MC-1100 Series
Quick Installation Guide

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Overview

The Moxa MC-1100 series DIN-rail mountable, fanless, x86 embedded computers are based on the Intel® Atom™ E3800 series processor. These computers feature the most reliable I/O design to maximize connectivity and support multiple wireless modules (Wi-Fi/3G/LTE), making them suitable for a diverse range of communication applications.

Powered by a wide operating temperature range (-40 to 70°C) and Safety/EMI/EMS compliances, the MC-1100 series is ideal for intelligent computing and communication solutions in critical environments, including marine communication, Oil & Gas field site monitoring, and transportation.

The MC-1100 series comes with hardware monitoring features built in for device I/O status monitoring and alerts, system temperature monitoring and alerts, and system power management. Monitoring system status closely makes it easier to recover from errors and provides the most reliable platform for your applications.

Package Checklist

Before installing the MC-1100, verify that the package contains the following items:

• MC-1100 embedded computer
• Terminal block to power jack converter
• DIN-rail mounting kit
• Quick installation guide (printed)
• Documentation and software CD or DVD
• Warranty card

Please notify your sales representative if any of the above items are missing or damaged.
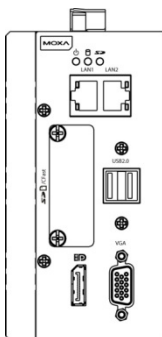
MC-1111 Panel Layout

The following figures show the panel layouts of the MC-1111 series:
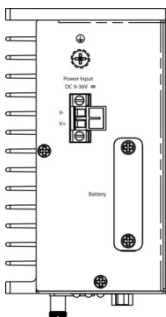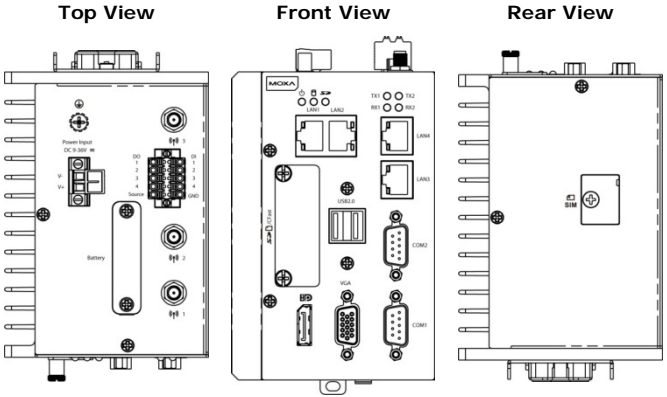

Top View   **Front View**

MC-1121 Panel Layout

The following figures show the panel layouts of the MC-1121 series:

Top View   **Front View**   **Rear View**

LED Indicators

The following table describes the LED indicators located on the front panel of the MC-1100:

| LED Name		Status	Function
Power	⏻	Green	Power is on and computer is function normally.
		Off	Power is off.
Storage 1 (CFast)		Yellow	Blinking: Data is being transmitted.
		Off	No data transmission.
Storage 2 (SD)		Yellow	Blinking: Data is being transmitted.
		Off	No data transmission.
LAN 1/2/3/4 (LAN 3/4 only on MC-1121)		Green	Steady On: 100 Mbps Ethernet link. Blinking: Data is being transmitted.
		Yellow	Steady On: 1000 Mbps Ethernet link. Blinking: Data is being transmitted.
		Off	10 Mbps Ethernet link or LAN is not connected.
Tx 1/2 (only on MC-1121)		Green	Blinking: Data is being transmitted.
		Off	Not connected.
Rx 1/2 (only on MC-1121)		Yellow	Blinking: Data is being transmitted.
		Off	Not connected.

