



INDUSTRIAL TOUCH SCREEN COMPUTER

VIO-312-PC600-MTL

12.1" XGA IP65 Industrial Touchscreen Computer with Intel® Core™ Ultra Series Processor, 1x DP, 3x USB, 2x LAN, 4x COM



Features

- 12.1" TFT XGA 4:3 LCD with resistive 5-wire / projected capacitive touch
- Intel® Core™ Ultra Series Processor Meteor Lake-U
- 1x DDR5 5600 MT/s SODIMM. max up to 48GB
- 1x 2.5" Hot-Swappable SATA SSD, 1x M.2 M-Key NVMe
- 2x RJ45 LAN, 1x DisplayPort, 1x HDMI
- 2x USB 3.2, 1x USB-C 3.2 Gen 2, 1x USB 2.0
- 8x DI + 8x DO, 4x RS-232/422/485
- 9 to 48VDC wide range power input
- 0°C to 50°C operating temperature
- IP65 compliant front panel

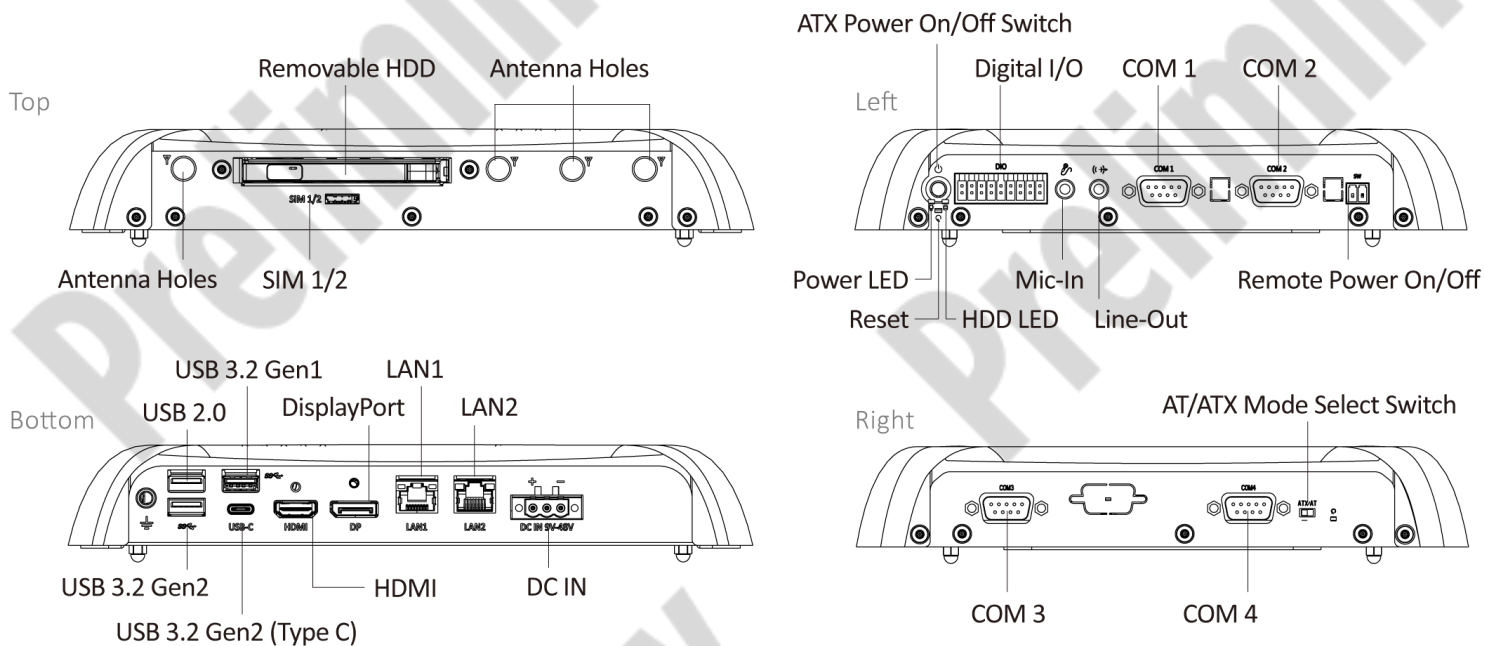


Specifications

Display	
IP Rating	IP65
LCD Size	12.1" (4:3)
Max. Resolution	1024 x 768 (XGA)
Brightness (cd/m ²)	600 / 1000 (Optional)
Contrast Ratio	1000:1
LCD Color	16.2M
Pixel Pitch (mm)	0.24(H) x 0.24(V)
Viewing Angle	178/178
Backlight Lifetime	50,000 hrs (LED Backlight)
Touch	
Touch Type	Projective Capacitive Resistive 5-Wire (optional)
Surface Hardness	7H / IK07
System	
Processor	
Intel® Core™ Ultra 5 Processor 125U 12M Cache, up to 4.30 GHz	
Intel® Core™ Ultra 7 Processor 155U 12M Cache, up to 4.80 GHz	
