



DA-710 Quick Installation Guide

First Edition, December 2009

1. Overview

The DA-710 computer is based on the Intel x86 processor, supports VGA, and features 4 Ethernet ports, 2 RS-232 serial ports, CompactFlash, and USB. The DA-710 comes in a standard 19-inch, 4U high form factor, making it an ideal platform for industrial applications. The DA-710 comes with 4 PCI slots for inserting expansion modules. Moxa provides a variety of communication modules, including an 8-port RS-232/422/485 module, a 4-port 10/100 Mbps LAN module, an 8-port RS-422/485 module, an 8-port LAN module, and a universal PCI expansion module. This friendly modular design gives users the advantage of being able to swap out modules quickly and easily.

2. Package Checklist

Before installing the DA-710, verify that the package contains the following items:

- 1 DA-710 embedded computer
- Ethernet Cable : RJ45 to RJ45 cross-over cable, 100 cm
- Terminal Block for DI/DO
- Quick Installation Guide (printed)
- Document and Software CD or DVD
- Product Warranty Statement (printed)

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

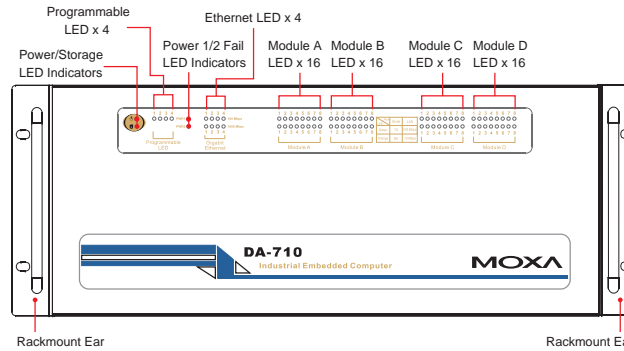
Optional Expansion Modules:

- **DA-SP08-I-DB:** 8-port RS-232/422/485 serial module with DB9 connector and digital isolation
- **DA-SP08-DB:** 8-port RS-232/422/485 serial module with DB9 connector
- **DA-SP08-I-TB:** 8-port RS-232/422/485 serial module with terminal block connector and digital isolation
- **DA-SP38-I-TB:** 8-port RS-422/485 serial module with terminal block connector and digital isolation
- **DA-SW08-RJ:** 8-port 10/100 Mbps unmanaged switch module
- **DA-LN04-RJ:** 4-port 10/100 Mbps LAN module
- **DA-UPCI-DK:** Universal PCI development kit

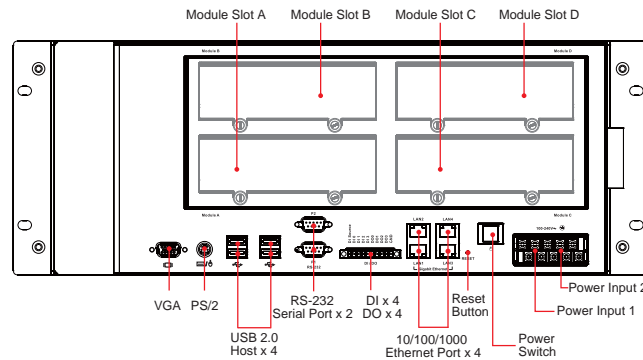
P/N: 1802007100010

3. DA-710 Panel Layout

Front View



Rear View



Note: Expansion modules can be installed in Slot A, Slot B, Slot C, or Slot D.

4. Installing the DA-710

Desktop Mounting

Place the DA-710 on a clean, flat, well-ventilated desktop. To improve ventilation, leave some space between the DA-710 and other equipment. Do not stack equipment or objects on top of the unit, as this can cause damage to the product.

Rack Mounting

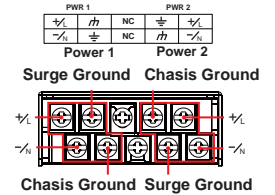
The DA-710 can be mounted on a standard 19-inch rack. Use the enclosed rack mounting kit to fasten the rackmount hangers to the rackmount supports. Then attach the rackmount ears to the DA-710. For details, refer to the hardware user's manual.

5. Connector Description

Power Connectors

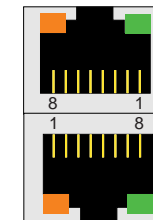
The DA-710 offers dual power inputs. Users may choose to use Power1 or Power 2 respectively, or use both. Use a screwdriver to remove the screws.

Connect the power cord to the screws, and then attach the screws to the unit. When finished, press the Power Switch to power on the computer.



Gigabit LAN Ports

The 4 10/100/1000 Mbps Ethernet ports (LAN 1, LAN 2, LAN3 and LAN4) 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)-

The default IP addresses and netmasks of the Ethernet ports are as follows:

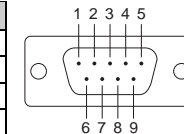
	IP Address	Netmask
LAN 1	192.168.3.127	255.255.255.0
LAN 2	192.168.4.127	255.255.255.0
LAN 3	192.168.5.127	255.255.255.0
LAN 4	192.168.6.127	255.255.255.0

Please note that DA-710-XPE model uses DHCP.

