

# C-more Selection Guide & Specifications

Model	6" TFT color w/ base features	6" TFT color w/ full features	7" TFT color w/ base features	7" TFT color w/ full features
Specification				
Part Number	EA9-T6CL-R	EA9-T6CL	EA9-T7CL-R	EA9-T7CL
Price	\$00bxb:	\$.000bxa:	\$01h3a:	\$01h39:
Display Actual Size and Type	5.7" TFT color		7.0" TFT color	
Display Viewing Area	4.54" x 3.40" [115.2 mm x 86.4 mm]		6.00" x 3.60" [152.4 mm x 91.4 mm]	
Weight	1.56 lb [710g]	1.59 lb [720g]	1.46 lb [660g]	1.48 lb [670g]
Screen Pixel	320 x 240 (QVGA)		800 x 480 (WVGA)	
Display Brightness	280 nits (typ)		350 nits (typ)	
LCD Panel Dot Pitch	0.18 mm x 0.18 mm		0.190 mm x 0.190 mm	
Color Scale	65,536 colors			
Backlight Average Lifetime*	50,000 hours @ 25°C			
Touch Panel Type**	Four-wire analog resistive, single touch			
Project Memory	26MB		43MB	
Number of Screens	Up to 999 screens – limited by project memory			
Realtime Clock	Realtime clock built into panel, backed up for 30 days at 25°C			
Calendar – Month / Day / Year	Yes - monthly deviation 60sec (Reference)			
Serial Port 1	15-pin D-sub female – RS232C, RS-422/485			
Serial Port 2	N/A	3-wire terminal block – RS-485	N/A	3-wire terminal block – RS-485
Serial Port 3	N/A	RJ-12 modular jack – RS-232C	N/A	RJ-12 modular jack – RS-232C
USB Port – Type B	USB 2.0 High speed (480 Mbps) Type B – Download/Program – Max. cable length 15-feet			
USB Port – Type A	USB 2.0 High speed (480 Mbps) Type A – for USB device options – Max. cable length 15-feet – Bus Power – Less than 200mA at 5VDC			
Ethernet Port	N/A	10/100 Base-T, auto MDI/MDI-X		
Ethernet Port - Expansion Module	N/A	EA-ECOM	N/A	EA-ECOM
Audio Line Out	N/A	3.5 mm mini jack – requires amplifier and speaker(s)	N/A	3.5 mm mini jack – requires amplifier and speaker(s)
Mic In (Future)	N/A	3.5 mm mini jack	N/A	3.5 mm mini jack
SD Card Slot	1 slot supports max 2GB (SD,) max 32GB (SDHC)			
HDMI Video Out	N/A			
HDMI Supported Resolution	N/A			
Supply Power	10.2-26.4 VDC Class 2 or SELV (Safety Extra-Low Voltage) Circuit or Limited Energy Circuit (LEC), or use the AC/DC Power Adapter, EA-AC, to power the touch panel from a 100-240 VAC, 50/60 Hz power source. Reverse Polarity Protected			
Power Consumption	16.0 W 1.30 A @ 12VDC 0.66 A @ 24VDC			
Internal Fuse (non-replaceable)	4.0 A			
Altitude	Up to 2000m (6562ft)			
Operating Temperature	0 to 50°C (32 to 122°F) Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock)			
Storage Temperature	-20 to +60°C (-4 to +140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)			
Humidity	5-95% RH (non-condensing)			
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted			
Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity) (Local Test) RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1µs pulse			
Withstand Voltage	1000VAC, 1min. (FG to Power supply )			
Insulation Resistance	> 10M ohm @ 500VDC (FG to Power supply )			
Vibration	IEC60068-2-6 (Test Fc)			
Shock	IEC60068-2-27 (Test Ea)			
Emission	EN55011 Class A (Radiated RF emission)			
Enclosure	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)		NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 (not tested by UL) (When mounted correctly)	
Agency Approvals	UL508, E157382, Class 1, Div 2, Groups A, B, C CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2		UL61010, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2	
NOTES:	*The backlight average lifetime is defined as the average usage time it takes before the brightness becomes 50% of the initial brightness. The lifetime of the backlight depends on the ambient temperature. The lifetime will decrease under low or high temperature usage. **The touchscreen is designed to respond to a single touch. If it is touched at multiple points at the same time, an unexpected object may be activated.			

