cMT3218XP-CODESYS | High-Performance HMI Series



21.5” Touchscreen HMI with IIoT Features

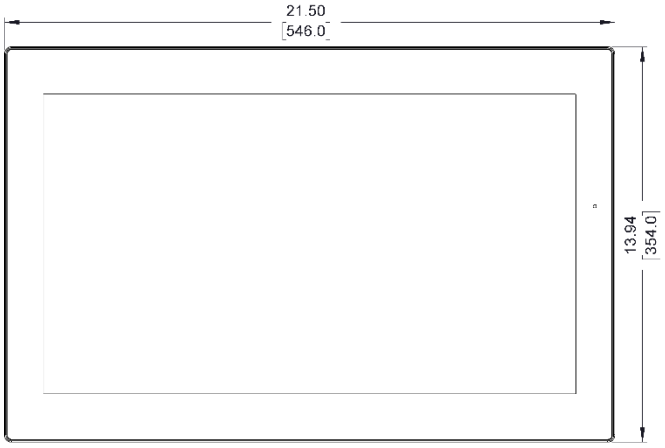
- Quad Core processor allows for the HMI project and PLC project to run on its own processor
- High Speed Display Update
- Built-in Edge Gateway Function
- PLC logic programmed with CODESYS
- SQL Database, Database Server, OPC-UA Server

MQTT SQL OPC UA EasyAccess2.0 Modbus Sparkplug™ VNC cMT Viewer amazon web services Azure CODESYS

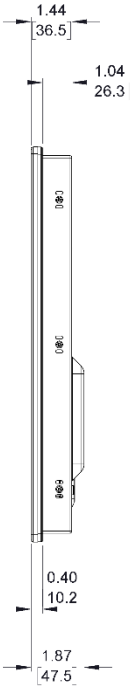
System	**CPU**	Quad-Core RISC
	Memory (RAM)	2 GB
	Memory (Flash)	4 GB
	RTC	Built-in
I/O Ports	**Serial**	1 x DE9S COM2: RS-485 2 or 4 wire, COM3: RS-485 2 wire, CAN bus
		1 x DE9P COM1: RS-232 4 wire, COM3: RS-232 2 wire*
	LAN	LAN 1: 10/100/1000 Base-T RJ-45 LAN 2: 10/100 Base T RJ-45
	CAN bus	Yes
	USB Host	2 x USB 2.0
	USB Client	N/A
	Audio	Built-in Mono Speaker
	Video	N/A
	Wi-Fi	N/A
	HDMI®	N/A
	SD Card Slot	N/A
Display	**Display Type**	21.5” TFT LCD
	Size (W x H)	18.75 x 10.56 inches [476 x 268.2 mm]
	Max. Resolution	1920 x 1080
	Max. Color	16.7 M
	Luminance (cd/m²)	500
	View Angle (H°/V°)	178/178
	Contrast Ratio	1000:1
	Backlight Lifetime (Hours)	30,000+
Touch Screen	**Type**	Tempered Glass, Capacitive
	Hardness Scale	≥ 6H
Electrical	**Input Voltage**	24 ±20% VDC
	Input Current	1.8A @ 24 VDC
	Input Power	43.2 W
	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩ at 500 VDC
Mechanical	**Enclosure**	Aluminum, Charcoal Grey
	PCB Coating	Yes
	Dimensions (W x H x D)	21.5 x 13.94 x 1.87 inches [546 x 354 x 47.5 mm]
	Net Weight	Approx. 12.13 lbs. [5.5 kg]
	Mounting	Panel mounting, VESA mount 100 x 100 mm
Environmental	**Operating Temperature**	32° ~ 122°F [0° ~ 50°C]
	Storage Temperature	-4° ~ 140°F [-20° ~ 60°C]
	Relative Humidity	10% ~ 90% (non-condensing)
	Altitude (Air Pressure)	Below 3,000 meters (70.1 kPa)
	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Product Carbon Footprint (kg CO_2)	Manufacturing Stage (A1-A3): 139
	Rating	UL Type 4X (indoor use only) NEMA 4, IP66 compliant front panel
	Certifications	cULus, CE, RoHS
Software	EBPro (v6.10.01 or later), EasyAccess 2.0 (Optional), CODESYS® (Optional), SQL, MQTT, OPCUA Client, OPCUA Server VNC, cMT Viewer, EasyWeb 2.0, WebView	
Notes	*Only Tx and Rx may be used for COM1 RS-232 while COM3 RS-232 is in use. ***Activation of CODESYS will monopolize LAN 1 port for exclusive CODESYS use. This action is irreversible. CODESYS® is a trademark of CODESYS GmbH. Specifications subject to change without notice	



