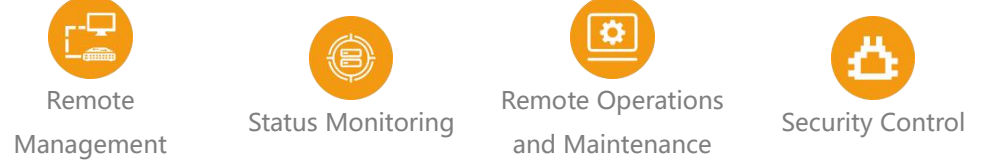




Features:

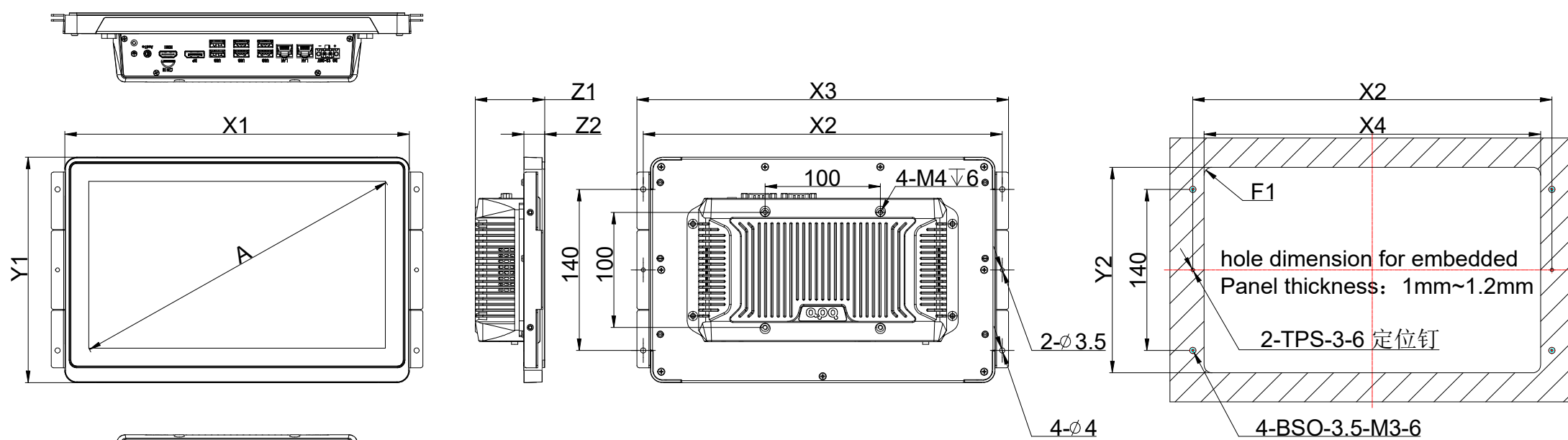
- Modular Design: Available in 10.1" to 27", supports both square and widescreen options
- Touchscreen: 10-point capacitive touch screen
- Construction: Full plastic mold mid-frame, front panel with IP65 design
- Processor: Utilizes Intel® J6412/N97/N305 low-power CPUs
- Network: Integrated dual Intel® Gigabit Ethernet ports
- Storage: Dual hard drive storage support
- Expansion: Supports APQ aDoor module expansion and WiFi/4G wireless expansion
- Design: Fanless design
- Mounting Options: Supports embedded and VESA mounting
- Power Supply: 12~28V DC wide voltage power supply



