

cMT3218XP | High-Performance HMI Series

21.5" Touchscreen HMI with IIoT Features





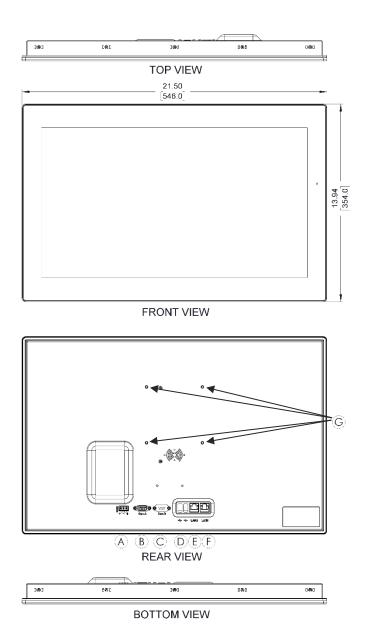


- Quad Core processor allows for the HMI project and PLC project to run on its own processor
 - High Speed Display Update
 - Built-in Edge Gateway Function
 - Full HD Display, Portrait or Landscape
 - SQL Database, Database Server, OPC-UA Server

		Sparkplug [™] V2	
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	
	CANbus	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 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	
Display	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	
	Input Voltage	24 ±20% VDC	
	Input Current	1.8A @ 24 VDC	
Electrical	Input Power	43.2 W	
	Power Isolation	Built-in	
	Isolation Resistance	Exceed 50 MΩ at 500 VDC	
	Enclosure	Aluminum, Charcoal Grey	
Mechanical	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		
	Mounting	Approx. 12.13 lbs. [5.5 kg] Panel mounting, VESA mount 100 x 100 mm	
Environmental	Operating Temperature Storage Temperature	32° ~ 122°F [0° ~ 50°C] -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)	
	Rating	NEMA 4, IP66 compliant front panel	
	Certifications	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. CODESYS® is a trademark of CODESYS GmbH.		
	Specifications subject to change without notice		



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- 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



Why Buy A Maple HMI

In addition to our powerful and affordable hardware, we'll also continue to support your company long after a sale. Wide product selection, large in-stock inventory, outstanding product warranty, free technical support and software, and in-house repairs with quick turnaround times, Maple Systems has your business covered.



Add Remote IO for PLC Functionality

Select Maple Advanced and High-Performance HMIs have a sleek hardware platform that runs both an HMI application created with our free HMI software and PLC logic programmed with CODESYS; each on its own dedicated processor. Unlike the typical multicore set up, where the operating system scheduler is responsible for allocating tasks to each processor, these HMIs have a hard separation between cores. One core is dedicated to the HMI application, the other to executing PLC logic of the CODESYS project. This ensures taxing graphics processing operations will not interfere with deterministic real time control tasks executing on the other processor.

After selecting your HMI, choose from a suite of easy to use powerful I/O modules to connect to your field equipment. We offer a complete set of I/O modules which can be combined with one of our communication couplers to create a remote I/O block.

Remote Access and the IIoT

Remote access is the ability to access an HMI or connected device, from another device, at any time, and from anywhere. With our free HMI software and supported hardware solutions, you have the freedom to access the HMI, and all its data and applications, from another device and control it as if you were standing in front of it. The enhanced features in our High-Performance HMIs support SQL Database Servers, Web Browser, OPC UA Server, and FTP, in addition to cMT Viewer, WebView, Web Streaming, and EasyAccess 2.0 and are designed to make accessing your HMI and data fast and streamlined.

Our High-Performance HMIs can act as an access point enabling operating equipment on the plant floor to connect to information technologies of the Industrial Internet of Things (IIoT). With our IIoT solutions, that are already included in the EBPro software, we can help you achieve better access to invaluable data and open a world of possibilities for your business. Read more about our <u>IIoT solutions</u>.

Build your SCADA

We offer all the components you need to create your own unique level of supervisory data acquisition and control, from the simplest stand-alone machine to sophisticated multi-device networked production line(s), all the way to enterprise-level operations and IIoT functionalities leveraging cloud connectivity.

Our products can help you standardize communications between devices, gluing different systems together for one source to your SCADA. No need to redesign your entire application. Keep the components that are already working for you, just add Maple Systems components to grow your abilities to supervise, control, and acquire data.

