

PPC-EXP220W1

Explosion Proof Panel PC



Features

- C1D2, C2D2, ATEX Zone 2, IECEx & EMC Class B Certified
- Intel® 6th Gen. Core i5 Processor
- 21.5" Fanless Panel PC for Wide Temp -20~60°C Environments
- LAN USB COM M16 (EX Ec) I.O. Up to 4 & Waterproof M12 USB COM (EX ic) I.S. Output
- Connector Panel for Easy Cable Installation
- Totally Sealed IP66 / NEMA 4X Enclosure
- 100% Water/Dust Proof Guarantee

Specification

Product		PPC-EXP220W1		
Main System	CPU	FCBGA1356 6th generation Intel® Core i5 processor (15W max.)		
	Graphic	Intel® integrated HD Graphics 520		
	Memory	Two 2133 MHz DDR4 SODIMM socket support dual Channel, non-ECC, up to 32GB		
	OS Support (Optional)	Win10 Embedded 64-bit / Windows 10 Professional 64-bit		
Display	Size	21.5" 16:9		
	Resolution (pixel)	1920 x 1080 (FHD)		
	Number of Colors	16.7M colors (RGB 6-bit + Hi FRC)		
	View Angle (H/V)	178(H) / 178(V)		
	Brightness(cd/m², nit)	250 nits		
	Contrast Ratio	5000 : 1 (Typ)		
Touch Panel	Type	Full flat resistive touch panel		
	Light Transmission	80 ± 5%		
	Hardness / Lifetime	4H / 490,000 hours		
Storage & Expansion	Storage	2.5" SATA SSD		
	Expansion	Mini PCIe x 1 M.2 Type E x 1		
I/O Ports/ Power	Configuration	A	B/C*	D
	Swappable M12, 8pin (I.S. Output, Support EX ic, Extension Cable to Ex ic Devices)	COM X 2 for RS232	USB2.0 X 1 COM X 1 for RS232	USB2.0 X 2
	Cable Gland M16 (Max. Output x 4, Must be Installed by User)	USB 2.0 X 2 (EX ec) LAN X 2 (EX ec, i219LM for Vpro) COM X 1 for RS232/422/485 (EX ec) Optional Mini-PCIe Module for Cable Connection X 1 (EX ec)		
	Power Adapter	100W with 24V DC output, with 1.2M cable, PSE		
	Power / Consumption	DC 24V Input, M16 (EX ec, Must Be Installed by User) / 54.2 Watts		
Environmental	Temperature	Operating Temperature -20 ~ 60 ℃, without freezing (IEC60068-2-56, air flow cooling) Storage Temperature -20 ~ 60℃		
	Humidity	Operating & Storage: -10 ~ 90%, non-condensing		
	Water/Dust resistance	IP66 / NEMA4X		
Mechanical Characteristics	Housing	Stainless steel (SUS304), Chassis Type		
	Dimensions (Net: mm)	557 x 348.5 x 84.5		
	Weights (Net: kg)	13 kg		
	Mounting	VESA (100x100 mm x mm), side mount (M6*2)		
Certification	EMC: FCC, CE (EMC), VCCI Class B, Canada ICES-003, Safety: IEC-62368 CCC, IECEx, C2D2 Group F, G; C1D2 Group A, B, C, D T4 ATEX Zone2 EX II 3G Ex ic ec IIC T4 Gc IP66			

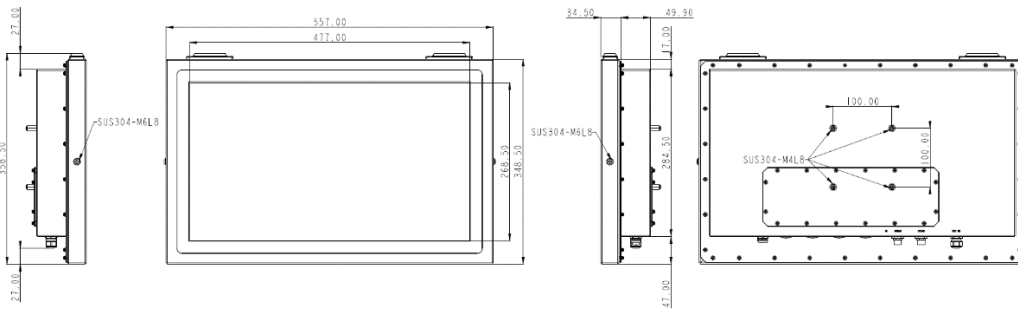
*Remark: Configuration B/C is defined/verified as different interface combination connected in certificate report.



