MOXA®

MC-5157-AC/DC Series
Quick Installation Guide

Second Edition, July 2012

Overview

The MC-5157-AC/DC computers use the Intel® Core™ i5 520E processor and come with 4 serial ports, 2 Gigabit Ethernet ports, 6 USB hosts, and 8 NMEA ports . The computers offer high performance and versatile peripherals for industrial applications.

Package Checklist

Before installing the MC-5157-AC/DC, verify that the package contains the following items:
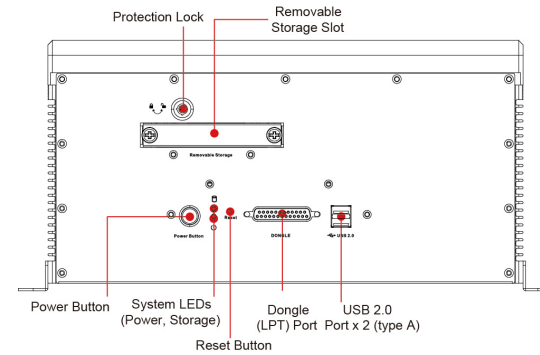
- 1 MC-5157-AC/DC embedded computer
- 2 removable storage protection keys
- 8 screws for internal and removable SSD
- Terminal block for power input (DC model only)
- 8 terminal blocks for NMEA ports
- Documentation and driver CD
- Quick Installation Guide (printed)
- Warranty card
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NOTE: Please notify your sales representative if any of the above items are missing or damaged.
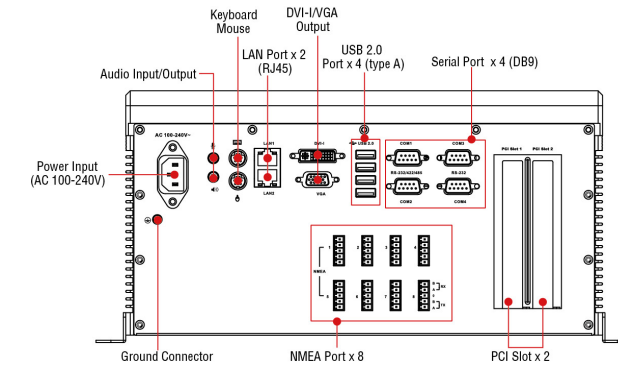
MC-5157-AC/DC Panel Layout

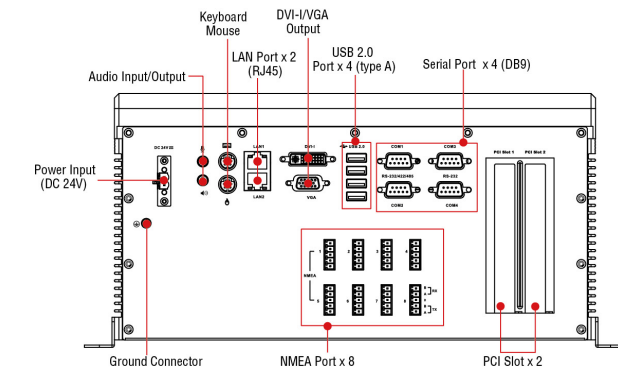The following figures show the panel layouts of the MC-5157-AC/DC.

MC-5157-AC/DC Front View

MC-5157-AC Rear View
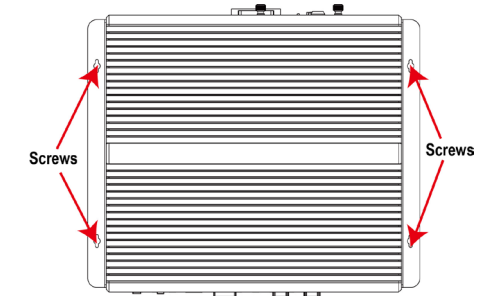

MC-5157-DC Rear View

LED Indicators

The following table describes the LED indicators located on the front panel of the MC-5157-AC/DC.