Serial Port

The 2 serial ports (P1 and P2) use DB9 connectors. The pin assignments are shown in the following table:

Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS



CompactFlash

The DA-710 has a CompactFlash slot that supports CompactFlash type I/II card expansion. Users may insert a CompactFlash card to expand the DA-710's storage capacity. Be sure to power off the computer before inserting or removing the CompactFlash card. The CompactFlash card is mounted at `/mnt/hdb`.

Reset Button

Pressing the **Reset** button initiates a hardware warm reboot. This button is comparable to a desktop PC's reset button. After pressing the reset button, the system will reboot automatically.

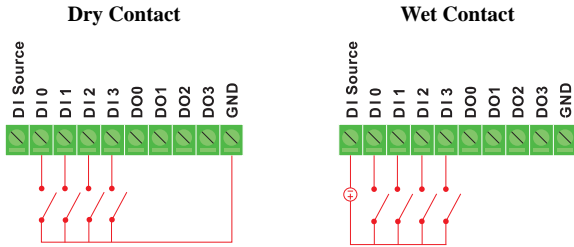
USB

There are four USB 2.0 host ports on the rear panel, which can be used for storage expansion.

DI, DO

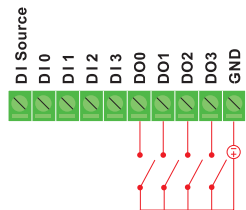
The DA-710 has 4-ch digital outputs and 4-ch digital inputs. Refer to the following figures for DI/DO pinouts and wiring.

Digital Input Wiring



Note: If you are using wet contacts, you must connect "DI Source" to power.

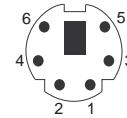
Digital Output Wiring



Keyboard and Mouse

The DA-710 offers a PS/2 mini-DIN connector that can be used to connect a PS/2 keyboard and a PS/2 mouse. (A Y-type cable is not included in the accessory package. It can be purchased separately. You may also use the USB ports to connect your USB-based keyboard and mouse.)

Pin	Signal
1	PS/2 Keyboard Data
2	PS/2 Mouse Data
3	GND
4	VCC
5	PS/2 Keyboard Clock
6	PS/2 Mouse Clock



Front Panel LED Indicators

Refer to the following table for LED indicator information.

LED	Color	Description
Power	Green	Power is on.
	Off	No power input or power error.
Storage	Orange/ Blinking	Data is being written to or read from the storage unit.
	Off	The storage unit is idle.
Gigabit LAN LEDs 1-4	Green	100 Mbps Ethernet mode.
	Orange	1000 Mbps (Gigabit) Ethernet mode.
	Off	No activity or 10 Mbps Ethernet mode.
Module A/B/C/D 1-8	Green	Serial port's Tx signal, or 100 Mbps Ethernet mode is active.
	Orange	Serial port's Rx signal, or 10 Mbps Ethernet mode is active.
	Off	No activity.
Power Fail 1-2	Red	Power input 1 or 2 has failed.
	Off	Power inputs are normal.
Programmable LEDs 1-4	Orange	Customer defined.
	Off	Customer defined.

Display

The DA-710 comes with a D-Sub 15-pin female connector to connect to a VGA monitor. Be sure to disconnect the power before you connect or disconnect the monitor cable.

6. Configuring the Ethernet Interface

Linux users should follow these steps:

If you are using the console cable for first-time configuration of the network settings, enter the following commands to edit the `interfaces` file:

```
#ifdown -a
//Disable LAN1/LAN2/LAN3/LAN4 interface first, before you
reconfigure the LAN settings. LAN 1 = eth0, LAN 2= eth1,
```

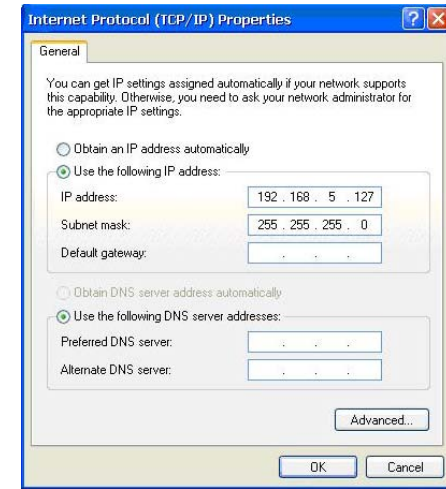
```
LAN 3= eth2, LAN 4= eth3
#vi /etc/network/interfaces
//check the LAN interface first//
```

After the boot settings of the LAN interface have been modified, use the following command to activate the LAN settings immediately:

```
#sync; ifup -a
```

Windows XP Embedded users should follow these steps:

- Step 1:** Go to **Start** → **Settings** → **Network Connections**.
- Step 2:** In the **Local Area Connection Properties** screen, click **Internet Protocol (TCP/IP)** and then select **Properties**.
- Step 3:** Click **OK** after inputting the proper IP address and netmask.



Note: Refer to the DA-710 User's Manual for additional configuration information.



Click here for online support:
www.moxa.com/support

The Americas: +1-714-528-6777 (toll-free: 1-888-669-2872)
 Europe: +49-89-3 70 03 99-0
 Asia-Pacific: +886-2-8919-1230
 China: +86-21-5258-9955 (toll-free: 800-820-5036)

© 2009 Moxa Inc. All rights reserved.
 Reproduction without permission is prohibited.