# C-more Selection Guide & Specifications

Model	Specification	8" TFT color w/ full features	10" TFT color w/ full features	10" TFT color Widescreen w/ full features
	Part Number	<a href="#">EA9-T8CL</a>	<a href="#">EA9-T10CL</a>	<a href="#">EA9-T10WCL</a>
	Price	\$;000bxc:	\$;000bx7:	\$;001o4]:
	Display Actual Size and Type	8.4" TFT color	10.4" TFT color	10.1" TFT color
	Display Viewing Area	6.71" x 5.03" [170.4 mm x127.8mm]	8.31" x 6.24" [211.2 mm x 158.4 mm]	8.77" x 4.93" [222.7 mm x 125.3 mm]
	Weight	2.93 lb [1330g]	4.19 lb [1900g]	2.43 lb [1100g]
	Screen Pixel	800 x 600 (SVGA)		1024 x 600 (WSVGA)
	Display Brightness	310 nits (typ)	280 nits (typ)	240 nits (typ)
	LCD Panel Dot Pitch	0.213 mm x 0.213 mm	0.264 mm x 0.264 mm	0.218 mm x 0.209 mm
	Color Scale	65,536 colors		
	Backlight Average Lifetime*	50,000 hours @ 25°C		
	Touch Panel Type**	Four-wire analog resistive, single touch		
	Project Memory	43MB		
	Number of Screens	Up to 999 screens – limited by project memory		
	Realtime Clock	Realtime clock built into panel, backed up for 30 days at 25°C		
	Calendar – Month / Day / Year	Yes - monthly deviation 60sec (Reference)		
	Serial Port 1	15-pin D-sub female – RS232C, RS-422/485		
	Serial Port 2	3-wire terminal block – RS-485		
	Serial Port 3	RJ-12 modular jack – RS-232C		
	USB Port – Type B	USB 2.0 High speed (480 Mbps) Type B – Download/Program – Max. cable length 15-feet		
	USB Port – Type A	USB 2.0 High speed (480 Mbps) Type A – for USB device options – Max. cable length 15-feet – Bus Power – Less than 200mA at 5VDC		
	Ethernet Port	10/100 Base-T, auto MDI/MDI-X		
	Ethernet Port - Expansion Module	<a href="#">EA-ECOM</a>		
	Audio Line Out	3.5 mm mini jack – requires amplifier and speaker(s)		
	Mic In (Future)	3.5 mm mini jack		
	SD Card Slot	1 slot supports max 2GB (SD,) max 32GB (SDHC)		
	HDMI Video Out	N/A		
	Supply Power	10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), or use the AC/DC Power Adapter, <a href="#">EA-AC</a> , to power the touch panel from a 100-240 VAC, 50/60 Hz power source. Reverse Polarity Protected		
	Power Consumption	18.0 W 1.50 A @ 12VDC 0.75 A @ 24VDC	17.0W 1.42A @ 12 VDC 0.71A @ 24 VDC	
	Internal Fuse (non-replaceable)	6.3 A		
	Altitude	Up to 2000m (6562ft)		
	Operating Temperature	0 to 50°C (32 to 122°F) Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock)		
	Storage Temperature	-20 to +60°C (-4 to +140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)		
	Humidity	5-95% RH (non-condensing)		
	Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted		
	Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 (Conducted) EN61000-4-8 (Power f0requency magnetic field immunity) (Local Test) RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1µs pulse		
	Withstand Voltage	1000VAC, 1min. (FG to Power supply )		
	Insulation Resistance	> 10M ohm @ 500VDC (FG to Power supply )		
	Vibration	IEC60068-2-6 (Test Fc)		
	Shock	IEC60068-2-27 (Test Ea)		
	Emission	EN55011 Class A (Radiated RF emission)		
	Enclosure	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)		
	Agency Approvals	UL508, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2		
NOTES: *The backlight average lifetime is defined as the average usage time it takes before the brightness becomes 50% of the initial brightness. The lifetime of the backlight depends on the ambient temperature. The lifetime will decrease under low or high temperature usage. **The touchscreen is designed to respond to a single touch. If it is touched at multiple points at the same time, an unexpected object may be activated.				

