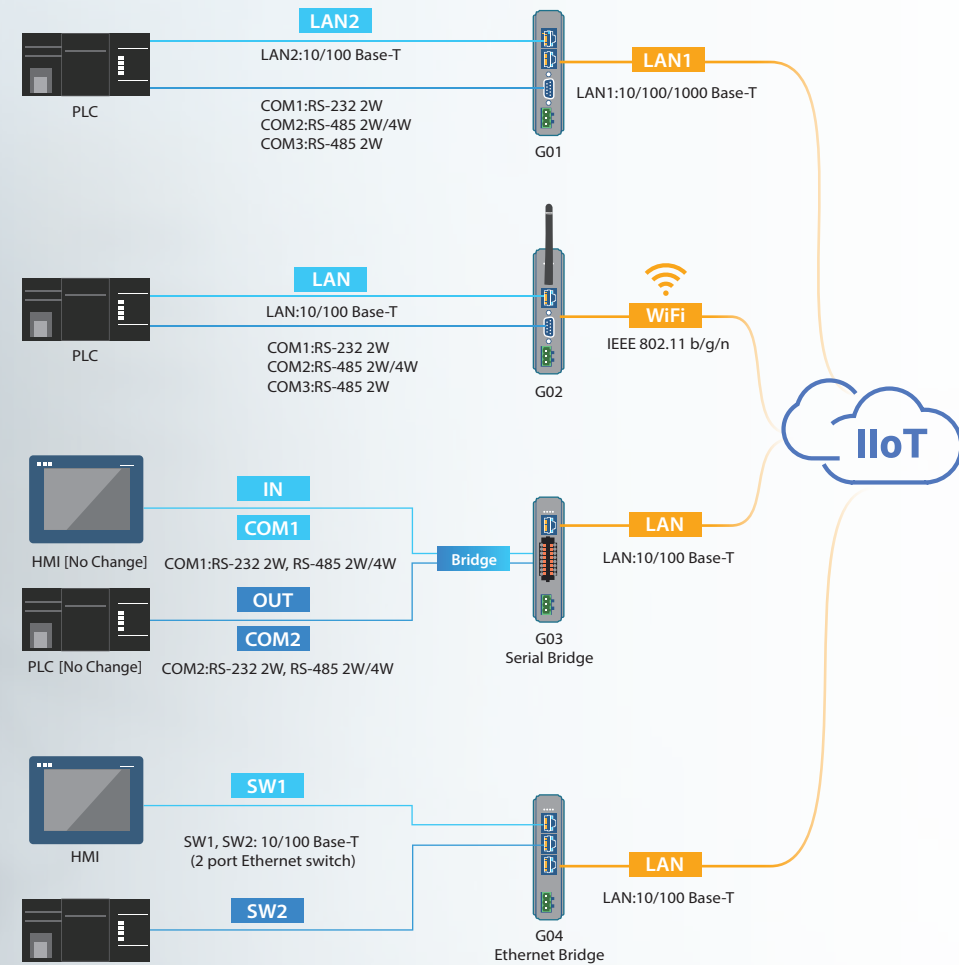
## 3 Major Industrial Communication Protocols



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



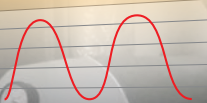
EasyBuilder Pro | CODESYS

### cMT-CTRL01

An IIoT Programmable Logic Controller that integrates CODESYS and Gateway.

Heater Portion Valve

SV 41.19 °C  
PV 41.12 °C



### 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

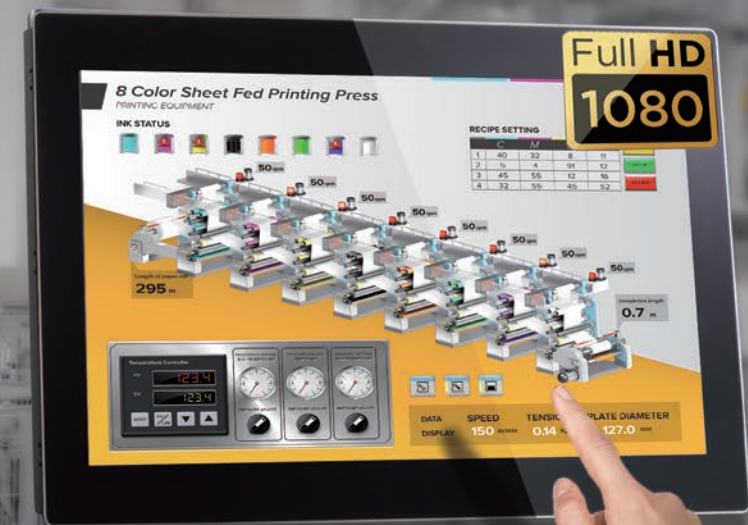


- ▶ Built-in HDMI interface and adjustable resolution up to 1920x1080
- ▶ Supports customized resolution for 16:9 / 4:3 LCD monitor
- ▶ Support IIoT Protocol: MQTT



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.