TOP VIEW

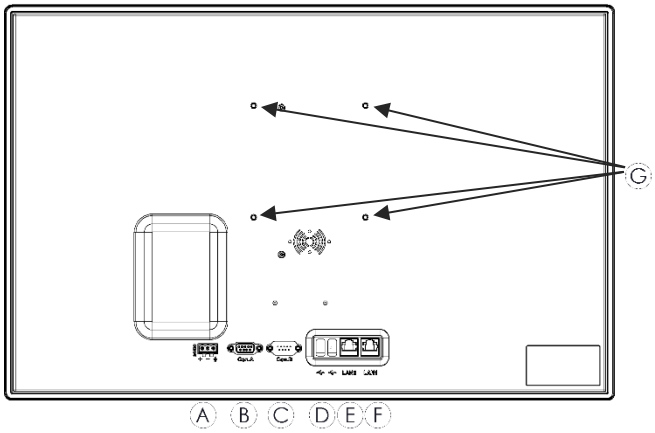


FRONT VIEW



SIDE VIEW





REAR VIEW



BOTTOM VIEW

A	Power Connector
B	COM Port DE9S
C	COM Port DE9P
D	2x USB 2.0 Host Port
E	RJ45 LAN 2
F	RJ45 LAN 1
G	VESA mount 100 x 100 mm

Engineers and Integrators Trust Maple Systems

Control your factory, monitor your data, and connect your world with Maple Systems HMI/cMTs! Our intuitive touchscreen panels, free software, and dedicated support make industrial automation simple and powerful. Wide selection, fast delivery, strong warranty—we're your complete HMI partner.

Free Configuration Software

No license or key needed

Our HMI/cMTs give you the flexibility to create and deploy custom control applications suited to your unique industrial process. Pick and place objects, pictures, and shapes; create trend displays, graphs, XY plots, and pie charts; add passwords and security levels; assign communication (PLC) drivers easily; and more. Our Support Center and Integration sections will walk you through creating your project in minutes instead of days.



Allen-Bradley ABB babcock
BALDOR Danfoss SIEMENS
MITSUBISHI Parker
TOSHIBA YASKAWA Koyo
Matsushita

Connect to over 400 PLCs and Controllers

Maximize efficiency

With over +400 PLC & Controller communication protocols, our HMI/cMTs easily integrate with your preferred PLC brand including Allen-Bradley, Siemens, Omron, Emerson, GE, Maple Systems, Panasonic, Mitsubishi, and all the other major brands. With just a few clicks, creating a powerful edge gateway at a great price has never been easier. See the full list of supported controller manufacturers.

Build Your Control Panel

Maximize efficiency

Let Maple Systems serve as your main provider for optimizing control cabinets, offering industrial-grade hardware designed to maximize space and reduce heat. When building or upgrading an electrical enclosure, selecting components that communicate seamlessly is critical to avoiding component clutter and high integration costs. Maple Systems addresses these cabinet-level challenges directly through compact form factors, DIN-rail mountable solutions, and extensive protocol conversion capabilities

Improve Operational Efficiency

Streamlines local or remote data flow

With the ability to connect to many devices such as PLCs and other network devices, our HMIs provide a visual interface that allows control over small to medium systems. Additionally, our high-performance HMIs include advanced features such as IIoT functionality (MQTT, SQL Databases, OPC UA, etc.), multi-tasking ability, capability to remote access the unit with a Virtual Network Computing (VNC) program, and more.

