

# EXPC-1519 Series

*Zone 2 19-inch panel computers with multiple connectivity options*



- > Anti-scratch, 19-inch sunlight viewable, 1000-nit LCD panel
- > High performance Intel® processor, Core™ i7-3555LE or Celeron 1047UE CPU
- > Fanless design with highly efficient heat dissipation in 70°C environment
- > Booting up within 3 minutes without heater in -40°C
- > Multi-touch with glove-friendly touch screen interface
- > Cable gland and standard USB Type-A/RJ45 connector design
- > 4 LAN ports with independent MACs; 2 RJ45 and 2 fiber ST
- > Totally sealed IP66 / NEMA 4X enclosure
- > Class 1 Division 2, ATEX Zone 2, and IECEx certified
- > Dual AC/DC power supply
- > Optional WLAN and TPM module by request



## Introduction

The EXPC-1519 panel computers are designed for Zone 2 applications in hazardous environments, both indoors and outdoors. The EXPC-1519 series features Intel® 3rd generation Core™ i7-3555LE 2.5 GHz or Celeron 1047UE 1.4 GHz processor, with up to 16 GB of memory to deliver high performance processing.

The EXPC-1519 series offers flexible interface connectivity options to meet your application needs: standard connectors with cable glands, terminal block with cable glands, and standard connectors on the bottom panel.

The EXPC-1519 computers are designed with wide temperature range (-40 to 70°C) and come with a patented, fanless, streamlined enclosure designed for highly efficient heat dissipation, making this one of the most reliable industrial platforms available for harsh, hot outdoor environments like oil and gas fields, or drilling platforms.

In addition, the EXPC-1519 computers feature touchscreen controls with anti-reflection treatment and 1000-nit LED backlight, making them easy to read even during the peak daylight hours.

## Specifications

### Computer

**CPU:** Intel® Core™ i7-3555LE 2.5 GHz or Intel® Celeron® 1047UE 1.4 GHz processor

**OS:** Windows Embedded Standard 7 32/64-bit, Windows 7 Professional 32/64-bit

**System Chipset:** Intel® QM77 Express Chipset (Intel® BD82QM77 PCH)

**System Memory:** 2 SO-DIMM slot, DDR3/DDR3L support, 4 GB pre-installed, maximum 16 GB capacity

**Expansion Bus:** 1 mini PCIe socket

**BIOS:** 64 Mbit SPI Flash

**Graphics Controller:** Intel® HD Graphics 4000

**Touchscreen:** Projected capacitive touch, 7H surface hardness, anti-reflection treatment, glove-friendly

### Storage

**HDD Support:** 2.5-inch SATA, 7 or 9.5 mm in height, access externally

**CFast:** Push-push type, access externally

### Display

**Panel Size:** 19-inch SXGA, 1000-nit LED backlit LCD

**Aspect Ratio:** 5:4

**Response Time:** 5 ms

**Contrast Ratio:** 1000:1

**Viewing Angles:**

• Horizontal: 170° (left to right)

• Vertical: 160° (up to down)