# 5 Smart HMI

## EasyLauncher / cMT Viewer

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



**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.



**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

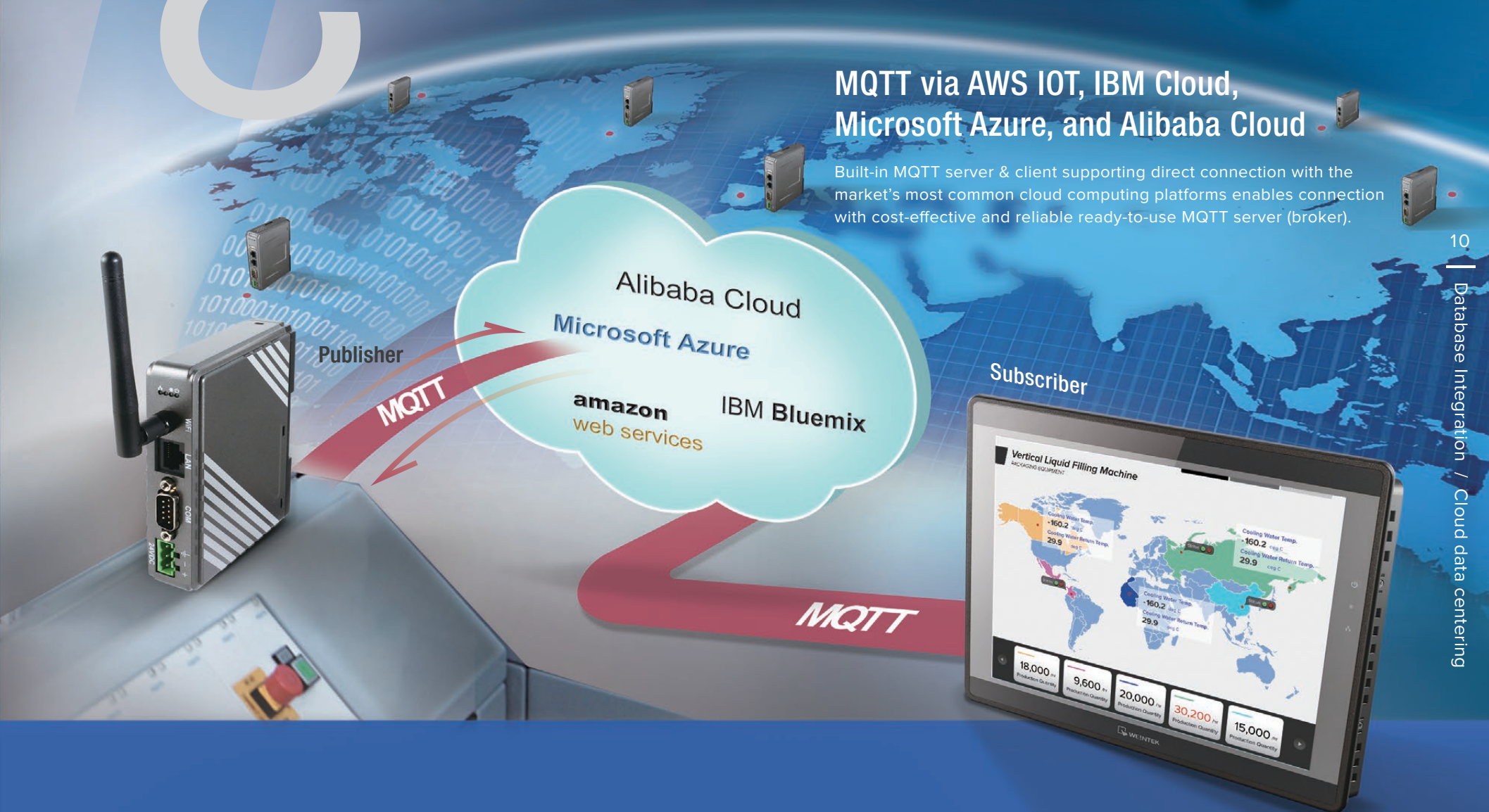


- Shared recipes**  
Access or manage recipes on database server.
- History logs**  
Transfer sampling logs and event/alarm logs to database server.
- SQL Query**  
Use SQL language to access database, calculate statistics, filter or analyze data, and read/write records.

## 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



## MQTT via AWS IOT, IBM Cloud, Microsoft Azure, and Alibaba Cloud

Built-in MQTT server & client supporting direct connection with the market's most common cloud computing platforms enables connection with cost-effective and reliable ready-to-use MQTT server (broker).

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 \* Amazon Web Services is a trademark of Amazon.com, Inc. or its affiliates in the United States and/or other countries.

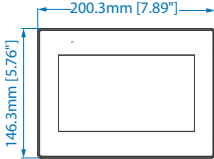
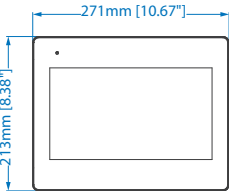
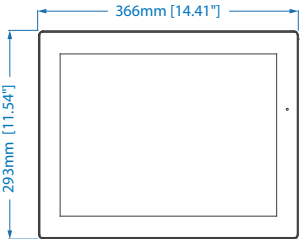
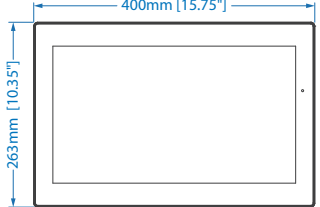
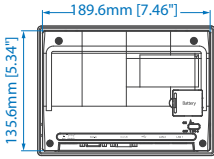
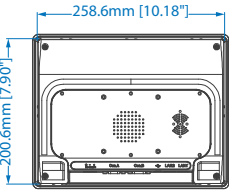
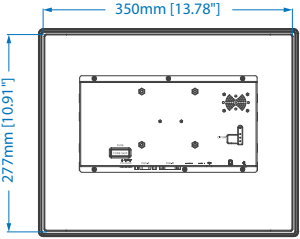
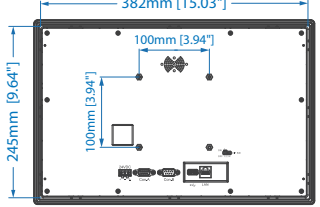
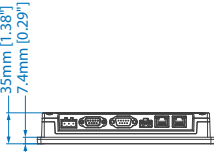
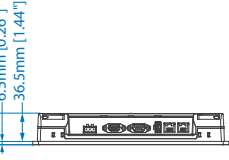
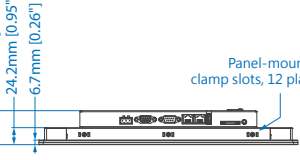
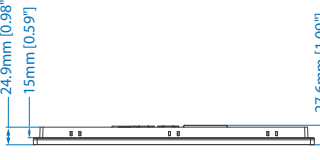
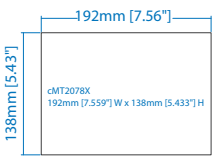
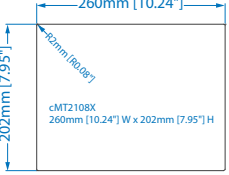
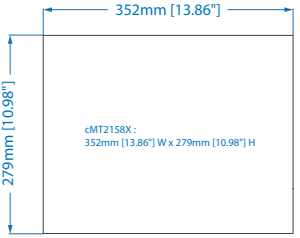
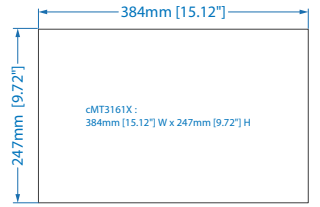
# Standard Model Specification



