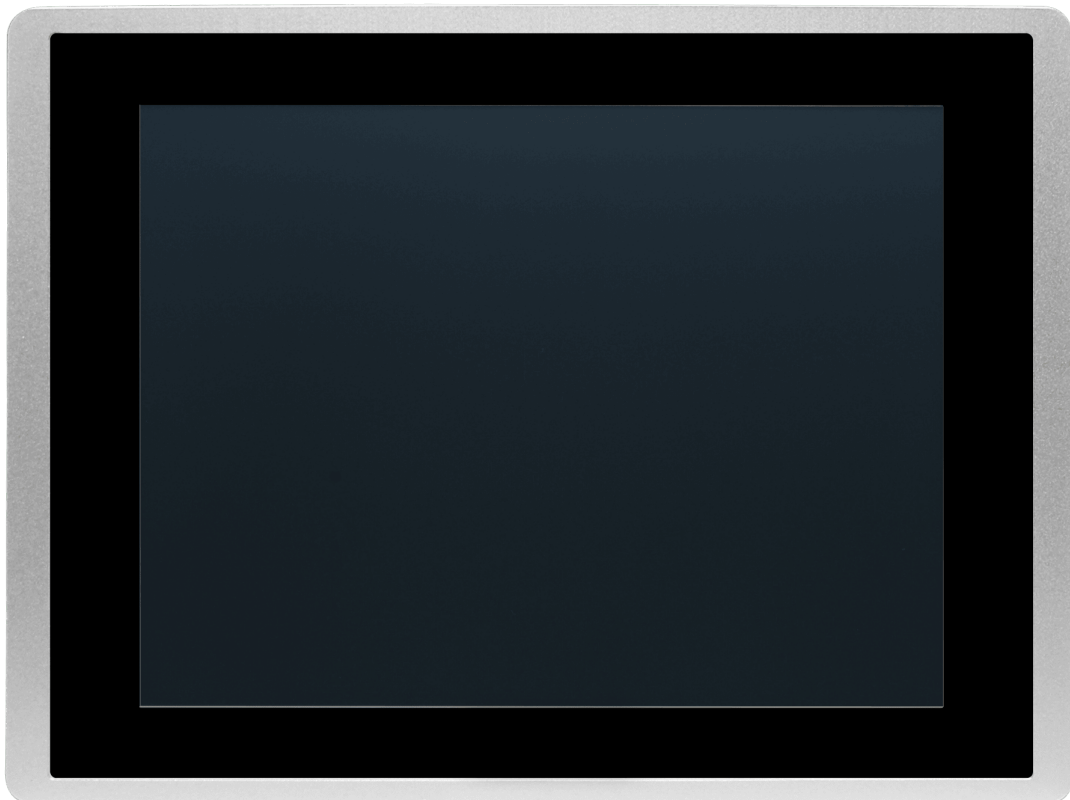


# PT2121-51ST-V2Q4

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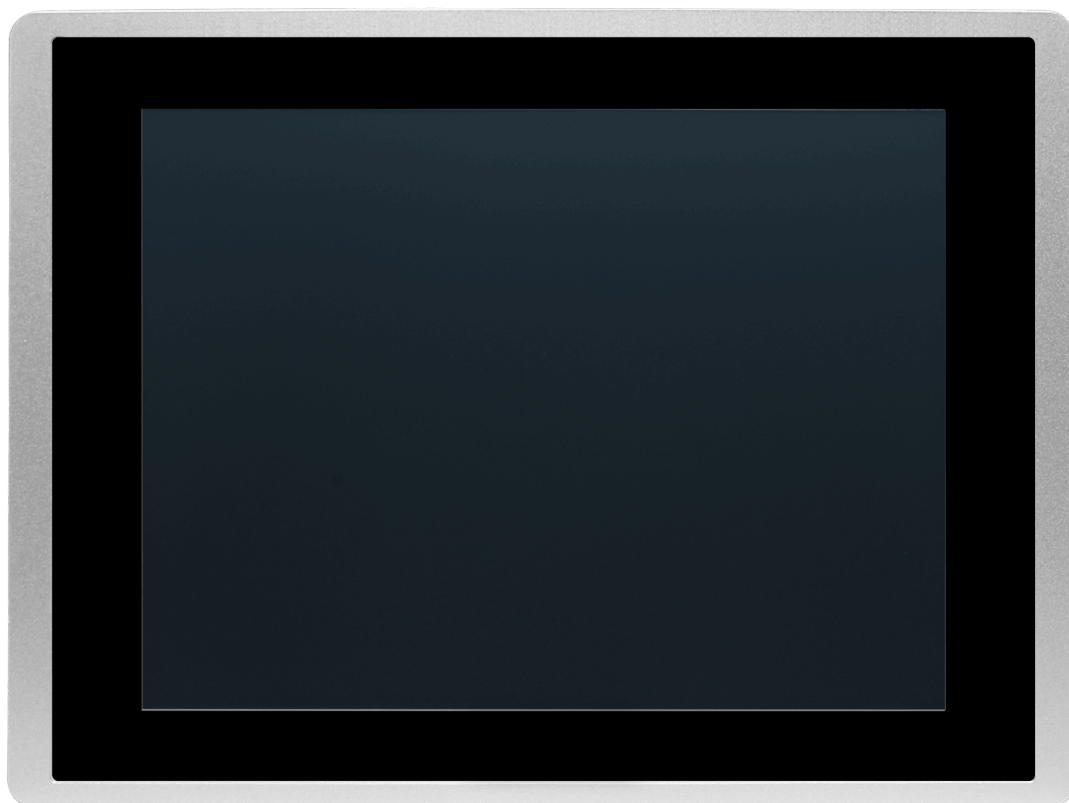


# Product Specification

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<b>Touch</b>	Resistivo
<b>Feature</b>	-
<b>Performance</b>	-
<b>Inch</b>	12,1"
<b>Form Factor</b>	4:3
<b>Display</b>	LCD
<b>Resolution</b>	1024 x 768
<b>Colors</b>	16bit
<b>LCD view angles (T/B/L/R)</b>	-
<b>Brightness</b>	500cd/m2
<b>Backlight</b>	LED
<b>Display life</b>	50000h
<b>CPU</b>	RISC ARM9 300MHz
<b>RAM</b>	64MB
<b>Storage</b>	64MB
<b>Battery backup Memory</b>	1MB
<b>RTC</b>	Built in
<b>SD card</b>	-
<b>Ethernet</b>	1x 10/100Mb/s
<b>USB Host</b>	USB Type A
<b>Programming port</b>	USB Type B
<b>COM 1</b>	RS232

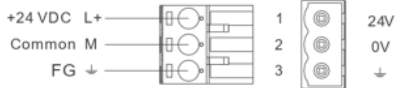
<b>COM 2</b>	RS422/485
<b>COM 3</b>	RS485
<b>COM 4</b>	RS485
<b>COM 5</b>	RS485
<b>Power Supply</b>	24Vdc $\pm$ 10% (isolated)
<b>Power Consumption</b>	20W
<b>Storage Temperature</b>	-10 ~ 60°C
<b>Operating Temperature</b>	-10 ~ 60°C
<b>Relative Humidity</b>	10 - 90%RH (non-condensate)
<b>Vibration</b>	Random vibration 1Grms (5 ~ 500Hz)
<b>Protection Degree (Front)</b>	IP66
<b>Protection Degree (Back)</b>	IP20
<b>Lightning</b>	-
<b>Case Material</b>	ABS
<b>Mounting</b>	Panel-Mount
<b>Cutout</b>	302 x 228mm
<b>Dimension</b>	335,4 x 245,8 x 66,4mm
<b>Weight</b>	2000g
<b>CE</b>	EN61000-6-2, EN61000-6-4
<b>RoHS</b>	Compliant
<b>UL</b>	Optional





