

cMT FHDX Series User Manual

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Chapter 1 – Specification

Visit <u>https://maplesystems.com/product/modelname/cmt-fhdx-820/#product-resources</u> for datasheets and additional specification information on Maple Systems FHDX device(s).

1.1 Connector pin designations

51414	00144 80 999	COM2 RS-485		COM3 RS-485
PIN#	COM1 RS-232	2W	4W	2W
1				Data+
2	RxD			
3	TxD			
4				Data-
5		GNE)	
6		Data+	RX+	
7		Data-	RX-	
8			TX+	
9			TX-	

1.2 USB Host port

USB 2.0 full speed host interface supports USB mouse devices, keyboards, printers, barcode scanners, and USB disks. While using an external hard drive, use an external power supply. Do not use USB port to charge external devices.

1.3 Ethernet port

The unit has one 10/100/1G Ethernet port and one 10/100 Ethernet port.



The LED indicators on the Ethernet ports indicate:

- Orange LED: LAN link status
- Green LED: Active status

1.4 DIP switch

Each HMI is equipped with a reset button and a set of DIP switches. When using DIP switches to change modes, the corresponding functions will be triggered.

	SW1	SW2	Mode
	OFF	OFF	Normal mode
ÔN	ON	OFF	Hide HMI System Setting Bar
	OFF	ON	Update OS
	ON	ON	Restore factory default

Note: *Reboot HMI after adjusting DIP switches to enter the corresponding mode.*

1.5 LED indicator

LED indicators show the operation status of HMI.

LED Type	Indication
Power (Orange)	Indicates power status.
CPU (Green)	Indicates CPU status.
Communication (Blue)	Indicates communication status, blinks during communication. When communication is good, it may stay on.

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1.6 Battery

cMT-FHDX requires a coin type lithium battery CR1220 to keep the RTC running.

1.7 Power connection

Power: The unit can be powered by DC power only, voltage range: 24±20% Volts DC, compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 2A.

Connection: To make a connection, use AWG24~12 wires and insulated terminals. Turn the connector screw counterclockwise until the gap is wide open, insert the wire all the way in, and turn the screw clockwise until tight.



Note: Connect positive DC line to the '+' terminal and the DC ground to the '-' terminal.

1.8 HDMI Output

Supports 1920 × 1080 high resolution HDMI output. Displays image via HDMI or DVI interface LED / LCD.

Note: When cMT-FHDX enters backlight saver mode, an external keyboard or mouse is needed for turning on the backlight.





The following shows how cMT-FHDX's HDMI connector can be used.

 Connect to DVI monitor. Use HDMI-to-DVI converter to connect the monitor.



Note: *cMT-FHDX* supports resolution 1920x1080p, use DVI monitor / converter.

2. Directly connect to HDMI monitor.



 Use HDMI splitter to connect multiple HDMI monitors.



 Use HDMI switch to connect two cMT-FHDX with one HDMI monitor.



Note: *If you are not connected to a repeater, the maximum length of HDMI cable allowed is 15m. To reach a longer distance, use a CAT5e cable or a repeater. HDMI converter is used to detect the monitor and correctly output.*

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Chapter 2 - System Settings

For the first time operating the unit, complete the following system settings. When finished, the project files designed using EBPro can be used on cMT-FHDX.

2.1 System Toolbar

After rebooting cMT-FHDX, the Setting window can be opened by tapping the round start button on the screen (video output by HDMI).



How to hide HMI System Setting Bar

When **DIP Switch 1** is set ON, the system setting bar is hidden; when set OFF; the system setting bar is shown. Reboot HMI for the DIP switch setting to take effect.

System register LB-9020 can also be used to show/hide system setting bar.

When **LB-9020** is set ON, the system setting bar is shown, and when the register is set OFF, the system setting bar is hidden.

2.2 System Information

For safety, set a password to protect HMI parameters from being modified by an unauthorized party. By default, the password is 111111.

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Setting	CODESYS Active
System setting	CODESYS Activation Code:
Information	
CODESYS	Restore CODESYS License Restore
General	
P Network	
() Time/Date	
🖉 HMI Name	

CODESYS

Enter the activation code to activate CODESYS.

