



MC-7130-MP Series Quick Installation Guide

Second Edition, November 2012

Overview

Standard MOXA MC-7130-MP marine computers are powered by the third generation Intel® Core™ i3 3120ME processor. With eight NMEA 0183 ports, four DB9 serial ports, four Gigabit Ethernet ports, six USB 2.0 ports, two SuperSpeed USB 3.0 ports, and eight digital I/O terminal blocks, this computer offers a full range of I/O connectivity in a powerful, compact package. In addition, it also provides two PCI slots alongside a PCIe Gen 3 slot (x16), allowing even more versatile peripheral expansion opportunities for industrial applications.

Package Checklist

Before installing the MC-7130-MP, verify that the package contains the following items:

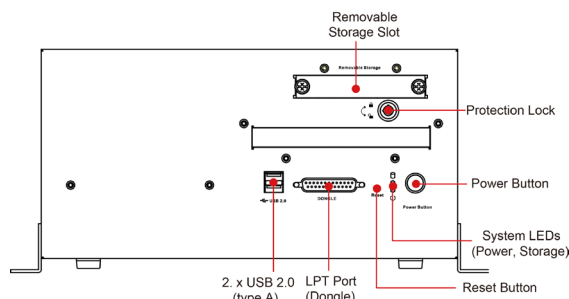
- 1 MC-7130-MP marine computer
- 2 removable storage protection keys
- 8 screws for SSD mounts
- Wall mounting kit, with 6 screws
- 1 terminal block for DC power input
- 2 6-pin digital input terminal blocks
- 2 8-pin digital output terminal blocks
- 8 terminal blocks for NMEA 0183 ports
- Documentation and driver CD
- Quick Installation Guide (printed)
- Warranty card

NOTE: Please notify your sales representative if any of the above items are missing or damaged.

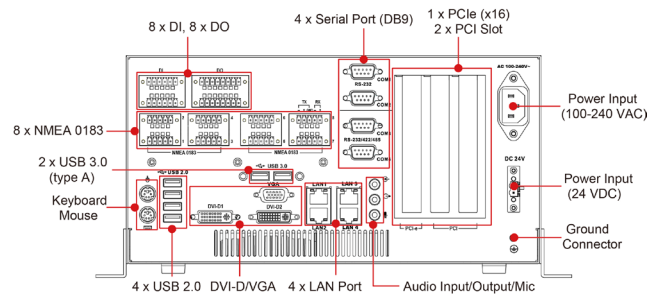
MC-7130-MP Panel Layout

The following figures show the panel layout of the MC-7130-MP.

MC-7130-MP Front View



MC-7130-MP Rear View



LED Indicators

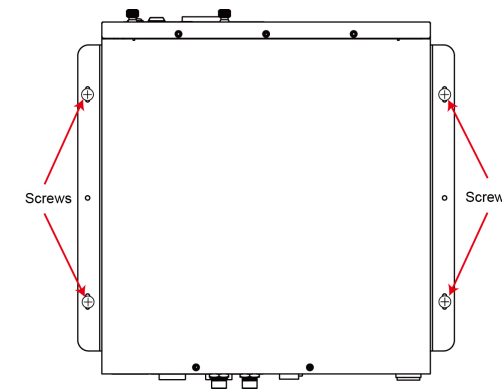
The following table describes the LED indicators of the MC-7130-MP.

LED Name	LED Color	LED Function
Power (on front panel)	Green	Power is on and functioning normally
	Off	Power is off or there is an error
Storage (on front panel)	Red (on)	Storage drive is functioning properly
	Red (blinking)	Drive is accessing or writing data
	Off	No activity
LAN (on connectors)	Green	100 Mbps Ethernet mode
	Yellow	1000 Mbps (Gigabit) Ethernet mode
	Off	No activity or 10 Mbps Ethernet mode

Installing the MC-7130-MP

Wall or Cabinet Mounting

The MC-7130-MP provides brackets for both wall and cabinet mounts. Attach the brackets with the screws included on the sides of the chassis.



Connector Description

Power Connector

The MC-7130-MP comes with a 100 to 240 VAC power input, and has another 24 VDC terminal block power input. If power is supplied properly, the **Power** LED will light up.

Grounding the MC-7130-MP

Proper grounding and wire routing help to limit the effects of noise from electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting the power.



ATTENTION

This product is intended to be mounted to a well-grounded mounting surface, such as a metal panel.

Earth Ground:

The MC-7130-MP has an earthing/grounding connector on the rear panel. There is a ground symbol (⊕) next to the connector. Connect the EG wire to an appropriate grounded metal surface.