### Power supply / 電源供應 / 電源供應

Powered by a Low Voltage / Limited Energy power source  
 以低電壓提供電力/限制能源電源 / 以低電壓提供電力/限制能源電源



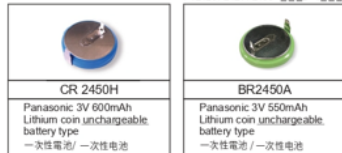
Do not open the rear cover of the panel when power is applied.  
 電源通電時請勿拆開後殼 / 電源通電時請勿拆開後殼

Be sure that the power supply has enough power capacity for the operation of the equipment.  
 這電時請確定電源設備的電源能力符合產品硬體規範。  
 這電時請確定電源設備的電源能力符合產品硬體規範。

- PT2043: 24VDC / 0.4A
- PT2070(F) & PT2070(L) & PT2080 & PT2100 & PT2104 & PT2120 & PT2121 & PT2150: 24VDC / 0.8A

### Dispose of batteries / 電池處理 / 電池處理

PT2043 / 2070 - L-F -- &  
 PT2070 / 2080 / 2100 / 2104 - L-U -- &  
 PT2120 / 2121 / 2150 - L-V -- &



Dispose of batteries according to local regulations.  
 依照電池的處理請依照使用者所在地之規範辦理廢棄電池處理方式。  
 依照電池的處理請依照使用者所在地之規範辦理廢棄電池處理方式。