**Resolution:**

• VGA: 640 x 480

• SVGA: 800 x 600

• XGA: 1024 x 768

• SXGA: 1280 x 1024

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8

**Stop Bits:** 1, 1.5, 2

**Parity:** None, Even, Odd, Space, Mark

**Flow Control:** RTS/CTS, XON/XOFF

**Baudrate:** 50 bps to 115.2 Kbps

### Serial Signals

**RS-232:** TxD, RxD, DTR, DSR, RTS, CTS, DCD, GND

**RS-422:** TxD+, TxD-, RxD+, RxD-, GND

**RS-485-4w:** TxD+, TxD-, RxD+, RxD-, GND

**RS-485-2w:** Data+, Data-, GND

### Interface (EXPC-1519-C1-S1/EXPC-1519-C7-S1)

**Connector type:** On motherboard via cable glands

**USB:** USB 2.0 hosts x 3, type-A connectors

**VGA:** 15-pin D-Sub connector (DB15 female), with resolution up to 2048 x 1536 pixels with 32-bit color at 75 Hz

**Serial Port:** RS-232/422/485 ports (DB9 male) x 2, software-selectable

**Ethernet:** Auto-sensing 10/100/1000 Mbps ports (RJ45) x 2

**Optical Fiber:** Multimode 100M fiber optic ports x 2

**AC:** 100 to 240 VAC (3-pin terminal block)

**DC:** 24 VDC (2-pin terminal block)

### Interface (EXPC-1519-C1-S2/EXPC-1519-C7-S2)

**Connector Type:** On terminal block via cable glands

**USB:** USB 2.0 hosts x 4, terminal block

**Serial Port:** RS-232/422/485 ports (terminal block) x 2, software-selectable

**Ethernet:** Auto-sensing 10/100/1000 Mbps ports (terminal block) x 2

**Optical Fiber:** Multimode 100M fiber optic ports x 2

**AC:** 100 to 240 VAC (3-pin terminal block)

**DC:** 24 VDC (2-pin terminal block)

### Interface (EXPC-1519-C1-S3/EXPC-1519-C7-S3)

**Connector Type:** On bottom panel

**USB:** USB 2.0 hosts x 1, type-A connector

**Ethernet:** Auto-sensing 10/100/1000 Mbps port (RJ45) x 1

**AC:** 100 to 240 VAC (3-pin terminal block)

**DC:** 24 VDC (2-pin terminal block)

### LEDs and Buttons

**System LEDs:** Power, Fiber1, Fiber2, LAN1, LAN2, Touch, Info, DAY, Dusk, Night

**LAN LEDs:** 100M/Link, 1000M/Link (on each RJ45 connector)

**Buttons:** Power, Brightness +/-, Fn, Touch, Info, Brightness mode

### Physical Characteristics

**Housing:** Aluminum

**Weight:** 10.7 kg (23.78 lb)

**Dimensions:** 483 x 408 x 99.5 mm (19.02 x 16.06 x 3.92 in)

**Mounting:** VESA (100 x 100 mm), desktop, yoke, wall, panel

### Environmental Limits

**Operating Temperature:** -40 to 70°C (-40 to 158°F)

**Storage Temperature:** -40 to 70°C (-40 to 158°F)

**Ambient Relative Humidity:** 5 to 95% (non-condensing)

**Anti-vibration:** 2 Grms, 5-500 Hz frequency, compliant with IEC 60068-2-6 standard

**Anti-shock:** 20 Grms, half sine wave under system operating, 11 ms duration, compliant with IEC 60068-2-27 standard

### Power Requirements

**Input Voltage:** 100 to 240 VAC or 24 VDC (18 to 32 VDC, 2-pin terminal block)

**Power Consumption:** 100 to 240 VAC, 47 to 63 Hz, 1 A (less than 100 W) or 24 VDC, 6 A (less than 150 W)

### Standards and Certifications

**Safety:** UL 60950-1, IEC 60950-1

**Hazardous Environments:** Class 1 Division 2, ATEX Zone 2, IECEx

**EMC:** EN 55022/24

**EMI:** CISPR 22, FCC Part 15B Class A

**EMS:**

IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV

IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m

IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV

IEC 61000-4-5 Surge:

AC Power: 2 kV; Signal: 1 kV;

DC Power: 1 kV; Signal: 1 kV

IEC 61000-4-6 CS: 3 V

IEC 61000-4-8, IEC 61000-4-11

**Ingress Protection Rating:** IP66 / NEMA 4X

**Green Product:** RoHS, cRoHS, WEEE

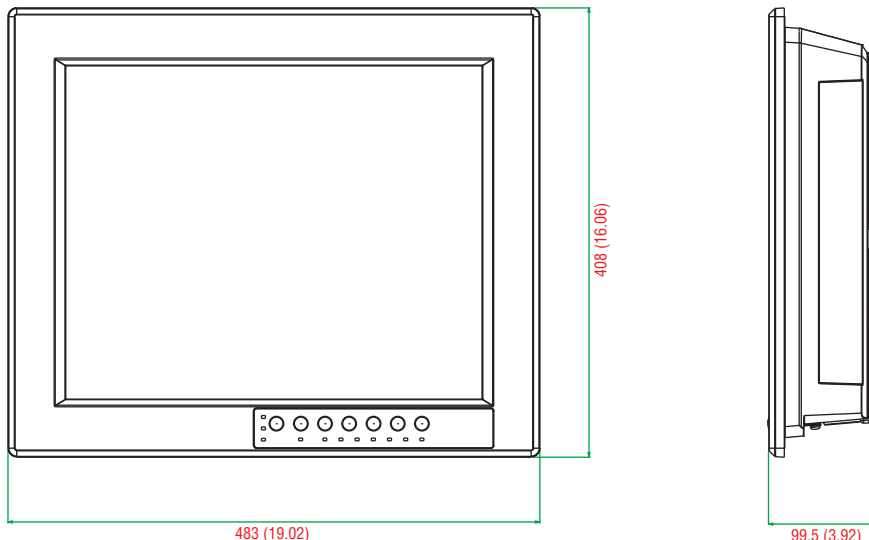
### Warranty

**Warranty Period:** 3 years for computer system, 1 year for LCD panel

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

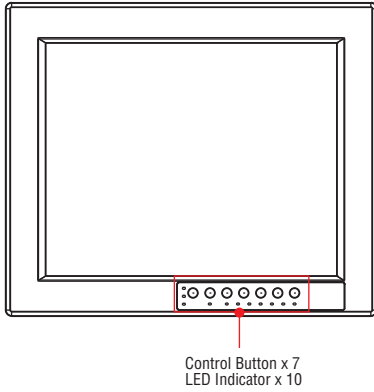
### Dimensions

Unit: mm (inch)