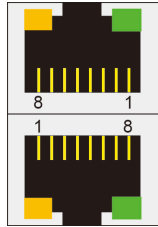
VGA and DVI-D Outputs

For connecting display monitors, the MC-7130-MP comes with a female D-sub 15 pin (DA-15) VGA interface on the rear panel, and has an additional pair of DVI-D interfaces on the rear panel.

Ethernet Ports

The four 10/100/1000 Mbps Ethernet ports use RJ45 connectors.

Pin	10/100 Mbps	1000 Mbps
1	ETx+	TRD(0)+
2	ETx-	TRD(0)-
3	ERx+	TRD(1)+
4	-	TRD(2)+
5	-	TRD(2)-
6	ERx-	TRD(1)-
7	-	TRD(3)+
8	-	TRD(3)-



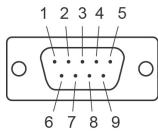
PCI and PCIe Slots

The MC-7130-MP comes with 2 universal PCI slots (3.3/5 V) that can connect to various peripheral cards, such as radar or Profibus cards. A third generation PCIe x16 slot is also available for connecting an additional VGA graphics card (or other peripherals). To insert a peripheral card, remove the screws and open the chassis cover, then remove the covering plates and insert the peripheral card into the slot.

Serial Ports

The serial ports use DB9 connectors. COM1 and COM2 support RS-232, and COM3 and COM4 support RS-232/422/485.

Pin	RS-232	RS-422	RS-485 (4-wire)	RS-485 (2-wire)
1	DCD	TxDA(-)	TxDA(-)	-
2	RxD	TxDB(+)	TxDB(+)	-
3	TxD	RxDB(+)	RxDB(+)	DataB(+)
4	DTR	RxDA(-)	RxDA(-)	DataA(-)
5	GND	GND	GND	GND
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-

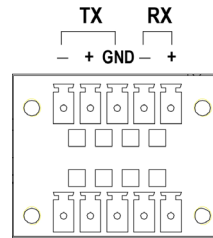


Removable Storage Tray

The MC-7130-MP computer has a removable storage drive tray on the front panel, and an internal storage drive expansion slot inside the chassis. To provide better system safety, protection keys are provided to lock the removable tray.

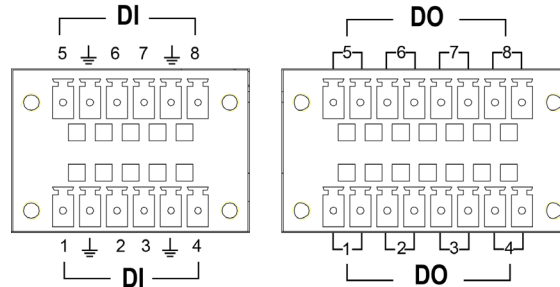
NMEA 0183 Ports

The MC-7130-MP comes with 8 NMEA 0183 ports on the rear panel. See the following figure for the NMEA pin outs.



Digital Input/Output Channels

The MP-7130-MP comes with 8 digital input and 8 digital output channels on the rear panel. These input/output channels can be connected via the terminal blocks which have been included in the package. See the following figure for the pin assignments.



USB Hosts

The MC-7130-MP has six USB 2.0 and two SuperSpeed USB 3.0 type A ports, respectively supported by EHCI and xHCI for full high speed bandwidth. The USB ports support peripherals like keyboards, mice, and other devices such as portable HDDs or DVD-ROMs.

Audio Interface

The MC-7130-MP comes with an audio input, an audio output, and a microphone input, allowing users to connect a speaker system, an earphone, or a microphone.

Reset Button

Press the **Reset Button** on the front panel of the MC-7130-MP for a hot system reboot.

Real Time Clock

The MC-7130-MP's real time clock (RTC) is powered by a lithium battery. We strongly recommend that you do not replace the lithium battery without help from a qualified Moxa support engineer. If you need to change the battery, contact the Moxa RMA service team at http://www.moxa.com/rma/about_rma.aspx.



ATTENTION

There is a risk of explosion if the battery is replaced with an incorrect type of battery.

Powering on the MC-7130-MP

To power on the MC-7130-MP, you may connect the **Terminal Block to Power Jack Converter** to the MC-7130-MP's DC terminal block (located on the rear panel) and then connect the power adaptor, or you may plug in the AC power cord. Press the **Power** button to turn on the computer. It takes about 30 seconds for the system to boot up. Once the system is ready, the **Power** LED will light up.

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