

EXPC-1519 Series Quick Installation Guide

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Overview

The EXPC-1519 series Zone 2 panel computers feature advanced 3rd generation Intel® Core™ processors—i7-3555LE and Celeron 1047UE—with 4 GB of system memory expandable to 16 GB, delivering a reliable, high-performance platform of wide versatility for use in harsh oil and gas environments.

Package Checklist

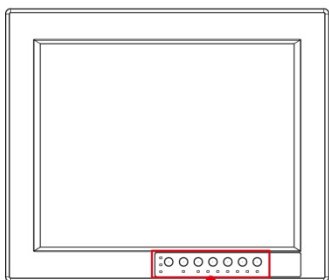
Before installing the EXPC-1519, verify that the package contains the following items for your model.

Model	Package Checklist
EXPC-1519-C1-S1-T EXPC-1519-C7-S1-T EXPC-1519-C1-S2-T EXPC-1519-C7-S2-T	<ul style="list-style-type: none">• 1 EXPC-1519 panel computer• HDD/SSD installation kit• 1 2-pin terminal block for DC power input• 1 3-pin terminal block for AC power input• Quick installation guide• Documentation & software DVD• Warranty card
EXPC-1519-C1-S3-T EXPC-1519-C7-S3-T	<ul style="list-style-type: none">• 1 EXPC-1519 panel computer• HDD/SSD installation kit• USB female connector installation kit• RJ45 female connector installation kit• DC power installation kit• AC power installation kit• Quick installation guide• Documentation & software DVD• Warranty card

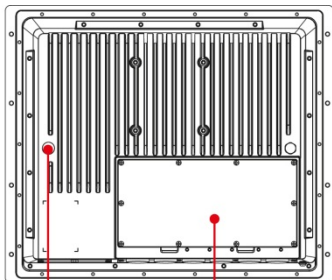
NOTE Please notify your sales representative if any of the above items are missing or damaged.

Hardware Overview

Front and Rear Views



Control button x 7
LED indicator x 10

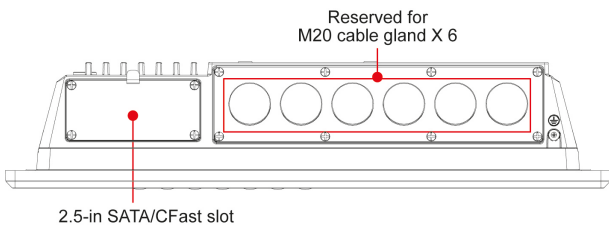


Optional Antenna port
(N type)

I/O panel
enclosure

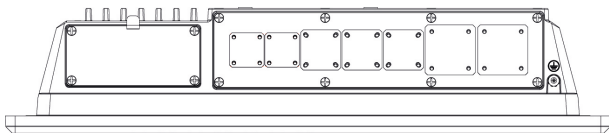
Bottom View

Applies to: EXPC-1519-C1-S1-T, EXPC-1519-C7-S1-T,
EXPC-1519-C1-S2-T, EXPC-1519-C7-S2-T

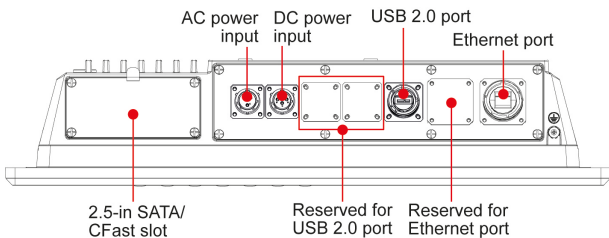


Bottom View

Applies to: EXPC-1519-C1-S3-T, EXPC-1519-C7-S3-T









The accessories provided with the product include an AC power connector, DC power connector, USB connector, and RJ45 connector. Install the items required for your own application. The following figure shows what the computer should look like after all the connectors are installed.




Control Buttons and LEDs

The following table describes the control buttons on the front panel.

Button	Name	Description
	Power	Press to power on or wake up. Press and hold for 4 seconds to power off.
	Brightness	Press to adjust the brightness level.
	Fn	Press to display function menu.
	Touch	Touch to enable the touchscreen function. Touch again to disable.
	Info	Press to display system information.
	Brightness mode	Press to switch between display modes.

The following table describes the LEDs on the front panel.