System Chipset	SoC Integrated
LAN Chipset	GbE1: Intel® i226 IT (Support Wake-on-LAN and PXE) GbE2: Intel® i226 IT (Support Wake-on-LAN and PXE)
Audio Codec	Realtek ALC888S
System Memory	1x DDR5 5600 MT/s SODIMM. Max. up to 48GB
BIOS	AMI 64Mbit SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0
Storage	
SIM Socket	1x Dual Nano SIM socket
SSD/HDD	1x Hotswap 2.5" SATA HDD Bay, 1x M.2 M-key 2280 NVMe
Expansion	
M.2	2x M.2 B-Key PCIe x2, USB 3.0 2242/3042/3052 1x M.2 E-Key PCIe x1, USB 2.0 2230
PCIe	1x PCIe x4 Slot (Gen 3, 4-Lane; 1E Model Only)
I/O	
Audio	1x Mic-in, 1x Line-out
CAN	2x CAN 2.0 A/B 2-pin Header (Internal)
COM	4x RS-232/422/485 2x RS-232/422/485 (internal)
DIO	8 in / 8 out (Isolated)
LAN	2x RJ45
USB	1x USB 3.2 Gen2 (Type C) 1x USB 3.2 Gen2 (10 Gbps) 1x USB 3.2 Gen1 (5 Gbps) 1x USB 2.0
DP	1x DisplayPort 1.2 (4096 x 2160@60Hz)
HDMI	1x HDMI 2.0b (4096 x 2160@60Hz)
LVDS	1x Dual Channel 24 bit LVDS
Others	4x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch, 1x Remote Power On/Off
Others Features	Others Features
OSD	LCD On/Off, Auto, Menu, Up and Down Multi-language
Speaker	2x 2w 8ohm
Operating System	
Windows	Windows 10, Windows 11
Linux	Ubuntu 22.04

