



Features:

- Modular design options from 11.6 to 27 inches, supporting both square and widescreen displays.
- Ten-point capacitive touchscreen.
- All-plastic mold middle frame with a front panel designed to IP65 standards.
- Utilizes the Intel® Celeron® J1900 ultra-low power consumption CPU.
- Onboard 6 COM ports, supporting two isolated RS485 channels.
- Integrated dual Intel® Gigabit network cards.
- Supports dual hard drive storage.
- Compatible with APQ aDoor module expansion.
- Supports WiFi/4G wireless expansion.
- Fanless design for quiet operation.
- Embedded/VESA mounting options.
- Powered by 12~28V DC supply.



Remote Management



Status Monitoring


 Remote Operations
and Maintenance

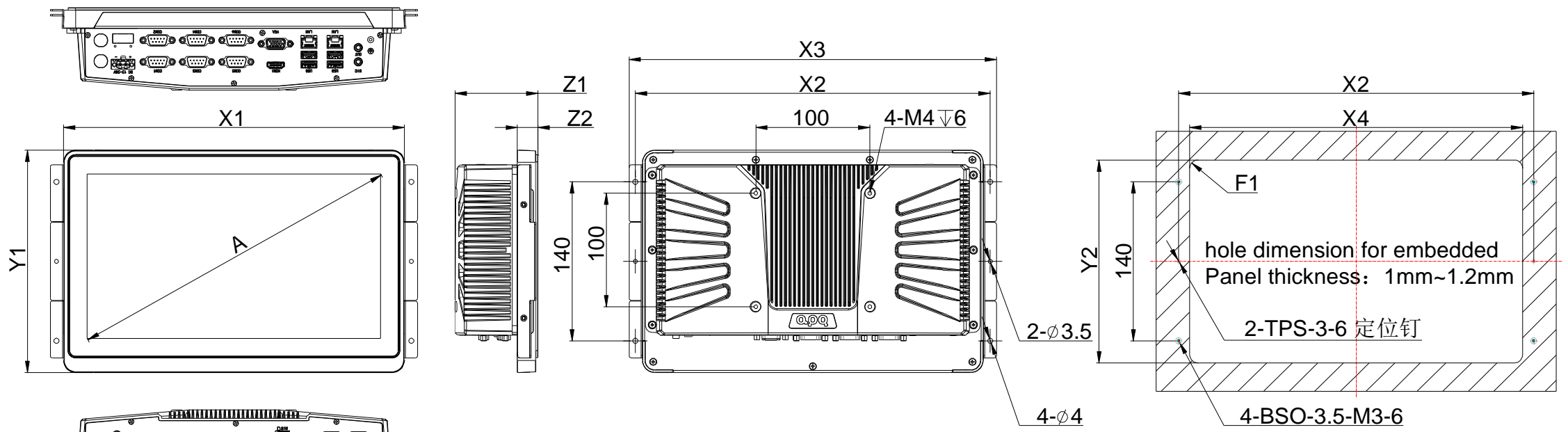

Security Control

Product Specifications

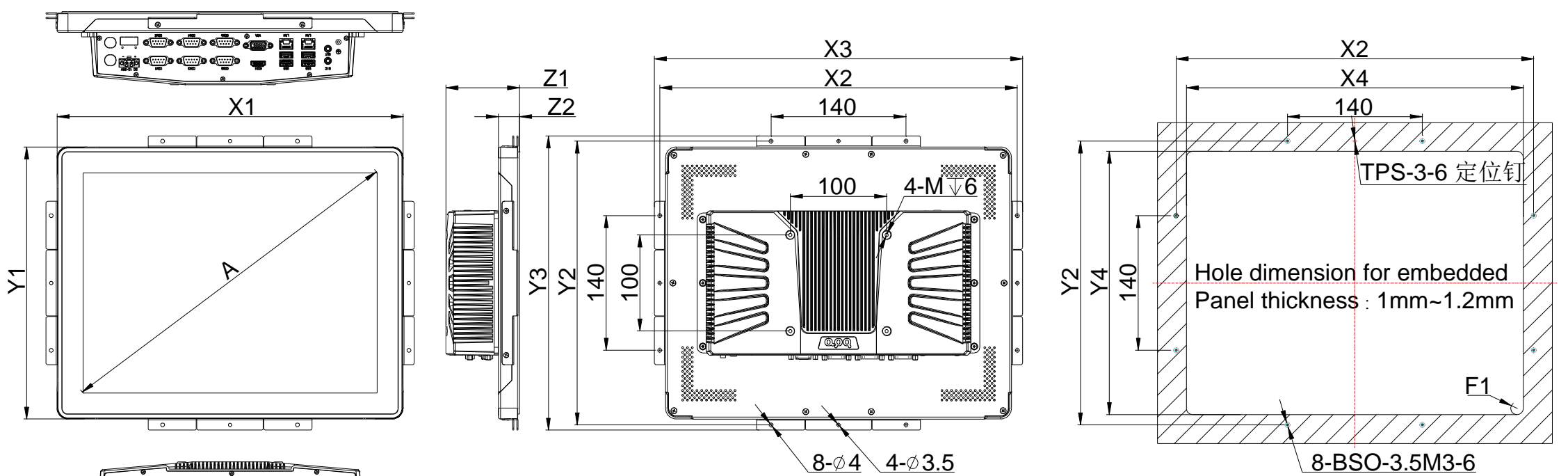
Model	PH116CL-E5M	PH133CL-E5M	PH150CL-E5M	PH156CL-E5M	PH170CL-E5M	PH185CL-E5M	PH190CL-E5M	PH215CL-E5M	PH238CL-E5M	PH270CL-E5M	
LCD	Display Size	11.6"	13.3"	15.0"	15.6"	17.0"	18.5"	19.0"	21.5"	23.8"	27"
	Display Type	FHD TFT-LCD	FHD TFT-LCD	XGA TFT-LCD	WXGA TFT-LCD	SXGA TFT-LCD	WXGA TFT-LCD	SXGA TFT-LCD	FHD TFT-LCD	FHD TFT-LCD	FHD TFT-LCD
	Max.Resolution	1920 x 1080	1920 x 1080	1024 x 768	1920 x 1080	1280 x 1024	1366 x 768	1280 x 1024	1920 x 1080	1920 x 1080	1920 x 1080
	Aspect Ratio	16:9	16:9	4:3	16:9	5:4	16:9	5:4	16:9	16:9	16:9
	Viewing Angle	89/89/89/89	85/85/85/85	89/89/89/89	85/85/85/85	85/85/80/80	85/85/80/80	85/85/80/80	89/89/89/89	89/89/89/89	89/89/89/89
	Luminance	220 cd/m2	300 cd/m2	350 cd/m2	220 cd/m2	250 cd/m2	250 cd/m2	250 cd/m2	250 cd/m2	250 cd/m2	300 cd/m2
	Contrast Ratio	800:1	800:1	1000:1	800:1	1000:1	1000:1	1000:1	1000:1	1000:1	3000:1