Maple Systems

HMI/cMT Feature Overview

With few exceptions, our Standard HMI/cMTs support (the HMI series and select headless cMT models):	With few exceptions, our Advanced HMI/cMTs support (the cMT2xxx series and select headless cMT models):	With few exceptions, our High-Performance HMI/cMTs support (the cMT3xxx series HMIs and select cMT models):
Alarm & Event Messages	Alarm & Event Messages	Alarm & Event Messages
Animation - Flow Block	Animation - Flow Block	Animation - Flow Block
ASCII Characters	ASCII Characters	ASCII Characters
Bar Graphs	Bar Graphs	Bar Graphs
Combo Button	Combo Button	Combo Button
Data Logging and Sampling	Data Logging and Sampling	Data Logging and Sampling
Date / Time	Date / Time	Date / Time
Dynamic Drawing	Dynamic Drawing	Dynamic Drawing
Dynamic Scale	Dynamic Scale	Dynamic Scale
EasyAccess 2.0	EasyAccess 2.0	EasyAccess 2.0
EasyWatch	EasyWatch	EasyWatch
Enhanced Security Mode	Enhanced Security Mode	Enhanced Security Mode
Event Alarm Log	Event Alarm Log	Event Alarm Log
File Browser	File Browser	File Browser
Grid Display	Grid Display	Grid Display
Languages (Up to 24 Languages Supported)	Languages (Up to 24)	Languages (Up to 24)
Libraries	Libraries	Libraries
Macros	Macros	Macros
Meters & Gauges	Meters & Gauges	Meters & Gauges
Modbus	Modbus	Modbus
Objects (Grouping, Layering, Aligning, Flip)	Objects (Grouping, Layering, Aligning, Flip)	Objects (Grouping, Layering, Aligning, Flip)
Off-line / On-line Simulation	Off-line / On-line Simulation	Off-line / On-line Simulation
OPC UA Client	OPC UA Client	OPC UA Client
Operation Log	Operation Log	Operation Log
Pass-Through Mode	Pass-Through Mode	Pass-Through Mode
Picture Object	Picture Object	Picture Object
Picture Viewer	Picture Viewer	Picture Viewer
Pie Chart	Pie Chart	Pie Chart
PLC Tag Embedded in Project	PLC Tag Embedded in Project	PLC Tag Embedded in Project
Project Password	Project Password	Project Password
Recipes	Recipes	Recipes
Remote Access	Remote Access	Remote Access
Scheduler	Scheduler	Scheduler
Security Levels (Enhanced)	Security Levels (Enhanced)	Security Levels (Enhanced)
System Setting Editor	System Setting Editor	System Setting Editor
Table	Table	Table
Text Object	Text Object	Text Object
Timer Object	Timer Object	Timer Object
Trend Display (Graphs)	Trend Display (Graphs)	Trend Display (Graphs)
User-Defined Start-Up Screen	User-Defined Start-Up Screen	User-Defined Start-Up Screen
Utility Manager	Utility Manager	Utility Manager
VNC Server	VNC Server	VNC Server
XY Plot	XY Plot	XY Plot
	Animation (Objects, Word Lamp, GIFs, Moving Shape)	Animation (Objects, Word Lamp, GIFs, Moving Shape)
	BACnet	BACnet
	cMT Diagnoser	cMT Diagnoser
	cMT Viewer Support	cMT Viewer Support
	CODESYS Support (1)	CODESYS Support
	Email	Email
	File Transfer Protocol (FTP) Server	File Transfer Protocol (FTP) Server
	IP Camera	IP Camera
	Media Player	Media Player
	MQTT	MQTT
	MQTT - Advanced JSON	MQTT - Advanced JSON
	MQTT - AWS IoT, Sparkplig B, Azure IoT Hub	MQTT - AWS IoT, Sparkplig B, Azure IoT Hub
	PDF Reader	PDF Reader
	String Table	String Table
	Time Synchronization	Time Synchronization
	USB Camera	USB Camera
	VNC Viewer	VNC Viewer
	Web Streaming	Web Streaming
	WebView	WebView
		Barcode Scanner (Android Camera)
		CANbus
		Database Server
		OPC UA Server
		PLC Web Browser
		SQL Database Server Integration

This table is for illustration only and subject to change. Always check the software to see if a feature is supported in your specific hardware.