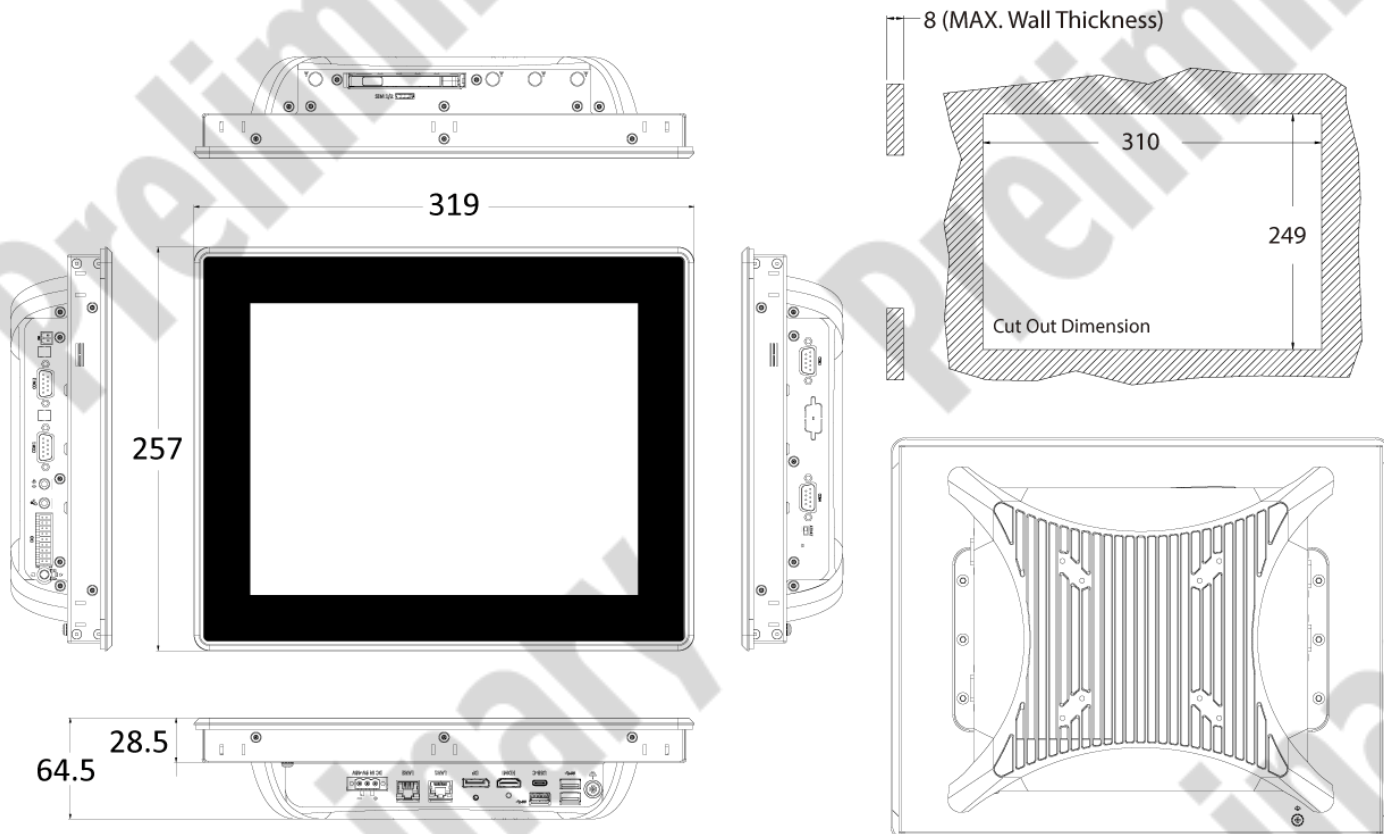
Power	
Power Adapter	Optional AC/DC 20V/7.5A, 150W
Power Mode	AT, ATX
Power Supply Voltage	9~48 VDC
Power Connector	3-Pin Terminal Block
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection
Environment	
Operating Temperature	0 °C to 50 °C
Storage Temperature	-20 °C to 70°C
Relative Humidity	10%~95% (non-condensing)
IP Level	IP 65 Compliant Front Panel
Certification	CE, FCC Class A
Vibration	With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis
Shock	20G, half sine, 11ms
Physical	
Dimensions	VIO-312-PC600-MTL: 319 (W) x 257 (D) x 64.5 (H) mm VIO-312-PC600-MTL-1E: 319 (W) x 257 (D) x 86.5 (H) mm
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting	VESA Mounting Holes 75 x 75mm, 100 x 100mm