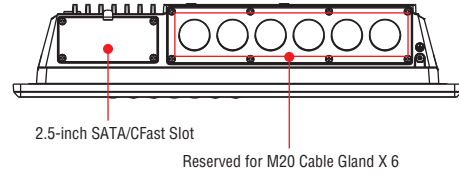


**Appearance**

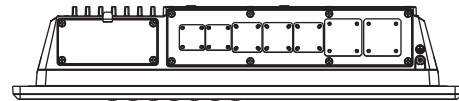
**Front View**



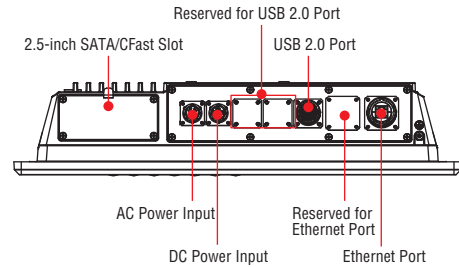
**Bottom View** (EXPC-1519-C1-S1-T, EXPC-1519-C7-S1-T, EXPC-1519-C1-S2-T, EXPC-1519-C7-S2-T)



**Bottom View** (EXPC-1519-C1-S3-T, EXPC-1519-C7-S3-T)



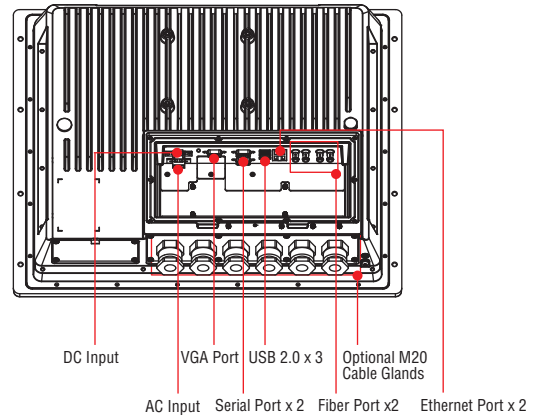
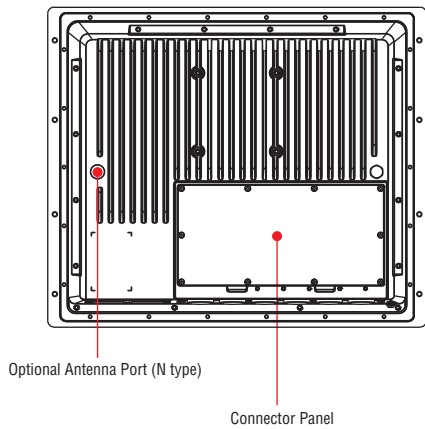
**Out-of-the-box view; connectors must be installed by the user**



**View with connectors installed**

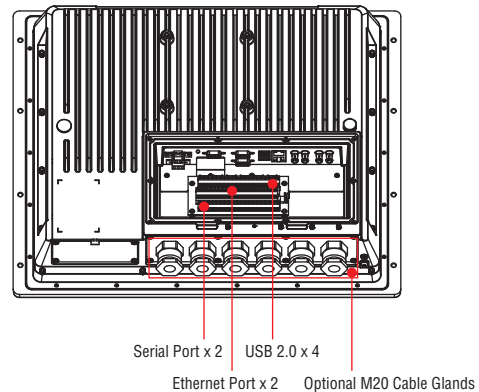
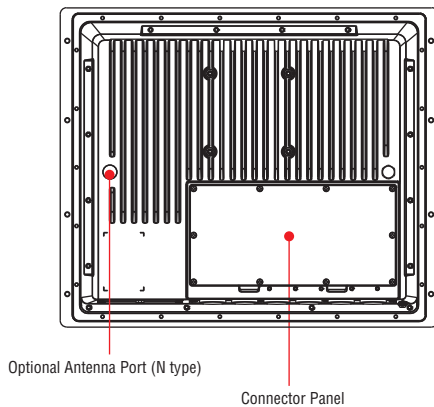
**Rear View** (EXPC-1519-C1-S1-T, EXPC-1519-C7-S1-T)