### Pin diagram / 腳位圖 / 腳位圖

Model	Terminal	Pin	Description
PT2043	21S / (Option) / 31S / 41S	1	RS422 TXD+ / RS485+ (COM2)
		2	RS422 RXD- / RS485- (COM3)
		3	RS422 TXD- / RS485- (COM2)
		4	RS422 RXD+ (COM3)
PT2070(F) & PT2070(L) & PT2080 & PT2100 & PT2104 & PT2120 & PT2121 & PT2150	31S / (Option) / 51S- / 51R	1	RS422 TXD+ / RS485+ (COM2)
		2	RS422 RXD- (COM1)
		3	RS422 TXD- (COM1)
		4	RS422 RXD+ (COM2)
PT2043	COM1 & COM3	5	SD
		6	RS422 TXD- / RS485- (COM2)
		7	RS485- (COM3)
		8	RS422 RXD- (COM2)
PT2043	COM2 & COM4	9	RS422 RXD+ (COM3)
		10	RS422 TXD+ / RS485+ (COM2)
		11	RS422 RXD- (COM1)
		12	RS422 TXD- (COM1)
PT2043	COM1 & COM3	13	RS422 TXD+ / RS485+ (COM2)
		14	RS422 RXD- (COM1)
		15	RS422 TXD- (COM1)
		16	RS422 RXD+ (COM2)
PT2043	COM2 & COM4	17	SD
		18	RS422 TXD- / RS485- (COM2)
		19	RS485- (COM3)
		20	RS422 RXD- (COM2)
PT2043	COM1 & COM3	21	RS422 RXD+ (COM3)
		22	RS422 TXD+ / RS485+ (COM2)
		23	RS422 RXD- (COM1)
		24	RS422 TXD- (COM1)
PT2043	COM2 & COM4	25	SD
		26	RS422 TXD- / RS485- (COM2)
		27	RS485- (COM3)
		28	RS422 RXD- (COM2)
PT2043	COM1 & COM3	29	RS422 RXD+ (COM3)
		30	RS422 TXD+ / RS485+ (COM2)
		31	RS422 RXD- (COM1)
		32	RS422 TXD- (COM1)
PT2043	COM2 & COM4	33	SD
		34	RS422 TXD- / RS485- (COM2)
		35	RS485- (COM3)
		36	RS422 RXD- (COM2)
PT2043	COM1 & COM3	37	RS422 RXD+ (COM3)
		38	RS422 TXD+ / RS485+ (COM2)
		39	RS422 RXD- (COM1)
		40	RS422 TXD- (COM1)
PT2043	COM2 & COM4	41	SD
		42	RS422 TXD- / RS485- (COM2)
		43	RS485- (COM3)
		44	RS422 RXD- (COM2)
PT2043	COM1 & COM3	45	RS422 RXD+ (COM3)
		46	RS422 TXD+ / RS485+ (COM2)
		47	RS422 RXD- (COM1)
		48	RS422 TXD- (COM1)
PT2043	COM2 & COM4	49	SD
		50	RS422 TXD- / RS485- (COM2)
		51	RS485- (COM3)
		52	RS422 RXD- (COM2)
PT2043	COM1 & COM3	53	RS422 RXD+ (COM3)
		54	RS422 TXD+ / RS485+ (COM2)
		55	RS422 RXD- (COM1)
		56	RS422 TXD- (COM1)
PT2043	COM2 & COM4	57	SD
		58	RS422 TXD- / RS485- (COM2)
		59	RS485- (COM3)
		60	RS422 RXD- (COM2)
PT2043	COM1 & COM3	61	RS422 RXD+ (COM3)
		62	RS422 TXD+ / RS485+ (COM2)
		63	RS422 RXD- (COM1)
		64	RS422 TXD- (COM1)
PT2043	COM2 & COM4	65	SD
		66	RS422 TXD- / RS485- (COM2)
		67	RS485- (COM3)
		68	RS422 RXD- (COM2)
PT2043	COM1 & COM3	69	RS422 RXD+ (COM3)
		70	RS422 TXD+ / RS485+ (COM2)
		71	RS422 RXD- (COM1)
		72	RS422 TXD- (COM1)
PT2043	COM2 & COM4	73	SD
		74	RS422 TXD- / RS485- (COM2)
		75	RS485- (COM3)
		76	RS422 RXD- (COM2)
PT2043	COM1 & COM3	77	RS422 RXD+ (COM3)
		78	RS422 TXD+ / RS485+ (COM2)
		79	RS422 RXD- (COM1)
		80	RS422 TXD- (COM1)
PT2043	COM2 & COM4	81	SD
		82	RS422 TXD- / RS485- (COM2)
		83	RS485- (COM3)
		84	RS422 RXD- (COM2)
PT2043	COM1 & COM3	85	RS422 RXD+ (COM3)
		86	RS422 TXD+ / RS485+ (COM2)
		87	RS422 RXD- (COM1)
		88	RS422 TXD- (COM1)
PT2043	COM2 & COM4	89	SD
		90	RS422 TXD- / RS485- (COM2)
		91	RS485- (COM3)
		92	RS422 RXD- (COM2)
PT2043	COM1 & COM3	93	RS422 RXD+ (COM3)
		94	RS422 TXD+ / RS485+ (COM2)
		95	RS422 RXD- (COM1)
		96	RS422 TXD- (COM1)
PT2043	COM2 & COM4	97	SD
		98	RS422 TXD- / RS485- (COM2)
		99	RS485- (COM3)
		100	RS422 RXD- (COM2)

### Battery replacement installation / 替代電池安裝說明 / 替代電池安裝說明

Please scan QR Code to download the installation guide.  
 請掃描QR Code下載說明文件 / 請掃描QR Code下載說明文件

- \* Note: It will affect the product warranty. If open the rear cover and damage the "Void if torn" Warranty label. Please contact us for details.
- \* 注意: 若於產品保固期間內自行拆開後殼造成「撕毀保固無效」貼紙損毀將會影響產品保固。
- \* 注意: 若於產品保固期間內自行拆開後殼造成「撕毀保固無效」貼紙損毀將會影響產品保固。



<https://reurl.cc/9WZqM>

The products have been designed for use in an industrial environment in compliance with the 2014/30/EU directive.  
 本產品適用於工業環境並符合2014/30/EU標準 / 本產品適用於工業環境並符合2014/30/EU標準