External I/O Mechanical Layout

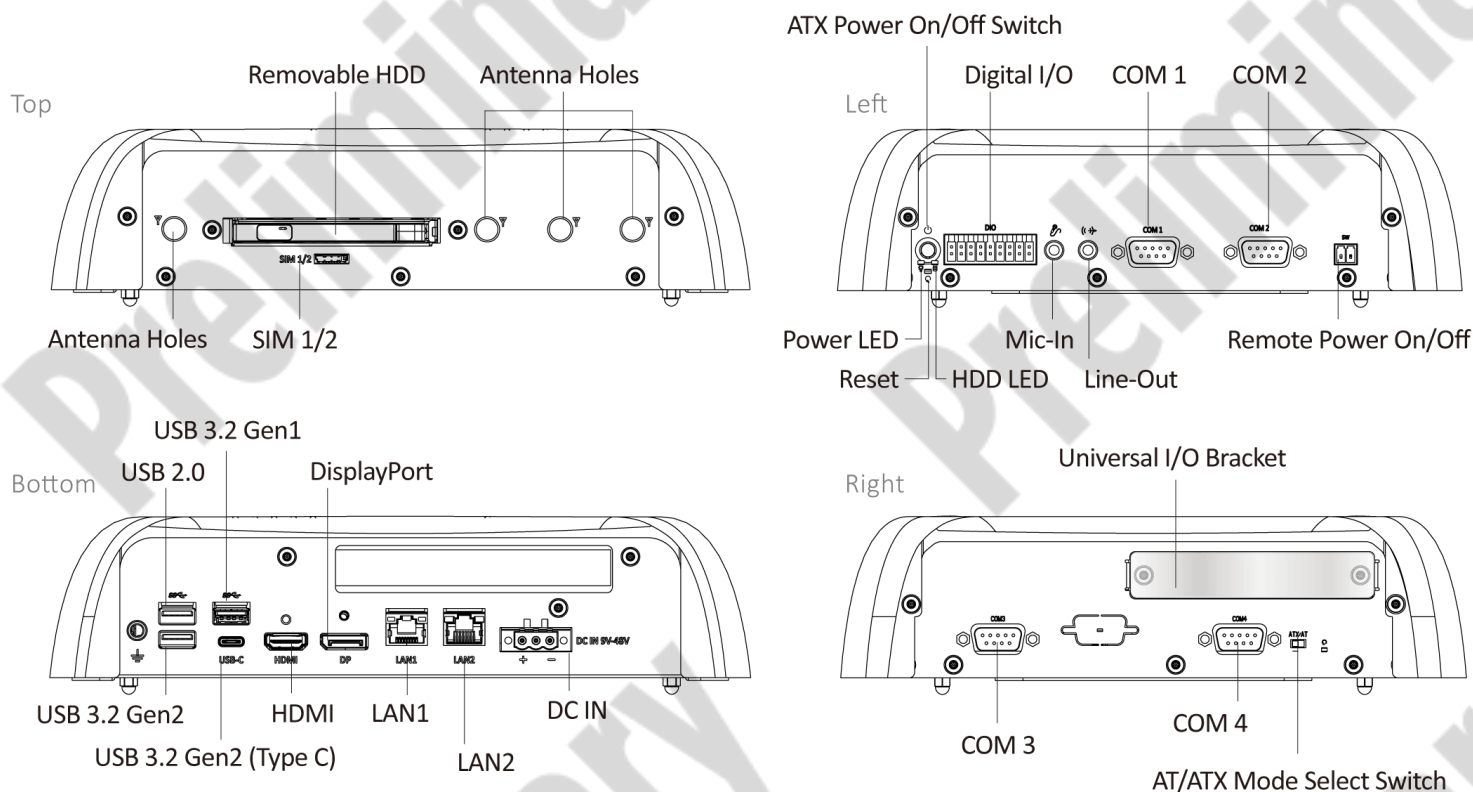


Dimension

Unit: mm

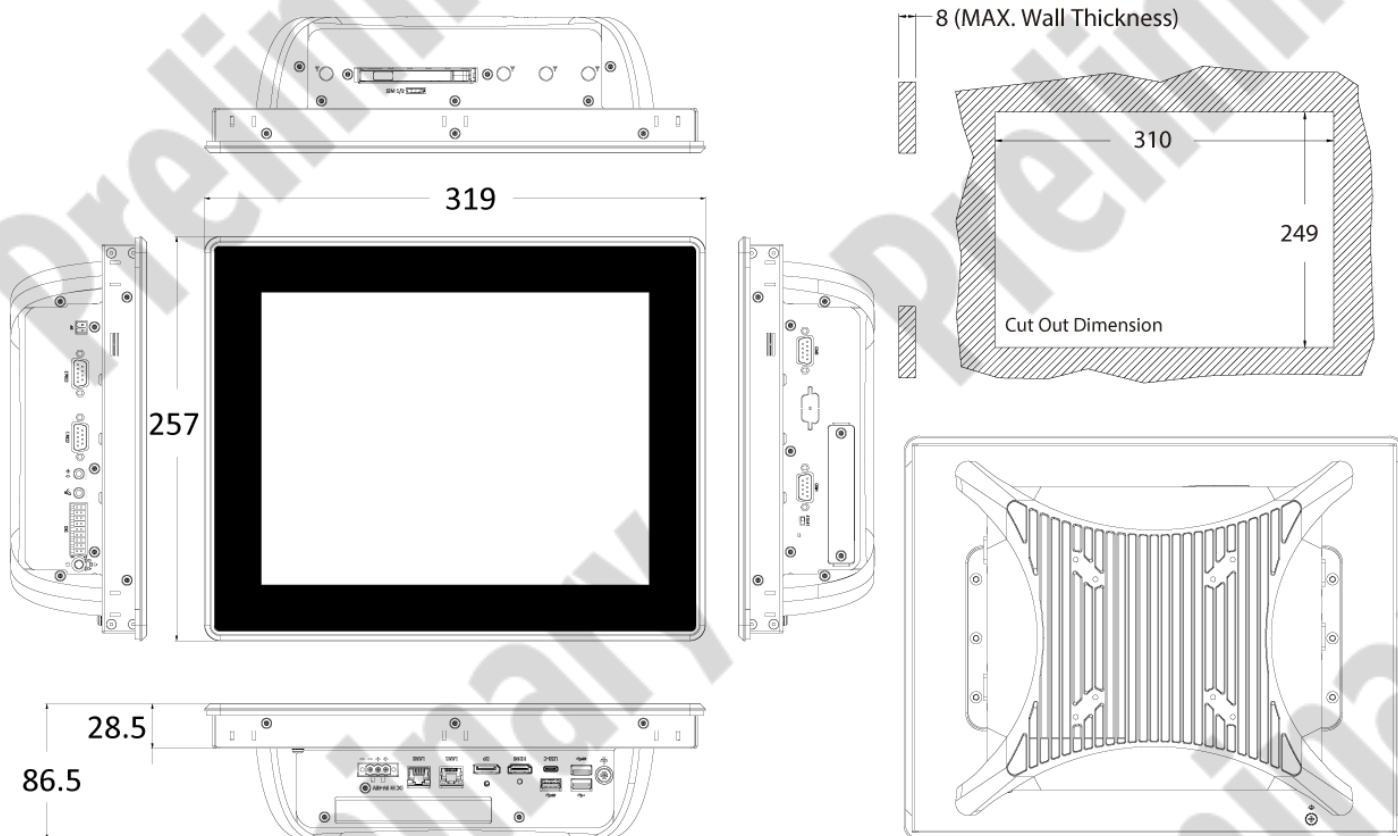


External I/O Mechanical Layout



Dimension

Unit: mm



Compliances and Standards

Shock	20G, half sine, 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810H Method 516.8 Procedure I
Vibration	With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis IEC60068-2-64:2008 Designed to comply with MIL-STD-810H Method 514.8 Procedure I
Operating Temperature	0 °C to 50 °C IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMI	<ul style="list-style-type: none"> FCC Class A (47 CFR part 15.109 and part 15.107) CE ICES-003 UKCA

Available Models

Model No.	Description
VIO-312-PC600-MTL	12.1" XGA IP65 Industrial Touchscreen Computer with Intel® Core™ Ultra Series Processor, 1x DP, 3x USB, 2x LAN, 4x COM
VIO-312-PC600-MTL-1E	12.1" XGA IP65 Industrial Touchscreen Computer with Intel® Core™ Ultra Series Processor, 1x DP, 3x USB, 2x LAN, 4x COM, 1x Universal I/O Bracket

Optional Accessories

Model No.	Description
1-E09A15002	AC-DC Power Adapter with 3P Terminal Block Plug 5.0mm_20Vdc_7.5A_150W
1-TPCD00008	Power Cord 3Pin 1830mm C5 US Type
1-TPCD00009	Power Cord 3Pin 1830mm C5 EU Type
1-TPCD00011	Power Cord 3Pin 1830mm C5 UK Type

Packing List

- 1x VIO-312-PC600-MTL / 1x VIO-312-PC600-MTL-1E
- 1x Screw Pack

US Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
Schedule B	84.71

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