MOXA®

EXPC-1319 Series
Panel Computer
Quick Installation Guide

First Edition, July 2013

1. Overview

EXPC-1319 panel computers are fanless, durable devices made for both indoor and outdoor hazardous environments. The EXPC-1319 series features the Intel Atom dual core D525 1.8 GHz processor, with up to 4 GB of memory available to deliver high performance processing for the sorts of hazardous environments found in oil and gas fields.

2. Model Names and Package Checklist

The EXPC-1319 Series includes the following models:

- **EXPC-1319-STS-W7E:** Fanless, industrial-rugged Zone 2 19-inch 1000 nits LCD panel computer, single point touch screen, IP66, dual core Atom D525 CPU, -20 to 60°C operating temperature

- **EXPC-1319-STS-IHS-W7E:** Fanless industrial-rugged Zone 2 19-inch 1000 nits LCD panel computer, single point touch screen, IP66, dual core Atom D525 CPU, -40 to 60°C operating temperature, with Intelligent Heating Solution (IHS)

- **EXPC-1319-MTS-W7E:** Fanless industrial-rugged zone 2 19-inch 1000 nits LCD panel computer, multi point touch screen, IP66, dual core Atom D525 CPU, -20 to 60°C operating temperature (available on request)

- **EXPC-1319-MTS-IHS-W7E:** Fanless industrial-rugged Zone 2 19-inch 1000 nits LCD panel computer, multi point touch screen, IP66, dual core Atom D525 CPU, -40 to 60°C operating temperature, with Intelligent Heating Solution (IHS) (available on request)

Each basic system model is shipped with following standard items:

- 1 EXPC-1319 panel computer
- Quick Installation Guide
- Documentation & Software DVD
- Ethernet Cable: RJ45 to RJ45 cross-over cable, 100 cm
- Waterproof USB connector pack x 2
- Waterproof DB9 connector pack x 2
- Waterproof LAN connector pack x 2
- Waterproof power connector pack x 1
- Wall mounting kit
- Warranty statement

P/N: 1802013190010

3. Hardware Installation

Front and Side Views

SSD/CF Socket Cover

Control Button x 5
LED Indicator x 6

Rear and Bottom Views

Serial Port x 2 (DB9 Male)
Power Input (M12, 24 VDC)

LAN Port x 2 (Gigabit, RJ45)
USB 2.0 x 2 (Type A)
VGA Output
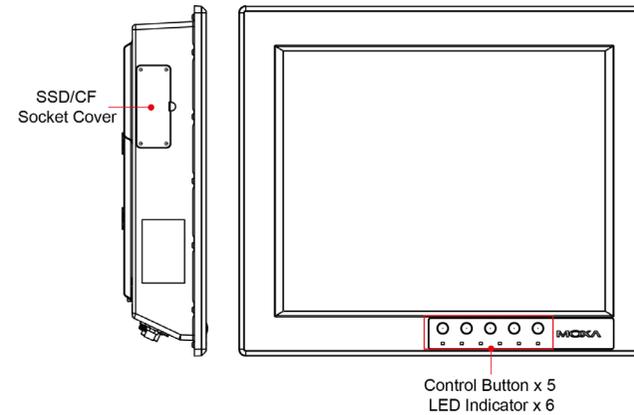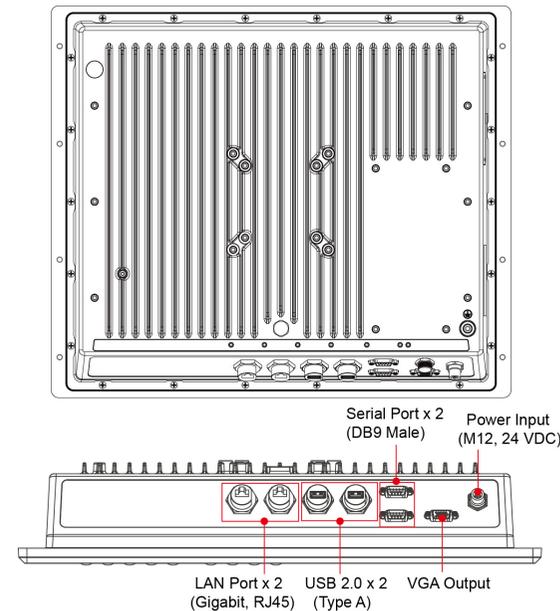
Connecting the Power

The power input connector is located on the left of the bottom panel. You need to connect the power signal wires to the M12 connector. See the following figure for the pin assignment of the M12 power connector.

When power has been connected, press Power button on the front panel to turn on the computer.

V-   N.C.
N.C.   V+
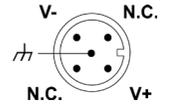
Front Panel LEDs and Buttons

There are six LED indicators and five control buttons on the front panel.

LAN1   LAN2   Fiber   Storage   Heater   Power
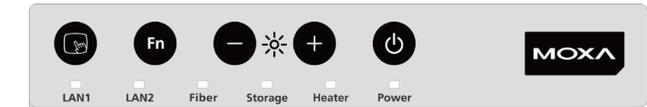
LED Indicators	Function	
Power	On	Power is on.
	Off	Power is off.
Heater (will be enabled when below -20℃)	On	Heater is working.
	Off	Heater is not working.
Storage	Blinking	Storage (CF or SSD) is accessing.
	Off	Storage (CF and SSD) is not accessing.
Fiber	Mfr. reserved	
LAN1 & LAN 2	On	Network is transmitting or receiving data.
	Off	Network is not transmitting or receiving data.