LED Name	LED Color	LED Function
Power	Green	Power is on and functioning normally
	Off	Power is off or power error exists
Storage	Red (on)	SSD is inserted and detected
	Red (blinking)	SSD is reading/writing
	Off	No activity
LAN	Green	100 Mbps Ethernet mode
	Yellow	1000 Mbps (Gigabit) Ethernet mode
	Off	No activity or 10 Mbps Ethernet mode

Installing the MC-5157-AC/DC

Wall or Cabinet Mounting

The MC-5157-AC/DC has been pre-installed with two brackets on both ends of the computer. Use two screws per side to attach the MC-5157-AC/DC to a wall or cabinet.

Connector Description

Power Connector

The AC model has a 100 to 240 VAC power input, and the DC model has a 24 VDC power input (via the terminal block). If power is supplied properly, the Power LED will light up. The OS is ready when the Ready LED lights up to a solid green.

Grounding the MC-5157-AC/DC

Grounding and wire routing help to limit the effects of noise due to 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:

Both the AC and DC models have earth ground connectors on the rear panel for grounding. There is an earth ground mark next to

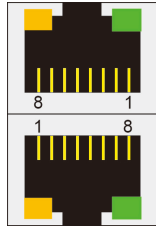the connector. Connect the EG wire to an appropriate grounded metal surface.

VGA and DVI-I Outputs

The MC-5157-AC/DC comes with a D-Sub 15-pin female connector on the front panel to connect a VGA CRT monitor, and has a DVI-I connector on the front panel to connect the panel to a DVI-I cable.

Ethernet Ports

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

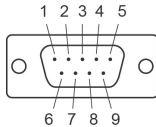| Pin	10/100 Mbps	1000 Mbps
1	ETx+	TRD(0)+
2	ETx-	TRD(0)-
3	ERx+	TRD(1)+
4	–	TRD(2)+
5	–	TRD(2)-
6	ERx-	TRD(1)-
7	–	TRD(3)+
8	–	TRD(3)-

PCI Slots

The MC-5157-AC/DC comes with 2 universal PCI slots (3.3/5 V) that can connect to various peripheral cards, such as radar or Profitbus cards. The PCI slots are located on the rear panel. Simply remove the screws on the back of the computer, and insert the card into the slot.

Serial Ports

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

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 Trays

MC-5157-AC/DC computers have a removable hard drive tray on the front panel, and a hard drive expansion slot that is accessible from the bottom panel. To provide better system safety, protection keys are provided to lock the removable tray.
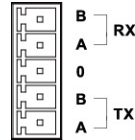

IMPORTANT!

Moxa is continually testing SSDs for compatibility with MC-51XX computers. As of June 2012, the Memoright MRSAJ6C064GC125C00 and Memoright MRSAD4B060GC225C00 models of SSD have been fully approved for use with MC-51XX devices. However, this is only a partial list and one that is continually growing; for a more up-to-date list of which SSDs are certified as compatible with MC-51XX computers, please contact Moxa's technical support team.

NMEA Ports

The MC-5157-AC/DC comes with 8 NMEA ports on the rear panel. See the following figure for the NMEA pin outs.

USB Hosts

The MC-5157-AC/DC has six USB 2.0 full speed hosts that use a type A connector. The port supports keyboard and mouse, and can also be used to connect a FlashDisk for storing large amounts of data.

Audio Interface

The MC-5157-AC/DC comes with an audio input and an audio output, allowing users to connect a speaker or an earphone.

Reset Button

Press the "Reset Button" on the front panel of the MC-5157-AC/DC to reboot the system automatically. The Ready LED will blink on and off for the first 5 seconds, and then maintain a steady glow once the system has rebooted.

Real-time Clock

The MC-5157-AC/DC's real-time clock 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-5157-AC/DC

To power on the MC-5157-AC/DC, connect the "terminal block to power jack converter" to the MC-5157-DC's DC terminal block on the rear panel and then connect the power adaptor, or plug in the power cord (for the AC model). Press the Power Switch 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.