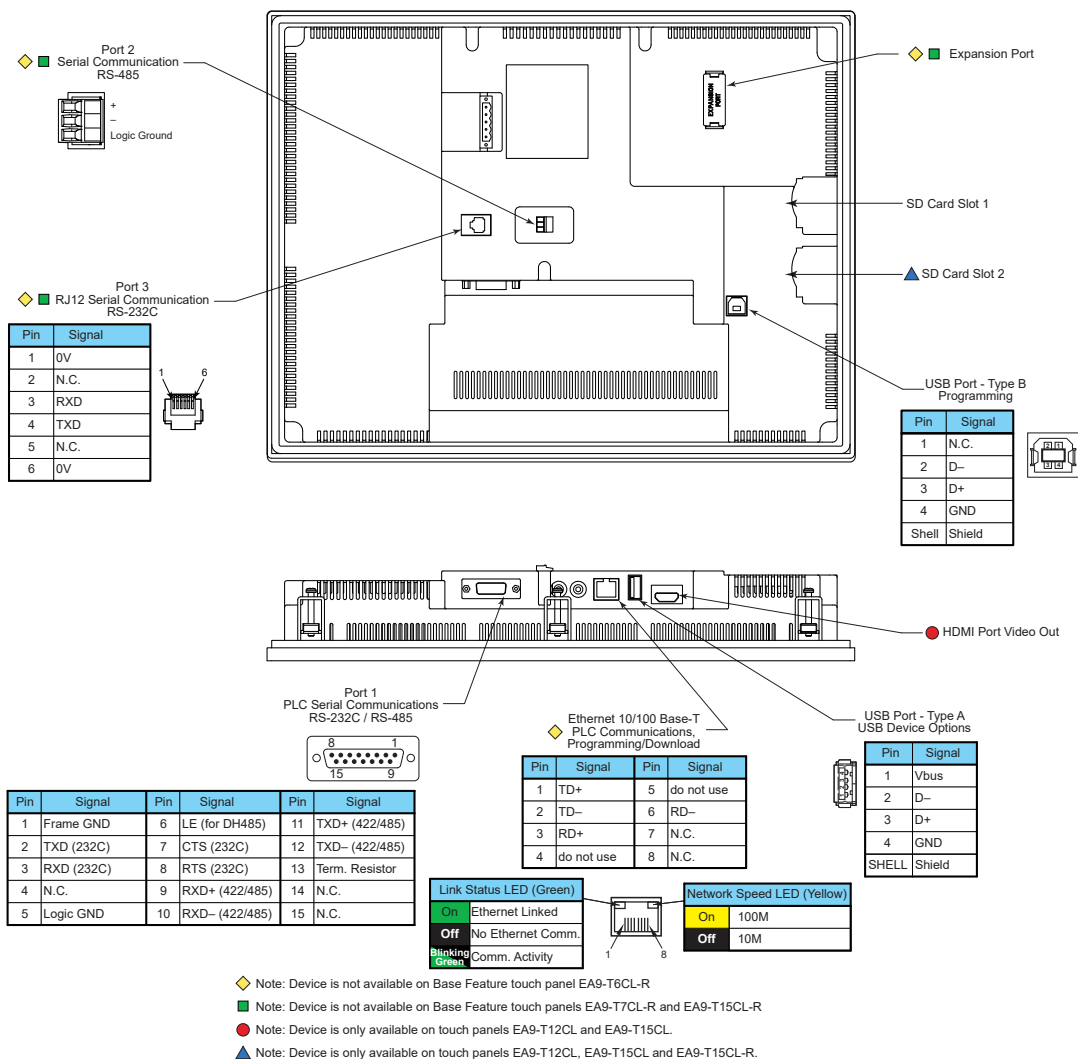
# C-more Selection Guide & Specifications