Setting	General	
System setting	Direction	
 Information 	Brightness	
CODESYS	Audio volume	
General		
-	Popup download window	
Network	FTP Port (default: 21) 21 >	
🕒 Time/Date	FTP client can modify USB/SD data	
🖉 HMI Name	Show Start button	

General

General settings including FTP settings.

Direction - Set screen orientation mode to landscape or portrait by selecting degrees from 0 / 90 / 180 / 270.

Brightness - Adjust screen brightness.

Volume - Adjust volume of HDMI sound output. The monitor used must support DDC/CI.

Popup download window - When enabled, the download window can pop up.

FTP Port - Select an FTP port.

FTP client can modify USB/SD data - When enabled, an FTP client can change the data in the external device connected to HMI.

Show Start button - When enabled, the Start button is shown.

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	MAC address	00:0=:26:14:47:2
Information	MAC address	00.00.20.14.47.5
CODESYS	Obtain an IP address	automatically
	IP address	
General	Subnet mask	
Network	Gateway	
9 Time/Date		
² HMI Name	DNS	

Network

Download project file to HMI via Ethernet. The IP address of the target device (HMI) must be correctly set. Users can choose from obtaining an IP address automatically or entering an IP address manually. To use Email or EasyAccess 2.0, set DNS correctly. ETH1 and ETH2 must use different

domains. When CODESYS is activated, HMI can only use ETH2.

🔒 Setting	T	Time/Date	1111	11
System setting	Date	4	2020-05-18	>
Information	Time		13:49:45	>
CODESYS				·
General				
Network				
() Time/Date				
🖉 HMI Name				

Time/Date

Set HMI local date and time.

Setting		HMI Name
System setting	HMI name	cMT-473E 🔰
Information	1	
CODESYS		
General		
Network		
() Time/Date		
🖉 HMI Name		

HMI name

Set the HMI name for identification when downloading / uploading a project.

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Setting	Clear History
System setting	Clean Recipe
🖬 Clear History	Clean Recipe Database
🏠 Project Management	
System Password	Clean Event Log
SQ Enhanced Security	Clean Data Log
	Clean Operation Log
VNC Setting	
RasyAccess 2.0	
_	

Clear History

Clear historical data stored on HMI.

Setting	Project Mana	gement
System setting	Restart EB Project	Restart
🗑 Clear History		
De Project Management		
System Password		
Security		
VNC Setting		
Ta EasyAccess 2.0		
-		

Project Management

HMI can be rebooted by clicking the Restart button.

Setting	System Passw	ord
System setting	System setting	>
Clear History	Underte austrat	
De Project Management	opdate project	,
A Custom Deserved	History	>
D System Password	User	>
Security		
VNC Setting		
Hase EasyAccess 2.0		
-		

System Password

By default, the password is 111111. User-defined passwords can be used after verification.





Add or delete user accounts and manage user

Enhanced Security

privileges.

Setting	VNC Setting	
System setting	Start VNC	
VNC Setting	VNC multi connection	
HasyAccess 2.0	VNC login password	
Language		
🏧 Input Method		
Printer		
🗙 OS Upgrade		

Setting	EasyAccess 2.0	
System setting	EasyAccess 2.0 Connection	>
Clear History		
🏷 Project Management	Proxy	>
System Password		
Security		
VNC Setting		
EasyAccess 2.0		
-		

VNC Setting

When enabled, the device can be connected remotely using VNC.

EasyAccess 2.0

Activate EasyAccess 2.0 service.



Printer

See Chapter 23.3 in EBPro user manual for more information about printer installation.

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Setting	OS Upgrade
System setting	Image path :
Ha EasyAccess 2.0	
Language	
Input Method	
Printer	
X OS Upgrade	
⊙ Reset options	

OS Upgrade

Select an OS file saved in a USB disk to upgrade OS. When OS is upgrading, do not cut off HMI power. For more information about upgrade steps or notes, see the OS upgrade manual of the model in use.



Reset options

Restore HMI to factory settings.

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2.3 OS Upgrade

Follow the steps below to upgrade OS.

- 1. Copy "MTFirmware.bin" file to a USB disk. (The format of the external storage device should be FAT32.)
- Tap the Start Button, tap the lock icon of Setting, and then enter the password to log in to System Setting.



3. Tap **OS upgrade** and browse for the file path of the OS image. (pccard stands for SD card and usbdisk stands for USB disk).



4. Tap Upgrade in the upper-right corner and OS upgrade will start.

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