	Backlight Lifetime	15,000 Hrs	15,000 Hrs	50,000 Hrs	50,000 Hrs	50,000 Hrs	30,000 Hrs	30,000 Hrs	30,000 Hrs	30,000 Hrs	30,000 Hrs
Touchscreen	Touch Type	Projected Capacitive Touch									
	Touch Controller	USB									
	Input	Finger/Capacitive Touch Pen									
	Light Transmission	≥85%									
	Response time	< 10ms									
Processor System	CPU	Intel® Celeron® J1900									
	Base Frequency	2.00 GHz									
	Max Turbo Frequency	2.42 GHz									
	Cache	2MB									
	Total Cores/Threads	4/4									
	TDP	10W									
	Chipset	SOC									
	BIOS	AMI UEFI BIOS									
Memory	Socket	1 * DDR3L-1333MHz SO-DIMM Slot									
	Max Capacity	8GB									
Graphics	Controller	Intel® HD Graphics									
Ethernet	Controller	2 * Intel® i210-AT (10/100/1000 Mbps, RJ45)									
Storage	SATA	1 * SATA2.0 Connector (2.5-inch hard disk with 15+7pin)									
	M.2	1 * M.2 Key-M Slot (support SATA SSD, 2280)									
Expansion Slots	MXM/aDoor	1 * MXM slot (LPC+GPIO, support COM/GPIO MXM card)									
	Mini PCIe	1 * Mini PCIe Slot (PCIe2.0+USB2.0)									
Front I/O	USB	1 * USB3.0 (Type-A) 3 * USB2.0 (Type-A)									
	Ethernet	2 * RJ45									
	Display	1 * VGA: max resolution up to 1920*1280@60Hz 1 * HDMI: max resolution up to 1920*1280@60Hz									
	Audio	1 * 3.5mm Line-out Jack 1 * 3.5mm MIC Jack									
	Serial	2 * RS232/485 (COM1/2, DB9/M) 4 * RS232 (COM3/4/5/6, DB9/M)									
	Power	1 * 2Pin Power Input Connector (12~28V, P= 5.08mm)									
Rear I/O	USB	4 * USB2.0 (Type-A)									
	SIM	1 * Nano SIM Card slot (Mini PCIe module provides functional support)									
	Button	1 * Power Button with LED									