Model	12" TFT color w/ full features		15" TFT color w/ base features		15" TFT color w/ full features	
Specification						
Part Number	EA9-T12CL		EA9-T15CL-R		EA9-T15CL	
Price	\$;000bx8:		\$;001o4z:		\$;000bx9:	
Display Actual Size and Type	12.1" TFT color		15.0" TFT color			
Display Viewing Area	9.69" x 7.26" [246.0 mm x 184.5 mm]		11.97" x 8.98" [304.1 mm x 228.0 mm]			
Weight	4.89 lb [2200g]		6.46 lb (2930g)		6.50 lb [2950g]	
Screen Pixel	800 x 600 (SVGA)		1024 x 768 (XGA)			
Display Brightness	280 nits (typ)					
LCD Panel Dot Pitch	0.3075 mm x 0.3075 mm		0.297 mm x 0.297 mm			
Color Scale	65,536 colors					
Backlight Average Lifetime*	50,000 hours @ 25°C					
Touch Panel Type**	Four-wire analog resistive, single touch					
Project Memory	43MB					
Number of Screens	Up to 999 screens – limited by project memory					
Realtime Clock	Realtime clock built into panel, backed up for 30 days at 25°C					
Calendar – Month / Day / Year	Yes - monthly deviation 60sec (Reference)					
Serial Port 1	15-pin D-sub female – RS232C, RS-422/485					
Serial Port 2	3-wire terminal block – RS-485		N/A		3-wire terminal block – RS-485	
Serial Port 3	RJ-12 modular jack – RS-232C		N/A		RJ-12 modular jack – RS-232C	
USB Port – Type B	USB 2.0 High speed (480 Mbps) Type B – Download/Program – Max. cable length 15-feet					
USB Port – Type A	USB 2.0 High speed (480 Mbps) Type A – for USB device options – Max. cable length 15-feet – Bus Power – Less than 200mA at 5VDC					
Ethernet Port	10/100 Base-T, auto MDI/MDI-X					
Ethernet Port - Expansion Module	EA-ECOM		N/A		EA-ECOM	
Audio Line Out	3.5 mm mini jack – requires amplifier and speaker(s)		N/A		3.5 mm mini jack – requires amplifier and speaker(s)	
Mic In (Future)	3.5 mm mini jack		N/A		3.5 mm mini jack	
SD Card Slot	2 slots support max 2GB (SD), max 32GB (SDHC)					
HDMI Video Out	HDMI Type A Port		N/A		HDMI Type A Port	
HDMI Supported Resolution	800 x 600 (SVGA)		N/A		1024 x 768 (XGA)	
Supply Power	10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), or use the AC/DC Power Adapter, EA-AC, to power the touch panel from a 100-240 VAC, 50/60 Hz power source. Reverse Polarity Protected					
Power Consumption	21.0 W 1.75 A @ 12VDC 0.88 A @ 24VDC		29.0 W 2.40 A @ 12VDC 1.20 A @ 24VDC			
Internal Fuse (non-replaceable)	6.3 A					
Altitude	Up to 2000m (6562ft)					
Operating Temperature	0 to 50°C (32 to 122°F) Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock)					
Storage Temperature	–20 to +60°C (–4 to +140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)					
Humidity	5-95% RH (non-condensing)					
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted					
Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity) (Local Test) RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1µs pulse					
Withstand Voltage	1000VAC, 1min. (FG to Power supply )					
Insulation Resistance	> 10M ohm @ 500VDC (FG to Power supply )					
Vibration	IEC60068-2-6 (Test Fc)					
Shock	IEC60068-2-27 (Test Ea)					
Emission	EN55011 Class A (Radiated RF emission)					
Enclosure	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)					
Agency Approvals	UL508, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2					
NOTES:	*The backlight average lifetime is defined as the average usage time it takes before the brightness becomes 50% of the initial brightness. The lifetime of the backlight depends on the ambient temperature. The lifetime will decrease under low or high temperature usage. **The touchscreen is designed to respond to a single touch. If it is touched at multiple points at the same time, an unexpected object may be activated.					