	Model	cMT2078X	cMT2108X	cMT2158X	cMT3161X
Display	Display	7" TFT	10.1" TFT	15" IPS	15.6" IPS
	Resolution	800 x 480	1024 x 600	1024 x 768	1920 x 1080
	Brightness (cd/ m <sup>2</sup> )	400	350	400	300
	Contrast Ratio	800: 1	500:1	1000: 1	800: 1
	Backlight Type	LED	LED	LED	LED
	Backlight Life Time	> 30,000 hrs.	> 50,000 hrs.	> 50,000 hrs.	> 30,000 hrs.
	Colors	16.7M	16.7M	16.2M	16.2M
	LCD Viewing Angle (T/B/L/R)	80/60/80/80	70/70/80/80	89/89/89/89	89/89/89/89
Pixel Pitch (mm)	0.1926(H) x 0.179(V)	0.2175 (H) x 0.2088 (V)	0.297(H) x 0.297(V)	0.17925(H) x 0.17925(V)	
Touch Panel	Type	4-wire Resistive Type	4-wire Resistive Type	4-wire Resistive Type	Tempered Glass, Capacitive Type* Hardness Scale 7H
	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%	N/A
Memory	Flash	4 GB	4 GB	4 GB	4 GB
	RAM	1 GB	1 GB	1 GB	1 GB
Processor		Quad-core 64-bit RISC 1.5GHz	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	N/A	N/A	SD/SDHC	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 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1	10/100 Base-T x 1
	COM Port	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W Con.B: COM1 RS-232 4W, COM3 RS-232 2W* MPI is not supported.	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W Con.B: COM1 RS-232 4W, COM3 RS-232 2W* MPI is not supported.	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W Con.B: COM1 RS-232 4W, COM3 RS-232 2W* MPI is not supported.	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W Con.B: COM1 RS-232 4W, COM3 RS-232 2W* MPI is not supported.
	RS-485 Dual Isolation	N/A	N/A	Yes	N/A
	Audio Output	N/A	N/A	Built-in Mono Speaker Audio Line Out - 3.5 mm jack x 1	Built-in Mono Speaker
	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	Built-in
Power Consumption		820mA@24VDC	1A@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)
Specification		PCB Coating	Yes	Yes	Yes
	Enclosure	Plastic	Plastic	Aluminum	Front bezel: Plastic, Rear Enclosure: Aluminum
	Dimensions WxHxD	200.3 x 146.3 x 35.0 mm	271 x 213 x 43 mm	366 x 293 x 48.2mm	400 x 263 x 27.6 mm
	Panel Cutout	192 x 138 mm	260 x 202 mm	352 x 279 mm	384 x 247 mm
	Weight	Approx. 0.6 kg	Approx. 1.2 kg	Approx. 2.6 kg	Approx. 1.6 kg
	Mount	Panel 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
Environment	Protection Structure	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)
	Operating Temperature	0° ~ 55° C (32° ~ 131° 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)
Certificate	CE	CE marked	CE marked	CE marked	CE marked
	UL	cULus Listed	cULus Listed	cULus Listed	
Software		EasyBuilder Pro EasyAccess 2.0 (Optional) CODESYS (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional) CODESYS (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional) CODESYS (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional)

\*cMT2078X/ cMT2108X/ cMT2158X/ cMT3161X: Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.

# Dimensions

cMT2078X	cMT2108X	cMT2158X	cMT3161X
 <p>200.3mm [7.89"] 146.3mm [5.76"]</p> <p>Front View</p>	 <p>271mm [10.67"] 213mm [8.38"]</p> <p>Front View</p>	 <p>366mm [14.41"] 293mm [11.54"]</p> <p>Front View</p>	 <p>400mm [15.75"] 263mm [10.35"]</p> <p>Front View</p>
 <p>189.6mm [7.46"] 135.6mm [5.34"]</p> <p>Rear View</p>	 <p>258.6mm [10.18"] 200.6mm [7.90"]</p> <p>Rear View</p>	 <p>350mm [13.78"] 277mm [10.91"]</p> <p>Rear View</p>	 <p>382mm [15.03"] 245mm [9.64"] 100mm [3.94"] 100mm [3.94"]</p> <p>Rear View</p>
 <p>35mm [1.38"] 7.4mm [0.29"]</p> <p>Bottom View</p>	 <p>43mm [1.69"] 6.5mm [0.26"] 36.5mm [1.44"]</p> <p>Bottom View</p>	 <p>48.2mm [1.90"] 24.2mm [0.95"] 6.7mm [0.26"]</p> <p>Panel-mounting clamp slots, 12 places</p> <p>Bottom View</p>	 <p>24.9mm [0.98"] 15mm [0.59"] 27.6mm [1.09"]</p> <p>Bottom View</p>
 <p>192mm [7.56"] 138mm [5.43"]</p> <p>cMT2078X 192mm [7.559"] W x 138mm [5.433"] H</p> <p>Cutout Dimensions</p>	 <p>260mm [10.24"] 202mm [7.95"] 42mm [1.654"]</p> <p>cMT2108X 260mm [10.24"] W x 202mm [7.95"] H</p> <p>Cutout Dimensions</p>	 <p>352mm [13.86"] 279mm [10.98"]</p> <p>cMT2158X : 352mm [13.86"] W x 279mm [10.98"] H</p> <p>Cutout Dimensions</p>	 <p>384mm [15.12"] 247mm [9.72"]</p> <p>cMT3161X : 384mm [15.12"] W x 247mm [9.72"] H</p> <p>Cutout Dimensions</p>



# Advanced Model Specification



Model		cMT-FHDX-220	cMT3072X	cMT3072XH	cMT3092X
Display	Display	N/A	7" TFT	7" IPS	9.7" TFT
	Resolution	N/A	800 x 480	1024 x 600	1024 x 768
	Brightness (cd/ m <sup>2</sup> )	N/A	400	450	350
	Contrast Ratio	N/A	800: 1	800: 1	500:1
	Backlight Type	N/A	LED	LED	LED
	Backlight Life Time	N/A	>30,000 hrs.	>25,000 hrs.	>30,000 hrs.
	Colors	N/A	16.7M	16.7M	262K
	LCD Viewing Angle (T/B/L/R)	N/A	80/60/80/80	85/85/85/85	60/70/70/70
Touch Panel	Pixel Pitch (mm)	N/A	0.1926(H) x 0.179(V)	0.1506(H) x 0.1432(V)	0.192(H) x 0.192(V)
	Type	N/A	4-wire Resistive Type	4-wire Resistive Type	4-wire Resistive Type
Memory	Accuracy	N/A	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
	RAM	1 GB	1 GB	1 GB	1 GB
Processor		Quad-core 32-bit RISC 1.6GHz	Quad-core 64-bit RISC 1.5GHz	Quad-core 64-bit RISC 1.5GHz	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
	Ethernet	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1
	COM Port	COM1: RS-232 COM2: RS-485 2W/4W COM3: RS-485 2W	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W* MPI is not supported.	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*
	CAN Bus	N/A	Yes	Yes	Yes
	HDMI	Customizable (max. resolution 1920 x 1080)	N/A	N/A	N/A
	Recommended Resolutions (Please use these recommended screen resolutions to avoid compatibility issues.)	720x480 720x576 800x600 1024x768 1280x720 1366x768 1920x1080	N/A	N/A	N/A
	Audio Output	HDMI Audio Output	N/A	N/A	Built-in Mono Speaker
RTC		Built-in	Built-in	Built-in	Built-in
Power	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	850mA@24VDC	850mA@24VDC	850mA@24VDC	1A@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
Specification	Enclosure	Plastic	Plastic	Plastic	Plastic
	Dimensions WxHxD	29.8 x 130 x 115 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
	Panel Cutout	N/A	192 x 138 mm	192 x 138 mm	250 x 192 mm
	Weight	Approx. 0.24 kg	Approx. 0.6 kg	Approx. 0.6 kg	Approx. 1 kg
	Mount	35 mm DIN rail mounting	Panel mount	Panel mount	Panel mount, VESA mount 75 x 75 mm
		Protection Structure	IP20	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel
Environment	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° ~ 55° C (32° ~ 131° F)	0° ~ 55° C (32° ~ 131° 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 EasyAccess 2.0 (Optional) CODESYS (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional) CODESYS (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional) CODESYS (Optional)	EasyBuilder Pro Built-in EasyAccess 2.0 CODESYS (Optional)