Installing the MC-1100

DIN-Rail Mounting

The MC-1100 comes with a DIN-rail mounting kit.
To install the DIN-rail mounting kit, do the following:

Installation:
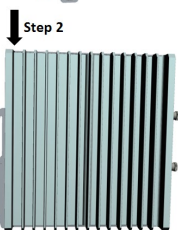
STEP 1:
Use 4 screws included with the kit to attach the DIN-rail mounting bracket to the MC-1100's rear panel and tighten the screws to secure the bracket to the MC-1100.
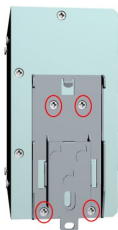
STEP 2:
Insert the top of the DIN rail into the slot just below the upper hook of the DIN-rail mounting kit.
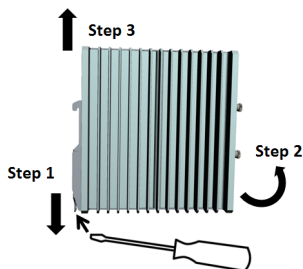
STEP 3:
Press the MC-1100 towards the DIN-rail until it snaps into place.

Removal:

STEP 1:
Pull down the latch on the mounting kit with a screwdriver.

STEP 2 & 3:
Slightly pull the MC-1100 forward and lift up to remove it from the DIN rail.

Wall or Cabinet Mounting

The MC-1100 can be installed on a wall by using the optional wall-mounting kit. This wall-mounting kit must be purchased separately.
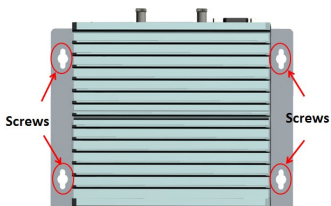
STEP 1:
Use two screws for each bracket and attach the brackets to the rear of the MC-1100.
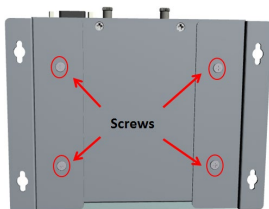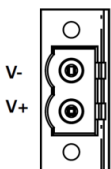
STEP 2:
Use two screws per side to attach the MC-1100 to a wall or cabinet.

Connector Description

Power Connector

Power Input
DC 9-36V ⎓

Use an LPS (9-36 VDC) or Class 2 power cord to connect to the MC-1100's terminal block to power jack converter and then turn on the power. If the power is supplied properly, the Power LED will light up. The OS is ready when the Power LED glows a solid green.
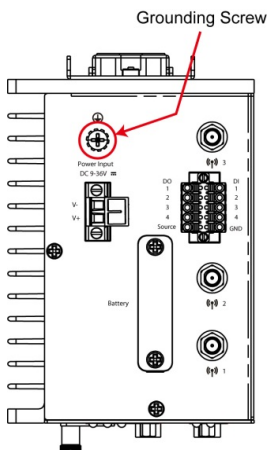
V-
V+

Grounding the MC-1100

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the grounding screw (M4) to the grounding surface prior to connecting the power as shown in the illustrations below:

MC-1111
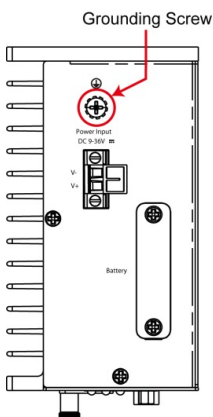
MC-1121

Ethernet Ports

The 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)-
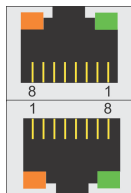
Serial Ports

The serial ports use DB9 connectors. Each port can be configured by software for RS-232, RS-422, or RS-485 port. The pin assignments for the ports are shown in the following table:

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	–	–	–
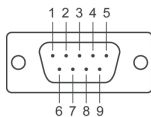
SD Slot

The MC-1100 has an SD slot for storage expansion. The SD slot allows users to plug in an SD 3.0 standard SD card. To install an SD card, gently remove the outer cover, and then insert the SD card into the slot.

USIM Slot

The MC-1100 has a USIM slot for 3G/LTE wireless Internet connections. To install a USIM card, gently remove the outer cover from the bottom, and then insert the USIM card into the slot.

USB Hosts

The MC-1100 has 2 USB 2.0 Type A connectors. 2 USB 2.0 ports are located on the front panel. The port supports keyboard and mouse, and can also be used to connect a flash disk for storing large amounts of data.

DI/DO

The MC-1100 is provided with a 2x5 terminal block that has 4 digital inputs and 4 digital outputs.