# C-more Selection Guide & Specifications

Specification	EA9 Headless HMI
<b>Part Number</b>	<a href="#">EA9-RHMI</a>
<b>Price</b>	\$,03!sd:
<b>Display</b>	No Display
<b>Weight</b>	0.59 lb [269g]
<b>Project Memory</b>	82MB
<b>Number of Screens</b>	Up to 999 screens – limited by project memory
<b>Realtime Clock</b>	Realtime clock built into panel, backed up for 30 days at 25°C
<b>Calendar – Month / Day / Year</b>	Yes - monthly deviation 60sec (Reference)
<b>Serial Port 1</b>	15-pin D-sub female – RS232C, RS-422/485
<b>Serial Port 2</b>	3-wire terminal block – RS-485
<b>USB Port – Type B</b>	USB 2.0 High speed (480 Mbps) Type B - Download/Program Max cable length - 15 ft.
<b>USB Port – Type A</b>	USB 2.0 High speed (480 Mbps) Type A - for USB device options Max cable length - 15ft Bus Power – Less than 500mA at 5VDC
<b>Supported Touch Screen</b>	ELO™ Single Touch Resistive/SAW, EETI eGalax Single Touch Resistive and pCap Compatible with AutomationDirect Atlas Monitors. See the EA-RHMI user manual for more compatible touchscreen monitors
<b>Ethernet Port</b>	10/100 Base-T, auto MDI/MDI-X
<b>Ethernet Port - Expansion Module</b>	<a href="#">EA-ECOM</a>
<b>Audio Line Out</b>	Audio supported through HDMI connection
<b>Mic In (Future)</b>	N/A
<b>SD Card Slot</b>	1 slot support max 2GB (SD), max 32GB (SDHC)
<b>HDMI Video Out</b>	HDMI Type A Port
<b>HDMI Supported Resolutions</b>	640 x 480 (VGA) 60Hz 720 x 480 (SD) 60Hz 1024 x 768 (XGA) 60Hz 1280 x 720 (HD) 60Hz With automatic negotiation function for HDMI displays
<b>Supply Power</b>	10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected
<b>Power Consumption</b>	12.0 W 1.00 A @ 12VDC 0.50 A @ 24VDC
<b>Internal Fuse (non-replaceable)</b>	4.0 A
<b>Altitude</b>	Up to 2000m (6562ft)
<b>Operating Temperature</b>	0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock)
<b>Storage Temperature</b>	-20 to 60°C (-4 to 140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)
<b>Humidity</b>	5-95% RH (non-condensing)
<b>Environment</b>	For use in Pollution Degree 2 environment, no corrosive gases permitted
<b>Noise Immunity</b>	(EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV ,positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line 0.5kV line to earth EN61000-4-6 (Conducted): 10V, 0.15MHz - 80MHz EN61000-4-8 (Power frequency magnetic field immunity): 30A/m (Local test) RFI, (145MHz, 440MHz 10W @10cm) Impulse 1000V @ 1µs pulse
<b>Withstand Voltage</b>	1000VAC, 1min. (FG to Power supply )
<b>Insulation Resistance</b>	> 10M ohm @ 500VDC (FG to Power supply )
<b>Vibration</b>	IEC60068-2-6 (Test Fc) 5-9Hz: 3.5mm amplitude, 9-150Hz 1.0G 10 sweep cycles per axis on each of 3 mutually perpendicular axes
<b>Shock</b>	IEC60068-2-27 (Test Ea) 15G peak, 11ms duration, 3 shocks in each direction per axis, on 3 mutually perpendicular axes
<b>Emission</b>	EN55011 Class A (Radiated RF emission)
<b>Agency Approvals</b>	UL61010, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2