Control Buttons	Function	
⏻	**Power**	Press to turn on the computer. Press again to turn off the computer.
➖ ☀ ➕	**Brightness**	Press **+** button to increase the brightness of the panel. Press **–** button to decrease the brightness of the panel.
Fn	**Function**	Customizable function key, can be configured by an included utility. Default value enables a virtual keyboard.
👆	**Touch-screen**	Touch to enable the touchscreen function (default). Touch again to disable.

4. Connecting the Interfaces

EXPC-1319 peripheral interfaces are located on the bottom panel. All hardware interfaces ship with protective caps and tethers. To connect the interfaces, remove the protective caps and tethers. The screws on the end of the tails also need to be removed. To protect against water damage, when the connectors are not in use, please make sure the protective caps have been securely fastened.

Connecting to a Display

Your EXPC-1319 embedded computer comes with a 15 pin female D-Sub hardware interface for VGA output. Be sure to cut the system power before you connect or disconnect the monitor cable.
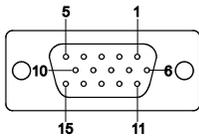
Pin No.	Signal Definition	Pin No.	Signal Definition
1	Red	9	VCC
2	Green	10	GND
3	Blue	11	NC
4	NC	12	DDC2B Data
5	GND	13	HSYNC
6	GND	14	VSYNC
7	GND	15	DDC2B Clock
8	GND		

USB Ports

The EXPC-1319 has two USB 2.0 ports on the bottom panel. Follow these steps to install the USB devices.

Step 1: Disassemble the waterproof USB connector into four parts.
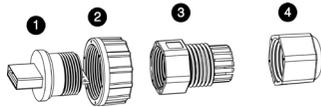
Step 2: Connect the USB signal wires with the correct pin definition. See the figure and table below.

Step 3: When finished, assemble the USB parts, and connect to the USB connector on the bottom panel of the EXPC-1319. Make sure the connector has been securely fastened to ensure the waterproof function.

Pin No.	Definition
1	VCC
2	DATA-
3	DATA+
4	Ground

Serial Ports

The EXPC-1319 comes with two RS-232/422/485 serial ports with male DB9 connectors.

Step 1: Disassemble the waterproof DB9 connector into four parts.
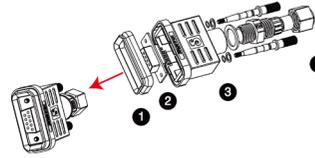
Step 2: Connect the serial signal wires with the correct pin definition. See the following figure and table.

Step 3: When finished, assemble the DB connector parts, and connect to the DB9 connector on the bottom panel of the EXPC-1319. Make sure the connector has been securely fastened to ensure the waterproof function.

Refer to the following figure and table for serial port definitions.

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	–	–	–
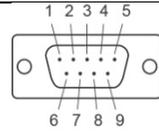
Ethernet Ports

The EXPC-1319 has two 10/100/1000 Mbps Ethernet LAN interfaces with waterproof RJ45 connectors. Follow the steps below to connect the LAN ports.

Step 1: Disassemble the hardware into four parts.
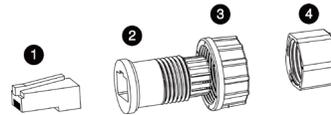
Step 2: Take care to match the correct wires and pins. See the figure and table below.
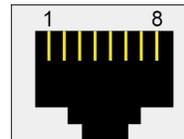
Pin	100 Mbps	1000 Mbps
1	ETx+	TRD(0)+
2	ETx-	TRD(0)-
3	ERx+	TRD(1)+
4	–	TRD(2)+
5	–	TRD(2)-
6	ERx-	TRD(1)-
7	–	TRD(3)+
8	–	TRD(3)-

Step 3: Pass the signal wires through Part 2, 3 and 4, and connect the wires to the RJ45 head. Next, securely refasten the assembly; you may now connect to the LAN interface on the bottom panel. Make sure the connector is securely fastened to ensure the assembly remains waterproof. Please note that by default the EXPC-1319 uses DHCP for network IP addressing.

5. Configuring the Ethernet Interface

Follow these steps to configure the Ethernet interface

Step 1: Go to **Start=>Control Panel=>Network and Internet=> Network Connections**.

Step 2: In the **Local Area Connection Properties** screen, click **Internet Protocol (TCP/IP)** and then select **Properties**.

Step 3: Enter the proper IP address and netmask, and click **OK.**
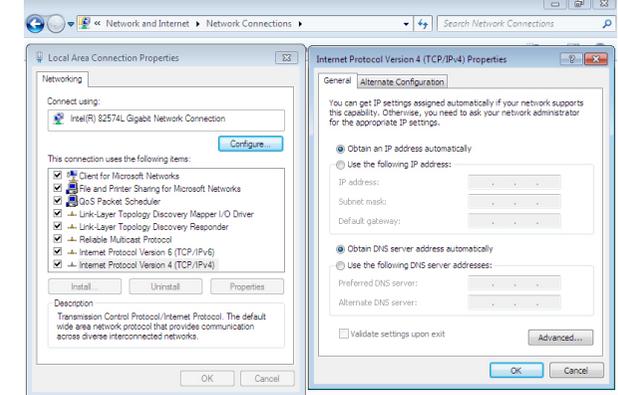
NOTE Refer to the User's Manual for additional configuration information.

www.moxa.com/support

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