\*Viewed at a 5-degree angle



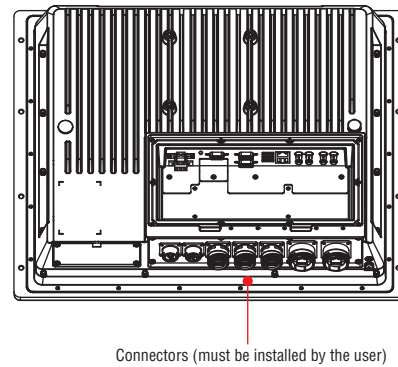
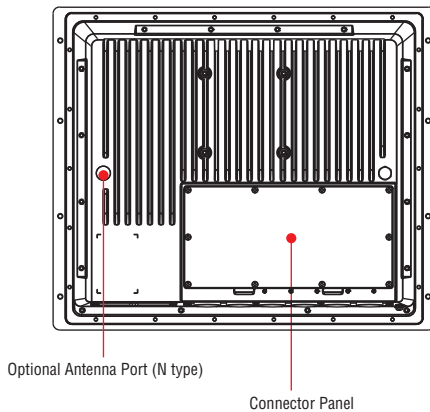
**Rear View** (EXPC-1519-C1-S2-T, EXPC-1519-C7-S2-T)

\*Viewed at a 5-degree angle



**Rear View** (EXPC-1519-C1-S3-T, EXPC-1519-C7-S3-T)

\*Viewed at a 5-degree angle



**Ordering Information**

**Available Models**

**EXPC-1519-C1-S1-T:** Fanless, Zone 2 19-inch 1000-nit LCD panel computer, Intel® Celeron® Processor 1047UE 1.4 GHz, cable gland with standard I/O design, projected capacitive touch screen, IP66, -40 to 70°C operating temperature, 2.5-inch SSD tray and CFast slot

**EXPC-1519-C1-S2-T:** Fanless, Zone 2 19-inch 1000-nit LCD panel computer, Intel® Celeron® Processor 1047UE 1.4 GHz, cable gland with terminal block I/O design, projected capacitive touch screen, IP66, -40 to 70°C operating temperature, 2.5-inch SSD tray and CFast slot

**EXPC-1519-C1-S3-T:** Fanless, Zone 2 19-inch 1000-nit LCD panel computer, Intel® Celeron® Processor 1047UE 1.4 GHz, harsh environment I/O connector, projected capacitive touch screen, IP66, -40 to 70°C operating temperature, 2.5-inch SSD tray and CFast slot

**EXPC-1519-C7-S1-T:** Fanless, Zone 2 19-inch 1000-nit LCD panel computer, Intel® Core™ i7-3555LE Processor 2.5 GHz, cable gland with standard I/O design, projected capacitive touch screen, IP66, -40 to 70°C operating temperature, 2.5-inch SSD tray and CFast slot

**EXPC-1519-C7-S2-T:** Fanless, Zone 2 19-inch 1000-nit LCD panel computer, Intel® Core™ i7-3555LE Processor 2.5 GHz, cable gland with terminal block I/O design, projected capacitive touch screen, IP66, -40 to 70°C operating temperature, 2.5-inch SSD tray and CFast slot

**EXPC-1519-C7-S3-T:** Fanless, Zone 2 19-inch 1000-nit LCD panel computer, Intel® Core™ i7-3555LE Processor 2.5 GHz, harsh environment I/O connector, projected capacitive touch screen, IP66, -40 to 70°C operating temperature, 2.5-inch SSD tray and CFast slot

**Package Checklist** (EXPC-1519-C1-S1-T, EXPC-1519-C7-S1-T, EXPC-1519-C1-S2-T, EXPC-1519-C7-S2-T)

- 1 EXPC-1519 panel computer
- 1 SSD/HDD installation kit
- 2 cable gland connectors
- 1 2-pin terminal block for DC power input
- 1 3-pin terminal block for AC power input
- Quick installation guide
- Documentation and software DVD
- Warranty card

**Package Checklist** (EXPC-1519-C1-S3-T, EXPC-1519-C7-S3-T)

- 1 EXPC-1519 panel computer
- 1 HDD/SSD installation kit
- 1 USB female connector installation kit
- 1 RJ45 female connector installation kit
- 1 DC power installation kit
- 1 AC power installation kit
- Quick installation guide
- Documentation and software DVD
- Warranty card