# C-more Communication Ports



## Ethernet Port

The Ethernet port has several uses:

- Download program to panel
- Communicate to PLCs/PCs
- Send e-mail
- Access FTP server
- Act as a Webserver (Secure HTTPs)
- Remote Internet access

The Ethernet port has an RJ-45 8-wire modular connector with green and yellow LEDs.

- The yellow LED indicates network speed – off for a 10 Mbps connection and illuminated for a 100 Mbps connection.
- The green LED indicates link status and illuminates when a link is established.

Note: EA6-T6CL-R does not include an Ethernet port, and does not have these capabilities.

## Expansion Port

The expansion port supports the EA-ECOM module to provide a second Ethernet Port for all full featured models.

## USB Port B

Program **C-more** via the USB programming port. It's fast and easy, with no baud rate settings, parity, or stop bits to worry about. We stock standard USB cables for your convenience. USB Port B can be used to upload or download projects to and from a PC.

## USB Port A

The Universal Serial Bus (USB) Port A is a standard feature on all models and can be used to connect various USB HID (Human Input Device) devices to the panel, such as the following:

- USB flash drives ([USB-FLASH](#))
- USB keyboards
- USB barcode scanners
- USB card scanners

**C-more** can log data to the USB flash drive as well as load projects to the panel from the pen drive. You can also back up project files and panel firmware.

## Sound Interface (Audio Line Out)

When attached to an amplifier and speaker(s), **C-more** can play warning sounds or pre-recorded messages such as: "conveyor is jammed". **C-more** supports WAV type files. The output is stereo.

## Serial Port

**Port 1** - Connect to your serial controller network via Port 1. Port 1 is a 15-pin port that supports RS-232 or RS-422/485.