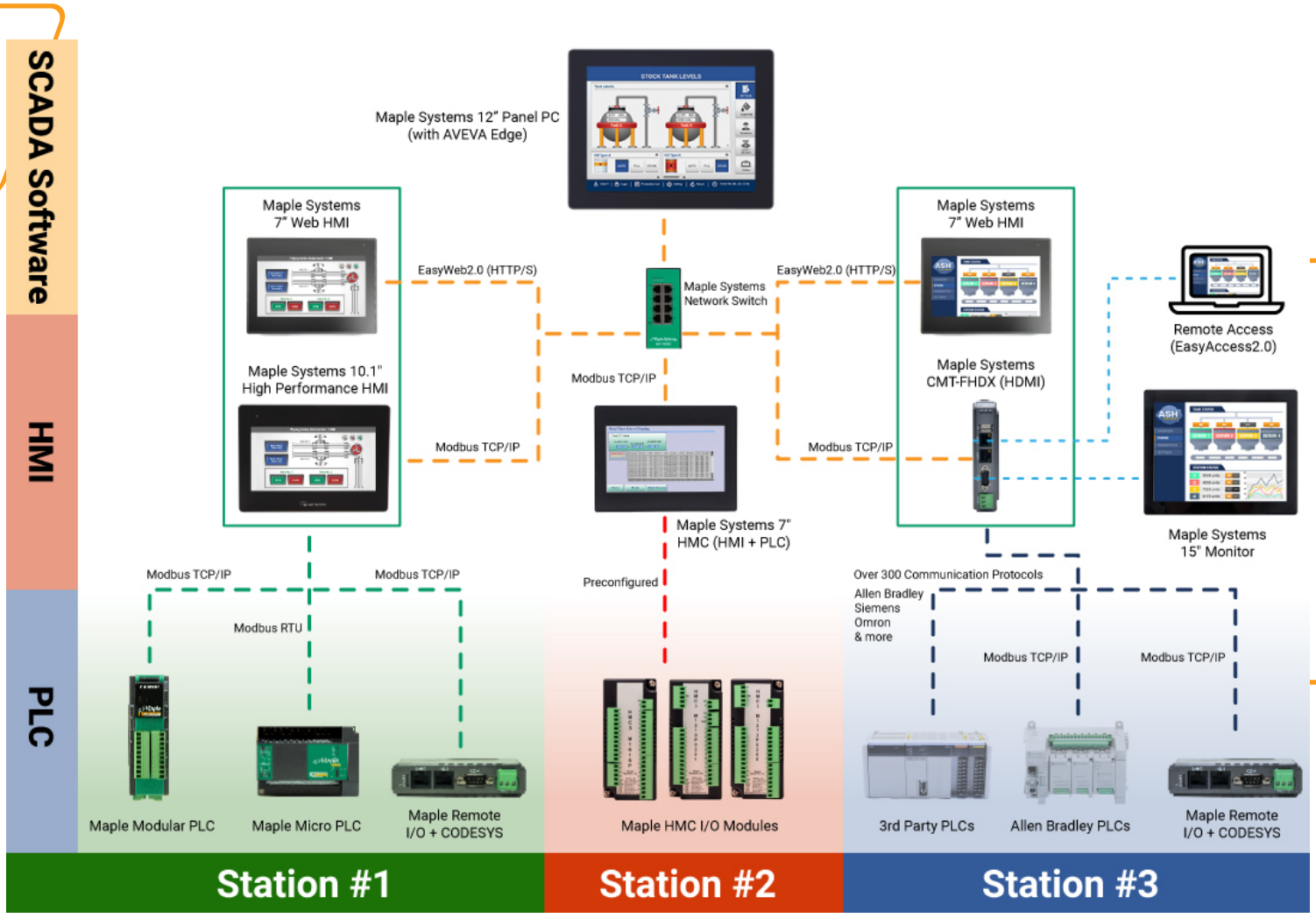
(1) Not supported on the cMT2166X

Standardizing SCADA Communications with Maple Systems Components

From simple stand-alone machines to sophisticated multi-device networked production lines, Maple Systems solutions empower your facility with enterprise-level operations and IIoT functionalities. Leveraging advanced cloud connectivity, Maple Systems hardware and software assist with:

- Logging data from your devices using Maple Systems, smart HMIs and gateways to aid in reporting, improve efficiency, and reduce downtime.
- Planning routine maintenance with ease by tracking system health metrics directly on Maple Systems HMIs and rugged Tablets.
- Adding advanced IIoT functionality via built-in support for MQTT, OPC UA, native Ignition server integration, and secure SQL databases like MySQL or Microsoft SQL Server.

The right Maple Systems products can help you standardize communications between legacy and modern devices, gluing disparate systems together to create a single, unified source for your SCADA ecosystem. There is no need to completely redesign your entire application. Keep the components that are already working for you, and simply add Maple Systems components to grow your abilities to supervise, control, and acquire data.



Industrial HMI / cMTs

Industrial Automation and Control Solutions

Imagine a system that seamlessly integrates real-time monitoring, intelligent control, and invaluable data analytics that can boost productivity, efficiency, and overall performance. That's the transformative capabilities of Maple Systems products and US-based technical sales and support.



HMIs

IIoT Control for Smart Factories

Our HMIs have enhanced software features such as remote access, data handling, security, recipes, email, and more. IIoT support for MQTT, Sparkplug B, Ignition SQL, and OPC UA. Class 1, Div 2 options available.



PLCs

Modular and Micro Series

Our PLCs provide an affordable combination of function and control in a cost-effective package. Programmed with our FREE control software, MapleLogic, that features high-speed counters, positioning control, input module filtering, PID control, and more, depending on the model.



Industrial PCs

Panel or Box PCs

Our Industrial PCs are full-strength, fan-less industrial computers with the power to support your SCADA software. Customize to meet your requirements: CPU, storage, memory, OS, and wifi upgrades available.



HMI + PLCs

Combining HMI and PLC functionality

These HMCs are powerful HMIs with I/O and supports high-speed counters and timers, provides serial, Ethernet communications, and support IEC programming. Class I, Division 2. Remote access options available.



Industrial Monitors

High Brightness, Wide Temp Options

Pair a Capacitive Touchscreen Monitor with one of our Industrial Box PCs or HDMI-enabled HMI to expand your project's capabilities. High brightness (1000nit), Wide-Temp, and Class I Division 2 options available.



Rugged Tablets

Durability, Performance, and Mobility

Built for industrial environments and certified to MIL-STD-810H military standards, these tablets feature waterproof enclosures with Gorilla Glass displays that protect against dust, water, and extreme temperatures.



Network Switches

Industrial Grade Components

Our network switches provide a high level of immunity against EMI and EMS found in industrial environments; and include features such as ESD Protection, Surge Protection, and Short Circuit Protection to ensure continuous operation in unstable power conditions. Unmanaged and managed switches available.



HTML5 Web HMI

Versatile and secure access to any web page

Web HMIs come standard with a built-in Chromium Browser, HTML5 Powered, IP66, Class I, Div 2 rating, ensuring intuitive interaction that enables users to access the same web content across many platforms.



Tower Stack Lights

Flash patterns and buzzer functions

Tower stack lights / Signal Towers provide high-visibility visual and audible signaling for clear machine status indication, safety alerts, and efficient industrial communication.



Pushbuttons

Dependable control for electrical and automation systems

Choose momentary or maintained action with options for illuminated, selector, emergency stop, and toggle designs.

Knowledge Base

Guides, tutorials, and documentation

Technical guides and how-to articles for Maple Systems products. Resources and configuration guides including programming basics, setup, communication protocols, software deployment, networking, and so much more!

Schedule a call with one of our product specialists today

Maple Systems, Inc. | 808 134th St SW, suite 120, Everett, WA 98204 | 425.745.3229 | maplesystems.com