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

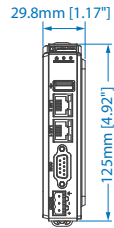
# Dimensions

cMT-FHDX-220

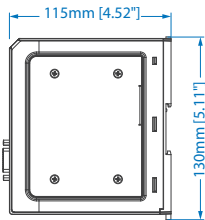
cMT3072X

cMT3072XH

cMT3092X



Front View



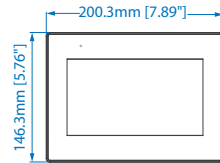
Side View



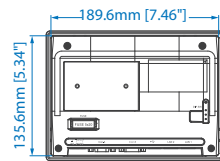
Top View



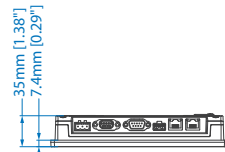
Bottom View



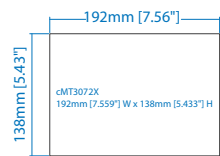
Front View



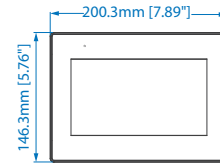
Rear View



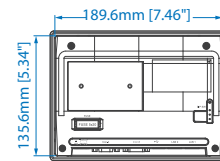
Bottom View



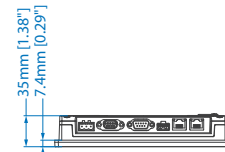
Cutout Dimensions



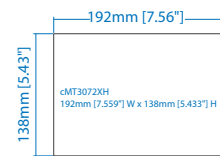
Front View



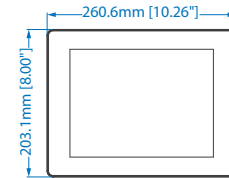
Rear View



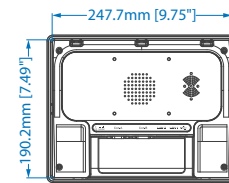
Bottom View



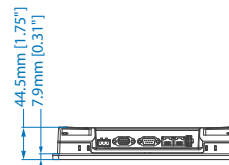
Cutout Dimensions



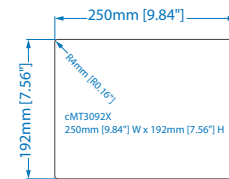
Front View



Rear View



Bottom View



Cutout Dimensions

# Advanced Model Specification



	Model	cMT3102X	cMT3152X	cMT3162X
Display	Display	10.1" TFT	15" IPS	15.6" IPS
	Resolution	1024 x 600	1024 x 768	1920 x 1080
	Brightness (cd/ m' )	350	400	300
	Contrast Ratio	500:1	1000: 1	800: 1
	Backlight Type	LED	LED	LED
	Backlight Life Time	>50,000 hrs.	>50,000 hrs.	>30,000 hrs.
	Colors	16.7M	16.2M	16.2M
	LCD Viewing Angle (T/B/L/R)	70/70/80/80	89/89/89/89	89/89/89/89
	Pixel Pitch (mm)	0.2175 (H) x 0.2088 (V)	0.297(H) x 0.297(V)	0.17925(H) x 0.17925(V)
	Touch Panel	Type	4-wire Resistive Type	Tempered Glass, Capacitive Type* Hardness Scale 7H
Accuracy		Active Area Length(X)±2%, Width(Y)±2%	N/A	N/A
Memory	Flash	4 GB	4 GB	4 GB
	RAM	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
I/O Port	SD Card Slot	N/A	SD/SDHC	N/A
	USB Host	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 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1
	WiFi	M02 WiFi Expansion Module (Optional)	N/A	N/A
	COM Port	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*
	RS-485 Dual Isolation	N/A	Yes	N/A
	CAN Bus	Yes	Yes	Yes
	Audio Output	N/A	Built-in Mono Speaker Audio Line Out - 3.5 mm jack x 1	Built-in Mono Speaker
	RTC		Built-in	Built-in
	Power	Input Power	24±20%VDC	24±20%VDC
Power Isolation		Built-in	Built-in	Built-in
Power Consumption		1A@24VDC	1.3A@24VDC	1.3A@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
	Enclosure	Plastic	Front bezel: Plastic, Rear Enclosure: Aluminum	Front bezel: Plastic, Rear Enclosure: Aluminum
	Dimensions WxHxD	271 x 213 x 38 mm	366 x 293 x 51.5 mm	400 x 263 x 27.6 mm
	Panel Cutout	260 x 202 mm	352 x 279 mm	384 x 247 mm
	Weight	Approx. 1.2 kg	Approx. 2.75 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
	Environment	Protection Structure	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)
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)
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)
Certificate	CE	CE marked	CE marked	CE marked
	UL		cULus Listed	cULus Listed
Software		EasyBuilder Pro EasyAccess 2.0 (Optional) CODESYS (Optional)	EasyBuilder Pro Built-in EasyAccess 2.0 CODESYS (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional) CODESYS (Optional)