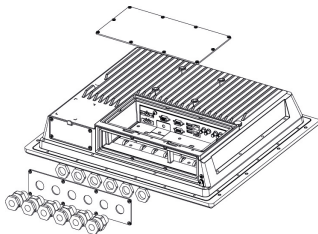
LED	Color	Description
Power	Green	Power is on and functioning normally.
	Off	Power is off.
Fiber 1/ Fiber 2	Green	Fiber port is connected.
	Off	Fiber port is not connected.
LAN 1/ LAN 2	Green	LAN port is connected.
	Off	LAN port is not connected.
Touch	Green	Panel touch mode is enabled.
	Off	Panel touch mode is disabled.
Info	Red	System error.
	Off	System is functioning properly.
 Display mode	Green	Displays the brightness mode.
	Off	Not in brightness mode range.

Hardware Connection and Installation

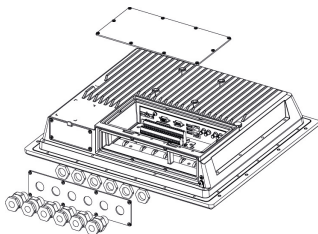
Connecting the I/O Ports

The procedure for connecting the I/O ports depends on which EXPC-1519 model you are using. To meet the IP66 standard, be sure to tighten the cable connectors.

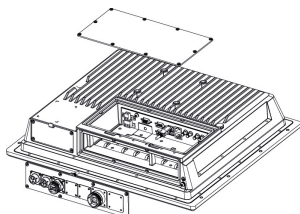
For the EXPC-1519-C1-S1-T and EXPC-1519-C7-S1-T models, remove the cover on the IO panel enclosure on the rear panel. Connect one end of the cables to the IO ports through the cable connectors on the bottom panel.



For the EXPC-1519-C1-S2-T and EXPC-1519-C7-S2-T models, remove the cover on the IO panel enclosure on the rear panel. Connect one end of the cables to the terminal blocks through the cable connectors on the bottom panel.

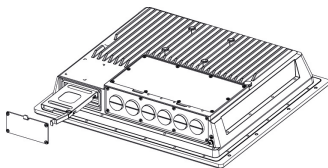


For the EXPC-1519-C1-S3-T and EXPC-1519-C7-S3-T models, remove the cover on the IO panel enclosure on the rear panel. Install AC connector, DC connector, USE connector, or RJ45 connector on the IO panel, and then connect and secure the cables to the connectors on the bottom panel.



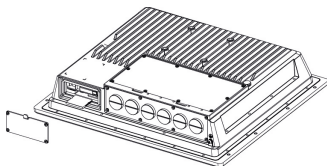
Installing the SATA Storage Drive

1. Use the screws provided to secure a 2.5-inch SATA storage drive in the storage drive bracket.
2. Loosen the screws to remove the slot cover on the bottom panel.
3. Install the bracket with the storage drive into the slot.
4. Replace the slot cover.



Installing a CFast Card

Remove the slot cover on the bottom panel and push a CFast card into the slot, and then replace the slot cover.

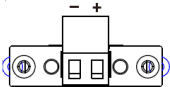
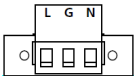
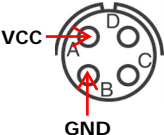
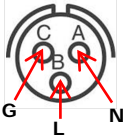


Grounding the EXPC-1519 Series

Proper grounding and wire routing help 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 source.

Pin Assignments

Power Ports

Model	Power connector pin assignment	
EXPC-1519-C1-S1-T EXPC-1519-C7-S1-T EXPC-1519-C1-S2-T EXPC-1519-C7-S2-T	DC Power (DC 24 V) 	AC Power (AC 110-240 V) 
EXPC-1519-C1-S3-T EXPC-1519-C7-S3-T	AC Power 	DC Power 

AC/DC Power Connector Assembly

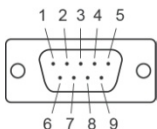
For models EXPC-1519-C1-S3-T and EXPC-1519-C7-S3-T, you will need to assemble the power cable yourself:

1. Use a suitable cable with diameter smaller than 10 mm.
2. Solder the cable to the appropriate pin, based on the AC and DC pin assignments shown in the above table.
3. Assemble the cable and connector kit in together, as illustrated in the following figure.



Serial Ports

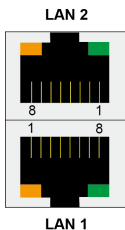
The EXPC-1519 series features two software-selectable RS-232/422/485 serial ports, using a DB9 connector.



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 following table shows the pin assignments for the Fast Ethernet 100/1000 Mbps RJ45 ports.