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Dimensions

Units (mm)



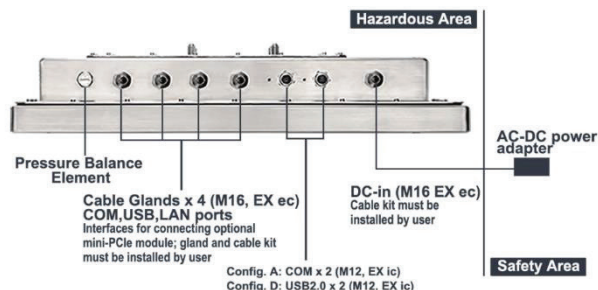
Major Options

Options	① Wifi · IEEE802.11ac/b/g/n, Bluetooth Class1.0 · 2.0 (included in explosion proof certification, not co-existed with other mini-PCIe module)
Accessory	① COM extension cable kit through M16 cable gland (2 meter length, external 9pin male type) (cable kit must be installed by user) ② USB2.0 extension cable through M16 cable gland (2 meter length, external female type A) (cable kit must be installed by user) ③ LAN extension cable through M16 cable gland (2 meter length, external female RJ45 type) (cable kit must be installed by user) ④ Swappable M12 COM extension cable (2 meter length, M12 to PPC, external 9pin male type) (for configuration A,B/C) ⑤ Swappable M12 USB2.0 port extension cable (0.3 meter length, M12 to PPC, external female type A connectors) (for configuration B/C, D) ⑥ Swappable M12 DC power extension cable (1.2 meter length, M12, stripped and tinned wires on opposite end to DC 24V output power supply)
Customization	① Kit to support over 100 meter power supply length, ② Power on/off switch ③ EtherNet/ IP (Industrial Protocol) Interface (temperature code condition is T4, not co-existed with other mini-PCIe module) ④ PROFIBUS DP (process field bus decentralized peripherals)-slave Network Interface (temperature code condition is T4, not co-existed with other mini-PCIe module) ⑤ DeviceNet-slave Interface (temperature code condition is T4, not co-existed with other mini-PCIe module) ⑥ CC-Link (control & communication link)-slave interface (temperature code condition is T4, not co-existed with other mini-PCIe module) ⑦ Panel mounting by bezel kit (not co-exist with wireless function) ⑧ 50 meter DC cable to support 50 meter power length ⑨ 100 meter DC cable to support 100 meter power length ⑩ Wall mount/ Table mount bracket

Order Information

Item	Cooling	Description
PPC-EXP220W1	Fanless	21.5" Core i5-6200U / DDR4 4G RAM/ 128G SSD/ Full flat R-touch

Configuration A,D



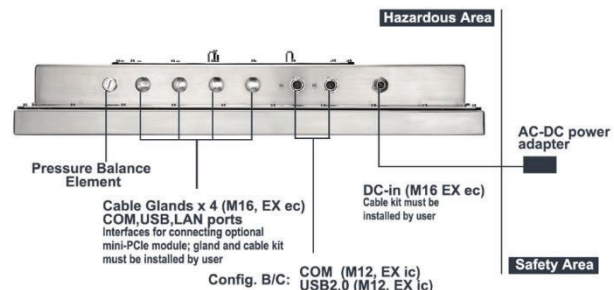
Entity parameters A

COM1: U _o = 10.0 V, I _o = 38.9 mA, P _o = 389 mW, C _o = 2.8μF, L _o = 52.867 mH
COM2: U _o = 9.0 V, I _o = 31.6 mA, P _o = 284 mW, C _o = 0.3μF, L _o = 80.115 mH

Entity parameters D

USB: U _o = 5.5 V, I _o = 151.2 mA, P _o = 0.8316 W, C _o = 1000μF, L _o = 3.499 mH

Configuration B/C



Entity parameters B/C

COM: U _o = 9.0 V, I _o = 31.6 mA, P _o = 284 mW, C _o = 0.3 μF, L _o = 80.115 mH
USB: U _o = 5.5 V, I _o = 151.2 mA, P _o = 0.8316 W, C _o = 1000 μF, L _o = 3.499 mH



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