The products have been designed in compliance with:

- EN IEC 61000-6-4: 2019
- EN IEC 61000-6-2: 2019
- BS EN IEC 61000-6-4: 2019
- BS EN IEC 61000-6-2: 2019
- EN 61000-3-2: 2014
- IEC 61000-4-2: 2008
- IEC 61000-4-3: 2008
- EN 61000-3-3: 2013
- BS EN 61000-3-3: 2013
- EN IEC 61000-6-2: 2019
- BS EN IEC 61000-6-2: 2019
- EN IEC 61000-6-3: 2019
- IEC 61000-6-3: 2019
- EN 61000-6-3: 2019
- IEC 61000-6-3: 2019
- EN 61000-6-3: 2019
- IEC 61000-6-3: 2019
- EN 61000-6-3: 2019
- IEC 61000-6-3: 2019

The installation of these devices into residential, commercial and light-industrial environments is allowed only special measures are taken in order to get the conformity to IEC-61000-6-3  
 本產品若安裝於住宅、商業及輕工業的環境時，必須加裝特殊措施以符合IEC-61000-6-3 / 本產品若安裝於住宅、商業及輕工業的環境時，必須加裝特殊措施以符合IEC-61000-6-3

### NEMA Certification:

### NEMA Type 4X Indoor Use Only

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### CAUTION

- Indoor use and pollution degree II, it must be wiped with a dry cloth for cleaning up the labeling.
- Please be used qualified power supply by SELV or double insulation of UL60950 or UL61010-1 or UL61010-2-201 standards.
- UL61010-2-201: Shall be mounted in the Industrial Control Panel, and the ambient temperature does not exceed 60 degrees C.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- We suggest using the cable type - AWG (American Wire Gauge) 18-24 and the corresponding pin type cable terminals.
- We suggest used torque value 4.60 lb-in, do not use excessive force when fixing wiring.
- Altitude: up to 2000 m
- Maximum ambient temperature rated:  
 PT2043, PT2070, PT2080, PT2100, PT2104: 60 degree C /  
 PT2120, PT2121, PT2150: 70 degree C
- Minimum ambient temperature rated - 10 degree C
- Input Wiring Rating: Min. 90 degree C

### ATTENTION

- En cas d'utilisation dans un intérieur soumis à une pollution degré II, l'équipement doit être nettoyé à l'aide d'un tissu sec.
- L'alimentation utilisée doit respecter la norme SELV ou avoir une double isolation de type UL60950, UL61010-1 ou UL61010-2-201.
- UL61010-2-201: Doit être monté dans une armoire industrielle dont la température ambiante ne dépasse pas 60 degrés Celsius.
- En cas d'utilisation non conforme ou non spécifiée par le fabricant, la protection de l'équipement peut être inadéquate.
- Nous suggérons d'utiliser un type de câble AWG (American Wire Gauge) 18-24 avec les bornes correspondantes.
- Le couple de serrage recommandé pour les vis des bornes est de 4.60 lb-in, ne pas utiliser une force excessive.
- Altitude: jusqu'à 2000 m
- Température ambiante maximale évaluée:  
 PT2043, PT2070, PT2080, PT2100, PT2104, PT2104: 60 degree C /  
 PT2120, PT2121, PT2150: 70 degree C
- Température ambiante minimale nominale - 10 degree C
- Puissance du câblage d'entrée: min. 90 degrés C

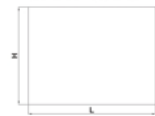
Ceramate Technologies Inc.  
 7F-1, No. 168, Luancheng Rd, Zhonghe Dist.,  
 New Taipei City 235, Taiwan (R.O.C.)