Incredible Functionality Out of the Box

- Easily and quickly create the project with functional objects including numeric object, lamp object, combobutton, alarms, and recipes
- Pick and place objects, pictures, and shapes
- Import/export recipes
- · Create trend display, graphs, XY plots, and pie charts
- Add passwords and security levels
- Assign communication (PLC) drivers easily and more with our Free HMI software

Additionally our HMIs support remote access solutions with VNC, MQTT, and OPC UA. For additional features see our High-Performance HMI series.



User Friendly HMI Configuration Software

Because designing the layout of screens and user-interface (UI) of the HMI is typically where most of the development time is spent, we've made our Free HMI configuration software easy to use.

- Import tags feature
- Tools to diagnose and monitor PLC to HMI connection
- Debugging tools
- Pre-built libraries
- Off-line and on-line simulation

These are just a few of the ways our software makes creating your project easier. We also have controller information sheets, cable drawings, sample projects, Getting Started Guides, and videos/tutorials available in our support center 24/7.





Programmable Logic Controller (PLC) Connectivity

With over 300 PLC & Controller communication protocols, these HMIs will easily integrate with your preferred PLC brands, including:

Allen-Bradley
Siemens
Omron
Emerson
GE
Panasonic
Mitsubishi
...and many more

Panel Mount HMI Feature Overview				
With few exceptions, all our Standard HMIs support (this covers all the HMI prefix models, ex: HMI5043L/LB, HMI5070L/LB):	With few exceptions, all our Advanced HMIs support (this covers all the cMT2xxx series):	With few exceptions, all our High Performance HMIs support (this covers all the cMT3xxx series HMIs):		
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		
asyWatch	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		
anguages (Up to 24)	Languages (Up to 24)	Languages (Up to 24)		
ibraries	Libraries	Libraries		
1acros	Macros	Macros		
1eters & Gauges	Meters & Gauges	Meters & Gauges		
1odbus	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		
PC UA Client	OPC UA Client	OPC UA Client		
Pperation Log	Operation Log	Operation Log		
ass-Through Mode	Pass-Through Mode	Pass-Through Mode		
icture Object	Picture Object	Picture Object		
icture Viewer	Picture Viewer	Picture Viewer		
e Chart	Pie Chart	Pie Chart		
LC Tag Embedded in Project	PLC Tag Embedded in Project	PLC Tag Embedded in Project		
roject Password	Project Password	Project Password		
ecipes	Recipes	Recipes		
emote Access	Remote Access	Remote Access		
cheduler	Scheduler	Scheduler		
ecurity Levels (Enhanced)	Security Levels (Enhanced)	Security Levels (Enhanced)		
ystem Setting Editor	System Setting Editor	System Setting Editor		
able	Table	Table		
ext Object	Text Object	Text Object		
imer Object	Timer Object	Timer Object		
rend Display (Graphs)	Trend Display (Graphs)	Trend Display (Graphs)		
Iser-Defined Start-Up Screen	User-Defined Start-Up Screen	User-Defined Start-Up Screen		
•	·	-		
tility Manager	Utility Manager	Utility Manager		
NC Server	VNC Server	VNC Server		
Y Plot	XY Plot	XY Plot		
mail (1)	Email (I)	Email (I)		
acro Windows Open / Cycle / Close	Macro Windows Open / Cycle / Close	Macro Windows Open / Cycle / Close		
QTT (I)	MQTT (I)	MQTT (I)		
ring Table (1)	String Table (I)	String Table (I)		
ime Synchronization	Time Synchronization	Time Synchronization		
SB Tethering	USB Tethering	USB Tethering		
NC Viewer	VNC Viewer	VNC Viewer		
	IP Camera	IP Camera		
	USB Camera	USB Camera		
	Animation (Objects, Word Lamp, GIFs, Moving Shape)	Animation (Objects, Word Lamp, GIFs, Moving Shape		
	BACnet Schedule	BACnet Schedule		
	cMT Diagnoser	cMT Viscous Support		
	cMT Viewer Support	cMT Viewer Support		
	CODESYS (2)	CODESYS (2)		
	Media Player	Media Player		
	MQTT - Advanced JSON	MQTT - Advanced JSON		
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub		
	PDF Reader	PDF Reader		
	Web Streaming	Web Streaming		
	WebView	WebView		
		Barcode Scanner (Android Camera)		
		CANbus (3)		
		Database Server		
		File Transfer Protocol (FTP)		
		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 in the B Series (HMI5040B, 5070B, 5100B)
- (2) Not supported on the cMT2166X
 (3) Not Supported on the cMT3072X2, cMT3092X, cMT3152X