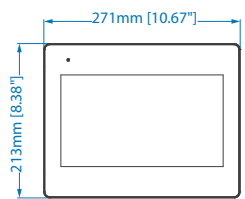
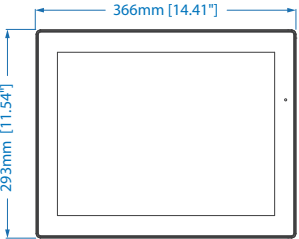
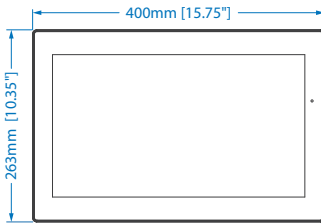
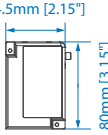
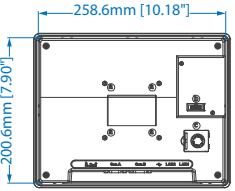
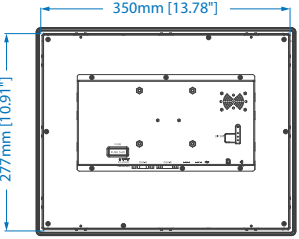
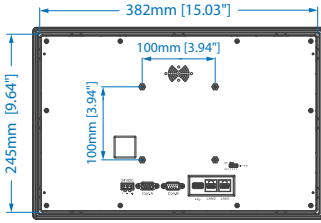
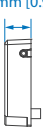
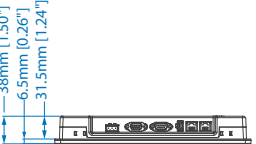
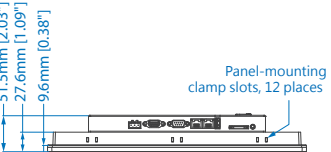
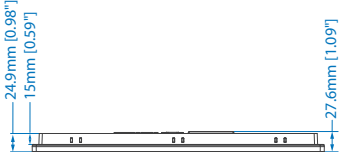
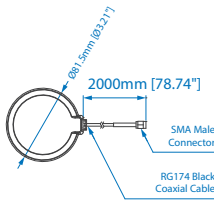
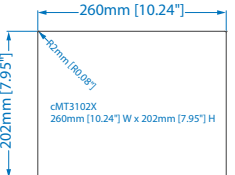
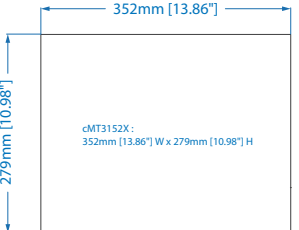
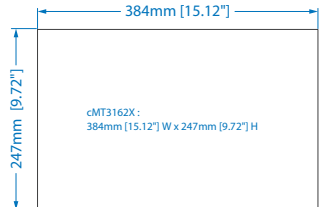
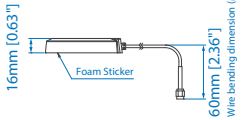
\*cMT3102X/ cMT3152X/ cMT3162X: Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.  
 \*cMT3152X/ cMT3162X: Supports multi-touch gestures.  
 \*cMT3162X: Supports vibrational feedback.

# Accessories



	Model	M02
Network	WiFi	IEEE 802.11b IEEE 802.11g IEEE 802.11n
I/O Port	SMA Female Connector	1
	Male Connector to HMI	1
Power	Input Power	5VDC
	Power Consumption	900mA@5VDC (powered by HMI)
	Voltage Resistance	500VAC (1min.)
	Isolation Resistance	Exceed 50MΩ @ 500VDC
Specification	Enclosure	Plastic
	Dimensions WxHxD	54.5 x 80 x 24.1 mm
	Weight	Approx. 80 g
	Mount	HMI connector + diagonal screw fastening
Environment	Protection Structure	M02: IP20 Compliant Antenna: IP66 Compliant
	Storage Temperature	-20° ~ 60° C (-4° ~ 140° F)
	Operating Temperature	0° ~ 50° C (32° ~ 122° F)
	Relative Humidity	10% ~ 90% (non-condensing)
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)
Certificate	CE	CE marked
Software		EasyBuilder Pro

# Dimensions

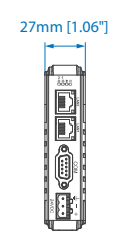
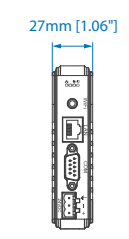
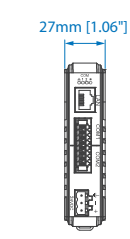
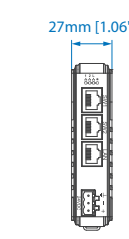
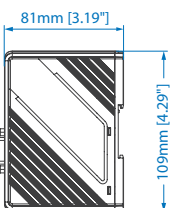
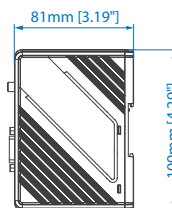
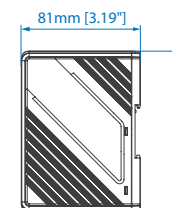
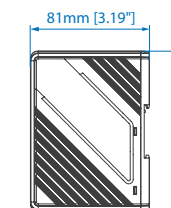

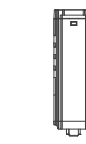


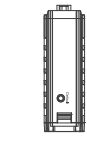



cMT3102X	cMT3152X	cMT3162X	M02
 <p>271mm [10.67"] 213mm [8.38"]</p> <p>Front View</p>	 <p>366mm [14.41"] 293mm [11.54"]</p> <p>Front View</p>	 <p>400mm [15.75"] 263mm [10.35"]</p> <p>Front View</p>	 <p>54.5mm [2.15"] 80mm [3.15"]</p> <p>Front View</p>
 <p>258.6mm [10.18"] 200.6mm [7.90"]</p> <p>Rear View</p>	 <p>350mm [13.78"] 277mm [10.91"]</p> <p>Rear View</p>	 <p>382mm [15.03"] 245mm [9.64"] 100mm [3.94"] 100mm [3.94"]</p> <p>Rear View</p>	 <p>24.1mm [0.95"]</p> <p>Side View</p>
 <p>38mm [1.50"] 6.5mm [0.26"] 31.5mm [1.24"]</p> <p>Bottom View</p>	 <p>51.5mm [2.03"] 27.6mm [1.09"] 9.6mm [0.38"]</p> <p>Panel-mounting clamp slots, 12 places</p> <p>Bottom View</p>	 <p>24.9mm [0.98"] 15mm [0.59"] 27.6mm [1.09"]</p> <p>Bottom View</p>	 <p>Ø81.5mm [Ø3.21"] 2000mm [78.74"] SMA Male Connector RG174 Black Coaxial Cable</p>
 <p>260mm [10.24"] 202mm [7.95"] 20mm (Radius) cMT3102X 260mm [10.24"] W x 202mm [7.95"] H</p> <p>Cutout Dimensions</p>	 <p>352mm [13.86"] 279mm [10.98"]</p> <p>cMT3152X: 352mm [13.86"] W x 279mm [10.98"] H</p> <p>Cutout Dimensions</p>	 <p>384mm [15.12"] 247mm [9.72"]</p> <p>cMT3162X: 384mm [15.12"] W x 247mm [9.72"] H</p> <p>Cutout Dimensions</p>	 <p>16mm [0.63"] Foam Sticker 60mm [2.36"] Wire bending dimension (Min.)</p> <p>Antenna</p>