Internal I/O	Front Panel	1 * TFront Panel (3*USB2.0+Front Panel, 10x2Pin, PHD2.0) 1 * Front Panel (3x2Pin, PHD2.0)									
	FAN	1 * SYS FAN (4x1Pin, MX1.25)									
	LPC	1 * LPC (8x2Pin, PHD2.0)									
	PS/2	1 * PS/2 (PS/2 keyboard + mouse, 6x1Pin, PH2.0)									
	USB	2 * USB2.0 (5x2Pin, PH2.0)									
	Power	1 * DCIN (power input, 4x1Pin, XH2.54)									
	Display	1 * LVDS/eDP (Default LVDS, 20x2Pin, PHD2.0)									
	GPIO	1 * 16bits DIO (8xDI and 8xDO, 10x2Pin, PHD2.0)									
Audio	1 * Front Audio (header, Line-Out + MIC, 5x2Pin 2.54mm)										
	1 * Speaker (2-W (per channel)/8-Ω Loads, 4x1Pin, PH2.0)										
Power Supply	Type	DC									
	Power Input Voltage	12~28VDC									
	Connector	1 * 2Pin Power Input Connector (12~28V, P= 5.08mm)									
	RTC Battery	CR2032 Coin Cell									
OS Support	Windows	Windows 7/8.1/10									
	Linux	Linux									
Watchdog	Output	System Reset									
	Interval	Programmable 1 ~ 255 sec									
Mechanical	Enclosure Material	Panel: Plastics, Radiator: Aluminum, Cover/Box: SGCC									
	Mounting	VESA, embedded									
	Dimensions (L*W*H, Unit: mm)	298.1*195.8*72.5	333.7*216*70.7	359*283*76.3	401.5*250.7*73.2	393*325.6*76.3	464.9*285.5*76.2	431*355.8*76.3	532.3*323.7*76.2	585.4*357.7*76.2	662.3*400.9*76.2
Weight	Net:	3.1kg	3.3kg	4.5kg	4.6kg	5.5kg	5.6kg	6.4kg	6.6kg	8.2kg	9.3kg
	Total:	4.4kg	4.6kg	6kg	6.2kg	7.2kg	7.3kg	8.2kg	8.5kg	10.1kg	11.4kg
Environment	Heat Dissipation System	Passive heat dissipation									
	Operating Temperature	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C
	Storage Temperature	-20~60°C	-20~60°C	-20~60°C	-20~60°C	-20~60°C	-20~60°C	-20~60°C	-20~60°C	-20~60°C	-20~60°C
Relative Humidity	10 to 95% RH (non-condensing)										