**PT2 series HMI panels / PT2 系列人機介面 / PT2 系列人機界面**

Outlet dimension / 外觀尺寸 / 外觀尺寸



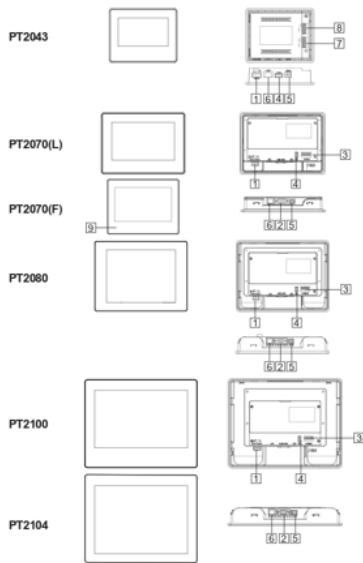
Cut out dimension / 開孔尺寸 / 開孔尺寸



Model	A	B	C*	L	H
PT2043	128mm5.08"	103mm4.06"	33mm1.30"	118.5mm4.67"	92.5mm3.64"
PT2070(F)	189.6mm7.46"	144.9mm5.70"	36.1mm1.42"	175mm6.89"	132.5mm5.22"
PT2070(L)	203.8mm8.02"	148.8mm5.90"	37.1mm1.46"	191.5mm7.54"	130mm5.43"
PT2080	231.6mm9.12"	176.3mm6.94"	43.4mm1.70"	221mm8.70"	163.5mm6.44"
PT2100 / PT2104	270.1mm10.63"	212.1mm8.35"	43.4mm1.71"	259mm10.2"	201mm7.91"
PT2120 / PT2121	335.4mm13.20"	245.8mm9.68"	66.4mm2.61"	302mm11.89"	229mm8.98"
PT2150	398.1mm15.71"	297.8mm11.72"	63.4mm2.50"	364.5mm14.31"	283mm11.14"

\* Includes 5-Pin terminal block height / 產品高度包含5Pin端子 / 產品高度包含5Pin端子

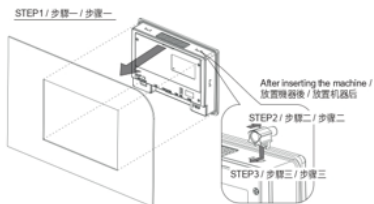
**Function view / 功能配置圖 / 功能配置圖**



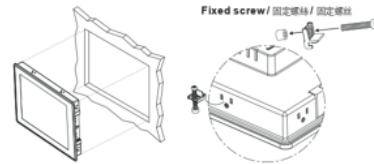
3

**Installation drawing for locks / 固定件安裝示意圖 / 鎖具安裝示意圖**

Plastic locks / 塑膠安裝固定件 / 塑膠安裝鎖具

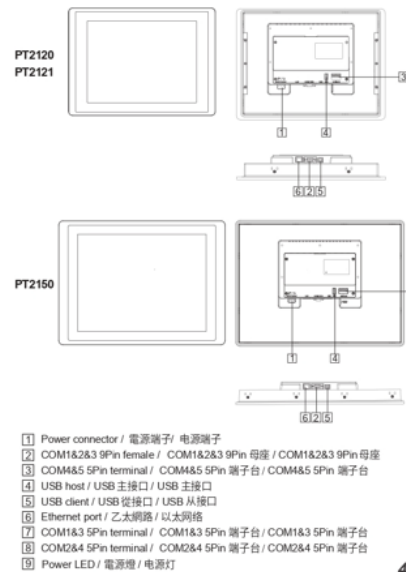


Metal locks / 金屬安裝固定件 / 金屬安裝鎖具



Tighten each fixing screw until the bezel corner gets in contact with the panel.  
使用固定螺絲時請注意不要鎖太緊，以免壓到造成其他損傷。  
使用固定螺絲時請注意不要鎖太緊，以免壓到造成其他損傷。  
Suggested torque for fixing screws: 0.25-0.34Nm / 固定螺絲扭力建議值: 0.25-0.34Nm

2



4