# Specification



	Model	cMT-G01	cMT-G02	cMT-G03	cMT-G04
Memory	Flash	256 MB	256 MB	256 MB	256 MB
	RAM	256 MB	256 MB	256 MB	256 MB
Processor		32-bit RISC 600MHz	32-bit RISC 600MHz	32-bit RISC 528MHz	32-bit RISC 528MHz
I/O Port	Ethernet	LAN 1: 10/100/1000 Base-T x 1 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 SW1, SW2: 10/100 Base-T x 1 (2 port Ethernet switch)
	WiFi	N/A	IEEE 802.11 b/g/n 802.11b: max 15.88 dBm 802.11g: max 11.92 dBm 802.11n: max 11.28 dBm	N/A	N/A
	COM Port	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 2W, RS-485 2W/4W COM2: RS-232 2W, RS-485 2W/4W	N/A
RTC		Built-in	Built-in	Built-in	Built-in
Power	Input Power	24±20%VDC	10.5~28VDC	10.5~28VDC	10.5~28VDC
	Power Isolation	Built-in	Built-in	Built-in	Built-in
	Power Consumption	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.)
	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)
Specification	PCB Coating	Yes	Yes	Yes	Yes
	Enclosure	Plastic	Plastic	Plastic	Plastic
	Dimensions WxHxD	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. 0.14 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
Environment	Protection Structure	IP20	IP20	IP20	IP20
	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)
	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 EasyAccess 2.0 (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional)	EasyBuilder Pro EasyAccess 2.0 (Optional)

# Dimensions

cMT-G01	cMT-G02	cMT-G03	cMT-G04
 <p>27mm [1.06"]</p>	 <p>27mm [1.06"]</p>	 <p>27mm [1.06"]</p>	 <p>27mm [1.06"]</p>
Front View	Front View	Front View	Front View
 <p>81mm [3.19"] 109mm [4.29"]</p>	 <p>81mm [3.19"] 109mm [4.29"]</p>	 <p>81mm [3.19"] 109mm [4.29"]</p>	 <p>81mm [3.19"] 109mm [4.29"]</p>
Side View	Side View	Side View	Side View
			
Top View	Top View	Top View	Top View
			
Bottom View	Bottom View	Bottom View	Bottom View

# Specification



	Model	cMT-CTRL01	cMT-SVR-100	cMT-SVR-102	cMT-SVR-200	cMT-SVR-202	cMT-iM21
Display	Display	N/A	N/A	N/A	N/A	N/A	21.5" IPS
	Resolution	N/A	N/A	N/A	N/A	N/A	Full HD 1920 x 1080
	Brightness (cd/ m <sup>2</sup> )	N/A	N/A	N/A	N/A	N/A	250
	Contrast Ratio	N/A	N/A	N/A	N/A	N/A	1000: 1
	Backlight Type	N/A	N/A	N/A	N/A	N/A	LED
	Backlight Life Time	N/A	N/A	N/A	N/A	N/A	> 50,000 hrs.
	Colors	N/A	N/A	N/A	N/A	N/A	16.7M
	LCD Viewing Angle (T/B/L/R)	N/A	N/A	N/A	N/A	N/A	89/89/89/89
	Pixel Pitch (mm)	N/A	N/A	N/A	N/A	N/A	0.2479 (H) x 0.2479 (V)
Touch Panel	Type	N/A	N/A	N/A	N/A	N/A	Tempered Glass, Capacitive Type ( Supports 2-Finger Gestures )Hardness Scale 6H
Memory	Flash	4 GB	256 MB	256 MB	256 MB	256 MB	N/A
	RAM	512 MB	256 MB	256 MB	256 MB	256 MB	N/A
	Data, Memory, Code	3 MB	N/A	N/A	N/A	N/A	N/A
	Retain area	16 KB (every minute) (Kept after reboots)	N/A	N/A	N/A	N/A	N/A
	Persistent area	16 KB (every minute) (Kept after downloads)	N/A	N/A	N/A	N/A	N/A
	File system	8MB	N/A	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 600MHz	32-bit RISC 600MHz	N/A
I/O Port	SD Card Slot	SD/SDHC	SD/SDHC	SD/SDHC	SD/SDHC	SD/SDHC	N/A
	USB Host	N/A	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
	USB Client	N/A	N/A	N/A	N/A	N/A	USB 2.0 x 1 (Micro USB)
	Ethernet	Ethernet 1: 10/100/1000 Base-T x 1 Ethernet 2: 10/100 Base-T x 1	10/100/1000 Base-T x 2	10/100/1000 Base-T x 2	10/100/1000 Base-T x 1	10/100/1000 Base-T x 1	N/A
	WiFi	N/A	N/A	N/A	IEEE 802.11 b/g/n 802.11b: max 18.01 dBm 802.11g: max 11.02 dBm 802.11n: max 12.20 dBm	IEEE 802.11 b/g/n 802.11b: max 18.01 dBm 802.11g: max 11.02 dBm 802.11n: max 12.20 dBm	N/A
	COM Port	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	N/A
	Local bus	iBus	N/A	N/A	N/A	N/A	N/A
HDMI	N/A	N/A	N/A	N/A	N/A	Yes ( Video Input )	
CODESYS	Protocol	Modbus TCP/IP Master, EtherCAT Master	N/A	N/A	N/A	N/A	N/A
RTC		Built-in	Built-in	Built-in	Built-in	Built-in	N/A
Power	Input Power	24±20%VDC	24±20%VDC	24±20%VDC	10.5~28VDC	10.5~28VDC	24±20%VDC
	Power Isolation	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
	Power Dissipation	Nominal 310mA@24VDC	N/A	N/A	N/A	N/A	N/A
	Current for Internal Bus	Max 2A@5VDC	N/A	N/A	N/A	N/A	N/A
	Current Consumption	550mA@5VDC	N/A	N/A	N/A	N/A	N/A
	Power Consumption	Nominal 310mA@24VDC	230mA@24VDC	230mA@24VDC	1000mA@12VDC ; 450mA@24VDC	1000mA@12VDC ; 450mA@24VDC	1.56A@24VDC
	Voltage Resistance	500VAC (1 min.)	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	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)	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	Yes	Yes	Yes
	Enclosure	Plastic	Plastic	Plastic	Plastic	Plastic	Aluminum
	Dimensions WxHxD	50 x 109 x 81 mm	27 x 130 x 115 mm	27 x 130 x 115 mm	27 x 130 x 115 mm	27 x 130 x 115 mm	546 x 354 x 56.2 mm
	Panel Cutout	N/A	N/A	N/A	N/A	N/A	532 x 340 mm
	Weight	Approx. 0.24 kg	Approx. 0.18 kg	Approx. 0.18 kg	Approx. 0.18 kg	Approx. 0.18 kg	Approx. 4.9 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	Panel mount, VESA mount 100 x 100 mm
Environment	Protection Structure	IP20	IP20	IP20	IP20	IP20	NEMA4 / IP65 Compliant Front Panel*
	Storage Temperature	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 60° C (-4° ~ 140° F)
	Operating Temperature	-10° ~ 50° C (14° ~ 122° F)	-20° ~ 55° C (-4° ~ 131° F)	-20° ~ 55° C (-4° ~ 131° F)	-10° ~ 55° C (14° ~ 131° F)	-10° ~ 55° C (14° ~ 131° 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)	10% ~ 90% (non-condensing)
Certificate	CE	CE marked	CE marked	CE marked	CE marked	CE marked	CE marked
	UL	cULus Listed	cULus Listed	cULus Listed	cULus Listed	cULus Listed	cULus Listed
Software		EasyBuilder Pro EasyAccess 2.0 (Optional) Built-in CODESYS	EasyBuilder Pro EasyAccess 2.0 (Optional)	EasyBuilder Pro Built-in EasyAccess 2.0	EasyBuilder Pro EasyAccess 2.0 (Optional)	EasyBuilder Pro Built-in EasyAccess 2.0	N/A