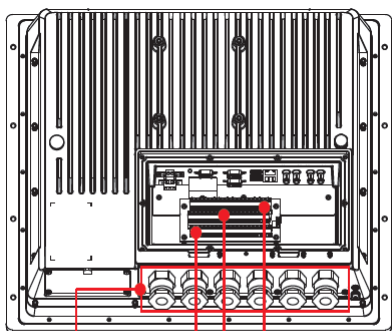


Pin	100 Mbps	1000 Mbps
1	ETx+	TRD(0)+
2	ETx-	TRD(0)-
3	ERx+	TRD(1)+
4	-	TRD(2)+
5	-	TRD(2)-
6	ERx-	TRD(1)-
7	-	TRD(3)+
8	-	TRD(3)-

Refer to the following table for LAN LED indicator descriptions.

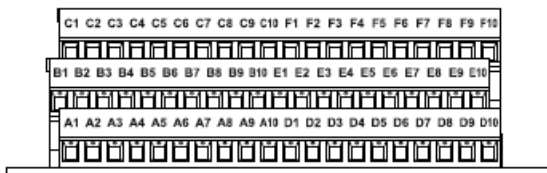
LAN (on connectors)	Green	100 Mbps Ethernet mode
	Yellow	1000 Mbps (Gigabit) Ethernet mode
	Off	No activity / 10 Mbps Ethernet mode

EXPC-1519-C1-S2-T / EXPC-1519-C7-S2-T Terminal Block



Optional M20 Cable Glands
Serial Port x 2
Ethernet Port x 2
USB 2.0 x 4

For the EXPC-1519-C1-S2-T and EXPC-1519-C7-S2-T SKU, all data input and output goes through terminal block. Refer to the pin assignment table below for details.



Function	Pin Definition									
USB1/ USB2	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
	GND	VCC	USB1- DATA-	USB1- DATA+	USB2- DATA-	USB2- DATA+	N/A	N/A	N/A	N/A
USB3/ USB4	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
	GND	VCC	USB3- DATA-	USB3- DATA+	USB4- DATA-	USB4- DATA+	-	-	-	-
LAN1	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
	N/A	N/A	LAN1_ MDIN0	LAN1_ MDIP0	LAN1_ MDIN1	LAN1_ MDIP1	LAN1_ MDIN2	LAN1_ MDIP2	LAN1_ MDIN3	LAN1_ MDIP3
LAN2	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
	N/A	N/A	LAN2_ MDIN0	LAN2_ MDIP0	LAN2_ MDIN1	LAN2_ MDIP1	LAN2_ MDIN2	LAN2_ MDIP2	LAN2_ MDIN3	LAN2_ MDIP3
Serial port 1	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
RS-232	GND	N/A	P1_DTR	N/A	P1_TXD	P1_CTS	P1_RXD	P1_RTS	P1_DCD	P1_DSR
RS-422	GND	N/A	P1_ RxDA(-)	N/A	P1_ RxDB(+)	N/A	P1_ TxDB(+)	N/A	P1_ TxDA(-)	N/A
RS-485 (4-wire)	GND	N/A	P1_ RxDA(-)	N/A	P1_ RxDB(+)	N/A	P1_ TxDB(+)	N/A	P1_ TxDA(-)	N/A
RS-485 (2-wire)	GND	N/A	P1_ DataA(-)	N/A	P1_ DataB(+)	N/A	N/A	N/A	N/A	N/A

Serial port 2	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
RS-232	GND	N/A	P2_DTR	N/A	P2_TXD	P2_CTS	P2_RXD	P2_RTS	P2_DCD	P2_DSR
RS-422	GND	N/A	P2_ RxDA(-)	N/A	P2_ RxDB(+)	N/A	P2_ TxDB(+)	N/A	P2_ TxDA(-)	N/A
RS-485 (4-wire)	GND	N/A	P2_ RxDA(-)	N/A	P2_ RxDB(+)	N/A	P2_ TxDB(+)	N/A	P2_ TxDA(-)	N/A
RS-485 (2-wire)	GND	N/A	P2_ DataA(-)	N/A	P2_ DataB(+)	N/A	N/A	N/A	N/A	N/A

Powering on the EXPC-1519

To turn on the EXPC-1519, connect the EXPC-1519 to an AC or DC power source and press the **Power** button on the front panel. It takes about 30 seconds for the system to boot up. Once the system is ready, the **Power** LED turns on.

To power off the EXPC-1519 series, we recommend using the power off procedure for the OS you are using. If the system does not power off properly, you can press the **Power** button for about 4 seconds to force the power to turn off.

Real Time Clock

The EXPC-1519'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 clock's lithium battery is replaced with an incompatible battery.