**Port 2** - Connect your RS-485 network via Port 2. Port 2 is provided with a 3-wire removable terminal block.

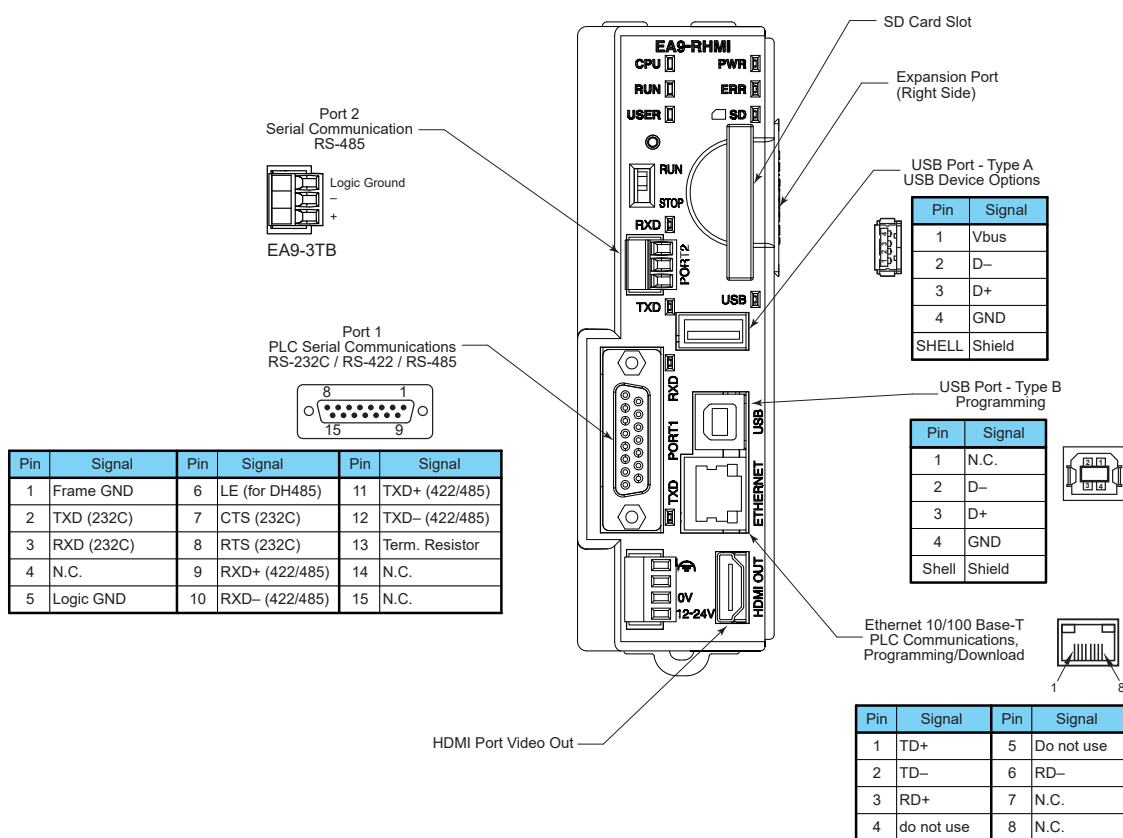
**Port 3** - Connect to your RS-232C device via Port 3. Port 3 is an RJ12 connection.

## HDMI Video Out

EA9-T12CL and EA9-T15CL include an HDMI Type A port to provide video output to a projector or remote monitor.



# C-more EA9-RHMI Communication Ports



## Ethernet Port

The Ethernet port has several uses:

- Download program to panel
- Communicate to PLCs/PCs
- Send e-mail
- Access FTP server
- Act as a Webserver (Secure HTTPs)
- Remote Internet access

The Ethernet port has an RJ-45 8-wire modular connector with green and yellow LEDs.

- The yellow LED indicates network speed – off for a 10 Mbps connection and illuminated for a 100 Mbps connection.
- The green LED indicates link status and illuminates when a link is established.

## Expansion Port

The expansion port supports the EA-ECOM module to provide a second Ethernet Port.

## USB Port B

Program **C-more** via the USB programming port. It's fast and easy, with no baud rate settings, parity, or stop bits to worry about. We stock standard USB cables for your convenience. USB Port B can be used to upload or download projects to and from a PC.

## USB Port A\*

The Universal Serial Bus (USB) Port A can be used to connect various USB HID (Human Input Device) devices to the panel, such as the following:

- USB touchscreen (ELO™ Single Touch Resistive/SAW, EETI eGalax Single Touch Resistive and pCap touchscreens)
- USB mouse
- USB keyboard
- USB flash drives (USB-FLASH)
- USB barcode scanner
- USB card scanner

**C-more** can log data to the USB flash drive as well as load projects to the panel from the pen drive. You can also back up project files and panel firmware.

\* 500mA maximum current available.  
Powered USB hub may be required for some devices

## Serial Port

**Port 1** - Connect to your serial controller network via Port 1. Port 1 is a 15-pin port that supports RS-232 or RS-422/485.

**Port 2** - Connect your RS-485 network via Port 2. Port 2 is provided with a 3-wire removable terminal block.

## HDMI Out Port

EA9-RHMI includes an HDMI Type A port to provide video / audio output to a projector or remote monitor. Supported resolutions are...

- 640 x 480 (VGA) 60Hz
- 720 x 480 (SD) 60Hz
- 1024 x 768 (XGA) 60Hz
- 1280 x 720 (HD) 60Hz