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

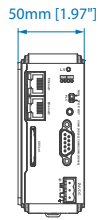
# Dimensions

cMT-CTRL01

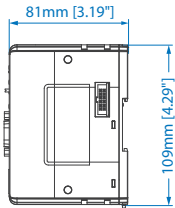
cMT-SVR100 / cMT-SVR102

cMT-SVR-200 / cMT-SVR-202

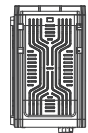
cMT-IM21



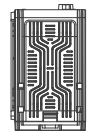
Front View



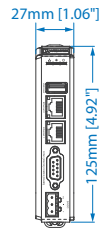
Side View



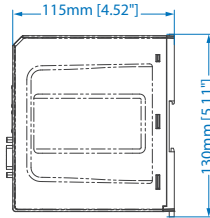
Top View



Bottom View



Front View



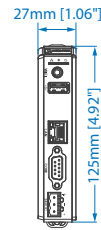
Side View



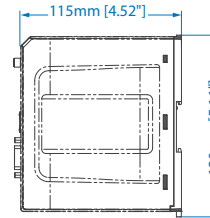
Top View



Bottom View



Front View



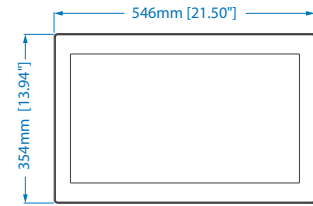
Side View



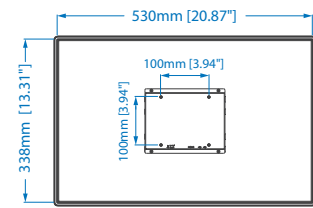
Top View



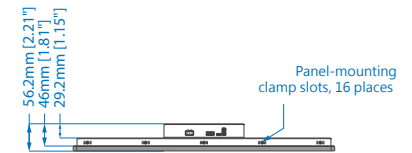
Bottom View



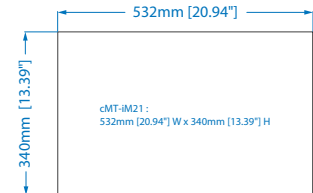
Front View



Rear View



Bottom View



Cutout Dimensions



# Specification



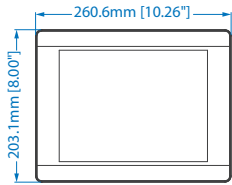
	Model	cMT-iV6	cMT-iPC10	cMT-iPC15
Display	Display	9.7" TFT	9.7" TFT	15" IPS
	Resolution	1024 x 768	1024 x 768	1024 x 768
	Brightness (cd/ m' )	350	350	400
	Contrast Ratio	500: 1	500: 1	1000: 1
	Backlight Type	LED	LED	LED
	Backlight Life Time	> 30,000 hrs.	> 30,000 hrs.	> 50,000 hrs.
	Colors	262K	262K	16.2M
	LCD Viewing Angle (T/B/L/R)	60/70/70/70	60/70/70/70	89/89/89/89
	Pixel Pitch (mm)	0.192 (H) x 0.192 (V)	0.129 (H) x 0.129 (V)	0.297(H) x 0.297(V)
Touch Panel	Type	4-wire Resistive Type	4-wire Resistive Type	4-wire Resistive Type
	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%
Memory	Flash	4 GB	64 GB (SSD)	64 GB (SSD)
	RAM	1 GB	4 GB	4 GB
Processor		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 Audio Line Out - 3.5 mm jack x 1	Built-in Mono Speaker 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 (EasyLauncher + cMT Viewer)	*Windows® 7 / Windows® 8.1 / Windows® 10 IoT Enterprise (EasyLauncher + cMT Viewer)

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

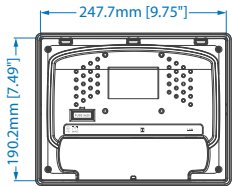
\*Intel Atom is a trademark of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