Vibration During Operation	With SSD: IEC 60068-2-64 (1Grms@5~500Hz, random, 1hr/axis)
Shock During Operation	With SSD: IEC 60068-2-27 (15G, half sine, 11ms)

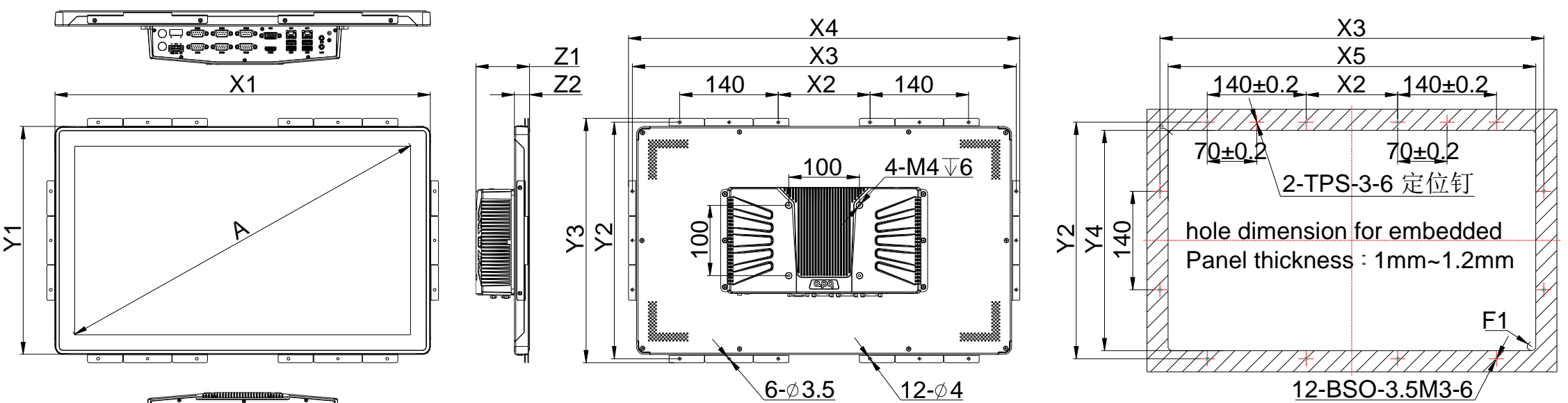
Product Dimensions



A	System Dimension			Panel Mount				
	X1	Y1	Z1	X2	Y2	Z2	X3	F1
11.6"	298.8	195.8	72.5	311.3	178.7	18	322.3	6.9
13.3"	333.7	216	70.7	346.9	197.3	16.2	357.7	6



A	System Dimension			Panel Mount							
	X1	Y1	Z1	X2	Y2	Z2	X3	Y3	X4	Y4	F1
15.0"	359	283	76.3	371.2	295.1	21.8	382.2	306.1	349.7	273.7	6.5
15.6"	401.5	250.7	73.2	413.9	263.1	18.7	424.9	274.1	389.1	238.3	6
17.0"	393	325.6	76.3	405.2	337.8	21.8	416.2	348.8	383	315.5	6
18.5"	464.9	285.5	76.2	476.9	297.5	21.7	487.9	308.5	454.3	274.9	6
19.0"	431	355.8	76.3	443.2	367.9	21.8	454.2	378.9	420.5	345.2	6



A	System Dimension			Panel Mount								
	X1	Y1	Z1	X2	Y2	Z2	X3	Y3	X4	Y4	X5	F1
21.5"	532.3	323.7	76.2	130	335.8	21.7	544.4	346.8	555.4	313.1	521.6	6
23.8"	585.4	357.7	76.2	130	369.8	21.7	597.5	380.8	608.5	347.1	574.8	6
27.0"	662.3	400.9	76.2	190	413.2	21.7	674.6	424.2	685.6	390.5	651.9	6

Product I/O