# Dimensions

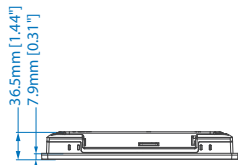
cMT-iV6



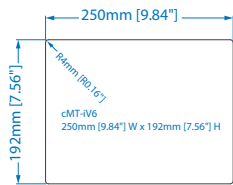
Front View



Rear View

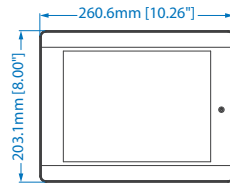


Bottom View

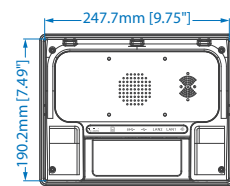


Cutout Dimensions

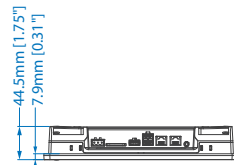
cMT-iPC10



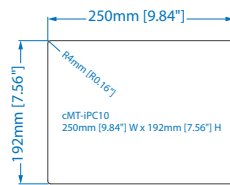
Front View



Rear View

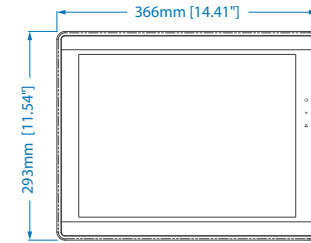


Bottom View

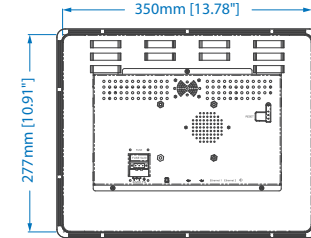


Cutout Dimensions

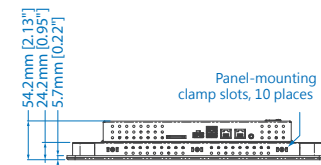
cMT-iPC15



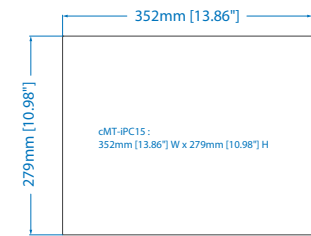
Front View



Rear View



Bottom View



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
Specification	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
	Mount	35mm DIN rail mounting	35mm DIN rail mounting	35mm DIN rail mounting
Environment	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)
Certification	EMC Immunity	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	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	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
	UL	cULus Listed	cULus Listed	cULus Listed

## Digital Input/Output Specifications



Model		iR-DI16-K	iR-DM16-P	iR-DM16-N	iR-DQ16-P	iR-DQ16-N	iR-DQ08-R	
<b>Input Logic</b>		Sink or Source	Sink or Source	Sink or Source	N/A	N/A	N/A	
<b>Number of Inputs</b>		16	8	8	0	0	0	
<b>Output Logic</b>		N/A	Source	Sink	Source	Sink	Relay	
<b>Number of Outputs</b>		0	8	8	16	16	8	
<b>Current Consumption</b>		83mA@5VDC	130mA@5VDC	130mA@5VDC	196mA@5VDC	205mA@5VDC	220mA@5VDC	
<b>HIGH Level Input Voltage</b>		15~28VDC	15~28VDC	15~28VDC	N/A	N/A	N/A	
<b>LOW Level Input Voltage</b>		0~5 VDC	0~5 VDC	0~5 VDC	N/A	N/A	N/A	
<b>Output Voltage</b>		N/A	11~28VDC	11~28VDC	11~28VDC	11~28VDC	250VAC/ 30VDC	
<b>Output Current</b>		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)	
<b>Isolation</b>		Input: Optical Isolation Output: N/A	Input: Optical Isolation Output: Optical Isolation	Input: Optical Isolation Output: Optical Isolation	Input: N/A Output: Optical Isolation	Input: N/A Output: Optical Isolation	Input: N/A Output: Electromagnetic Isolation	
<b>Specification</b>	Enclosure	Plastic						
	Dimensions WxHxD	27 x 109 x 81 mm						
	Weight	Approx. 0.12 kg						
	Mount	35mm DIN rail mounting						Approx. 0.13 kg
<b>Environment</b>	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)						
<b>Connection</b>	Cross-section	AWG 28-16						AWG 24-16
<b>Certification</b>	EMC Immunity	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						
	UL	cULus Listed						

## Analog Input/Output Specifications



Model		iR-AI04-VI	iR-AM06-VI	iR-AQ04-VI
<b>Number of Analog Inputs</b>		4 (±10V/ ±20mA)	4 (±10V/ ±20mA)	0
<b>Number of Analog outputs</b>		0	2 (±10V/ ±20mA)	4 (±10V/ ±20mA)
<b>Current Consumption</b>		70mA@5VDC	70mA@5VDC	65mA@5VDC
<b>Analog Power Supply</b>		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%)
<b>Specification</b>	PCB Coating	Yes		
	Enclosure	Plastic		
	Dimensions WxHxD	27 x 109 x 81 mm		
	Weight	Approx. 0.12 kg		
	Mount	35mm DIN rail mounting		
<b>Environment</b>	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)		
<b>Connection</b>	Cross-section	AWG 28-16		
<b>Certification</b>	EMC Immunity	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		
	UL	cULus Listed		



## Temperature Specifications

Model		iR-AI04-TR
Number of Input Channels		4 (RTD/Thermocouple)
Current Consumption		65mA@5VDC
Analog Power Supply Specification		24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)
	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 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		Digital input/ output	Differential input/ output
Number of Inputs		Sink Input	Differential Input
Output Logic		4	3 (A/B/Z phase )
Number of Outputs		Source Output	Differential Output
HIGH Level Input Voltage		4	2(A/B phase )
LOW Level Input Voltage		15~28 VDC	-
Input current		0~5 VDC	-
Input Impedance		24 VDC, 5 mA	Meets the Requirements of ANSI Standards TIA/EIA-485-A
Indicators		3 KΩ	-
Output Voltage		Red LED Input State	
Output Current		24VDC	Meets the Requirements of ANSI Standards TIA/EIA-485-A
Maximum input frequency		50 mA	
Maximum Output frequency		200KHz	2MHz
Number of Axis Specification		40KHz	2MHz
	PCB Coating	1- Axis	
	Enclosure	Yes	
	Dimensions WxHxD	Plastic	
	Weight	27 x 109 x 81 mm	
	Mount	Approx. 0.12 kg	
Environment	Protection Structure	35mm DIN rail mounting	
	Storage Temperature	IP20	
	Operating Temperature	-20° ~ 70° C (-4° ~ 158° F)	
	Relative Humidity	0° ~ 55° C (32° ~ 131° F)	
Connection	Cross-section	10% ~ 90% (non-condensing)	
Certification	EMC Immunity	AWG 28-16	
	UL	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	
		cULus Listed	

# Quick Feature Comparison

Standard Model    Advanced Model    Other Model

	cMT2078X	cMT2108X	cMT2158X	cMT3161X	cMT3072X cMT3072XH	cMT3092X	cMT3102X	cMT3152X	cMT3162X	cMT-FHDX-220	Gateway cMT-G01 / cMT-G02 cMT-G03 / cMT-G04	cMT-CTRL01	cMT-SVR-100 cMT-SVR-200
Audio Output			●	●		●		●	●	via HDMI			
WiFi							Optional (M02 Module)					cMT-G02	cMT-SVR-200
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 File Browser 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	Optional		●	
EasyAccess 2.0	Optional	Optional	Optional	Optional	Optional	Built-in License	Optional	Built-in License	Optional	Optional	Optional	Optional	cMT-SVR-100 cMT-SVR-200 Optional  cMT-SVR-102 cMT-SVR-202 Built-in License

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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.

The company's missions are to provide its customers with quality products and superior service as well as to share the fruits of its good teamwork with all of its employees, by which we are able to achieve the goals of establishing a reputation as a leading brand in the industry and ensuring sustainability of the operation and development of enterprise.

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