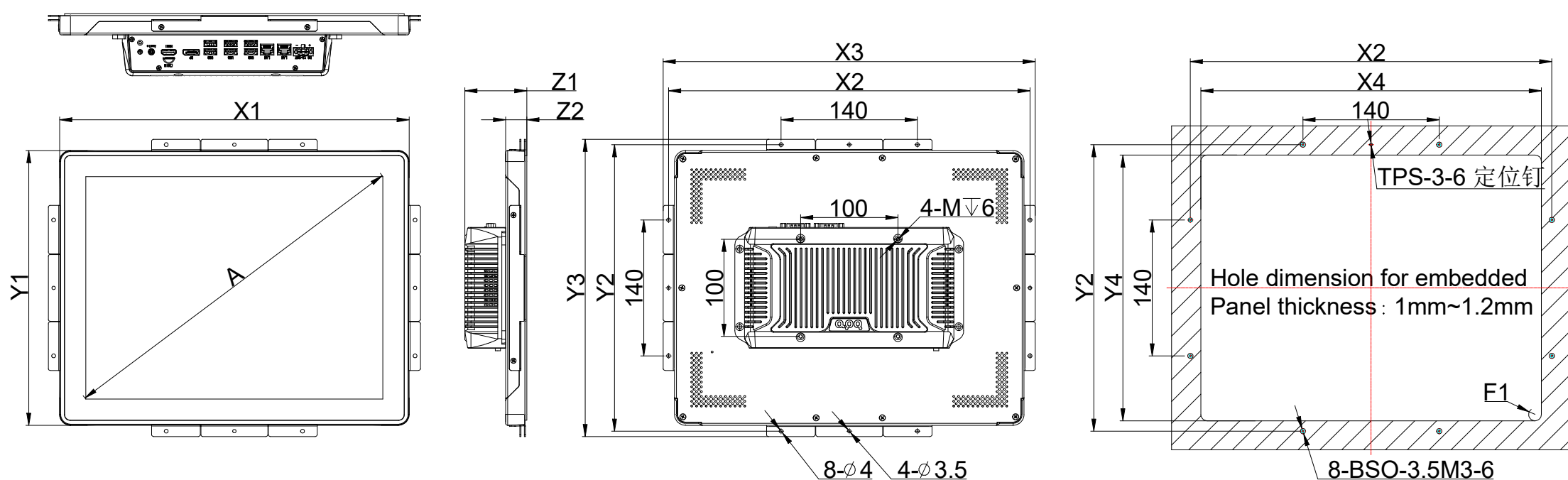
Product Specifications

Model	PH101CL-E5S	PH116CL-E5S	PH133CL-E5S	PH150CL-E5S	PH156CL-E5S	PH170CL-E5S	PH185CL-E5S	PH190CL-E5S	PH215CL-E5S	PH238CL-E5S	PH270CL-E5S		
LCD	Display Size	10.1"	11.6"	13.3"	15.0"	15.6"	17.0"	18.5"	19.0"	21.5"	23.8"	27"	
	Max.Resolution	1280 x 800	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	16:10	16:09	16:09	4:03	16:09	5:04	16:09	5:04	16:09	16:09	16:09	
	Viewing Angle	85/85/85/85	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	350 cd/m2	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	800:01:00	800:01:00	800:01:00	1000:01:00	800:01:00	1000:01:00	1000:01:00	1000:01:00	1000:01:00	1000:01:00	3000:01:00	
	Backlight Lifetime	25,000 Hrs	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%											
	Hardness	6H											
Response time	< 10ms												
Processor System	CPU	Intel® Elkhart Lake J6412				Intel® Alder Lake N97				Intel® Alder Lake N305			
	Base Frequency	2.00 GHz				2.0 GHz				1 GHz			
	Max Turbo Frequency	2.60 GHz				3.60 GHz				3.8GHz			
	Cache	1.5MB				6MB				6MB			
	Total Cores/Threads	4/4				4/4				8/8			
	Chipset	SOC											
	BIOS	AMI UEFI BIOS											
Memory	Socket	LPDDR4 3200 MHz (Onboard)											
	Capacity	8GB											
Graphics	Controller	Intel® UHD Graphics											
Ethernet	Controller	2 * Intel® i210-AT (10/100/1000 Mbps, RJ45)											
Storage	SATA	1 * SATA3.0 Connector (2.5-inch hard disk with 15+7Pin)											
	M.2	1 * M.2 Key-M Slot (SATA SSD, 2280)											
Expansion Slots	aDoor	1 * aDoor											
	Mini PCIe	1 * Mini PCIe Slot (PCIe2.0x1+USB2.0)											
Front I/O	USB	4 * USB3.0 (Type-A) 2 * USB2.0 (Type-A)											
	Ethernet	2 * RJ45											
	Display	1 * DP++: max resolution up to 4096x2160@60Hz 1 * HDMI (Type-A): max resolution up to 2048x1080@60Hz											
	Audio	1 * 3.5mm Jack (Line-Out + MIC, CTIA)											
	SIM	1 * Nano-SIM Card slot (Mini PCIe module provides functional support)											
Rear I/O	Power	1 * Power Input Connector (12~28V)											
	Button	1 * Power Button with Power LED											
Internal I/O	Serial	2 * RS232/485 (COM1/2, DB9/M, BIOS control)											
	Front Panel	1 * Front Panel (3x2Pin, PHD2.0)											
	FAN	1 * SYS FAN (4x1Pin, MX1.25)											
	Serial	2 * COM (JCOM3/4, 5x2Pin, PHD2.0) 2 * COM (JCOM5/6, 5x2Pin, PHD2.0)											
	USB	2 * USB2.0 (F_USB2_1, 5x2Pin, PHD2.0) 2 * USB2.0 (F_USB2_2, 5x2Pin, PHD2.0)											
Power Supply	Display	1 * LVDS/eDP (default LVDS, wafer, 25x2Pin 1.00mm)											
	Audio	1 * Speaker (2-W (per channel)/8-Ω Loads, 4x1Pin, PH2.0)											
	GPIO	1 * 16bits DIO (8xDI and 8xDO, 10x2Pin, PHD2.0)											
	LPC	1 * LPC (8x2Pin, PHD2.0)											
	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 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)	249.8*168.4*53	298.1*195.8*60	333.7*216*58.2	359*283*63.8	401.5*250.7*60.7	393*325.6*63.8	464.9*285.5*63.7	431*355.8*63.8	532.3*323.7*63.7	585.4*357.7*63.7	662.3*400.9*63.7	
	Weight	Net: 2.2kg, Total: 3.4kg	Net: 2.5kg, Total: 3.8kg	Net: 2.7kg, Total: 4kg	Net: 3.9kg, Total: 5.4kg	Net: 4kg, Total: 5.6kg	Net: 4.9kg, Total: 6.6kg	Net: 5 kg, Total: 6.7kg	Net: 5.8kg, Total: 7.6kg	Net: 6kg, Total: 7.9kg	Net: 7.6kg, Total: 9.5kg	Net: 8.7kg, Total: 10.8kg	
Environment	Heat Dissipation System	Passive heat dissipation											
	Operating Temperature	0~50°C											
	Storage Temperature	-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)												

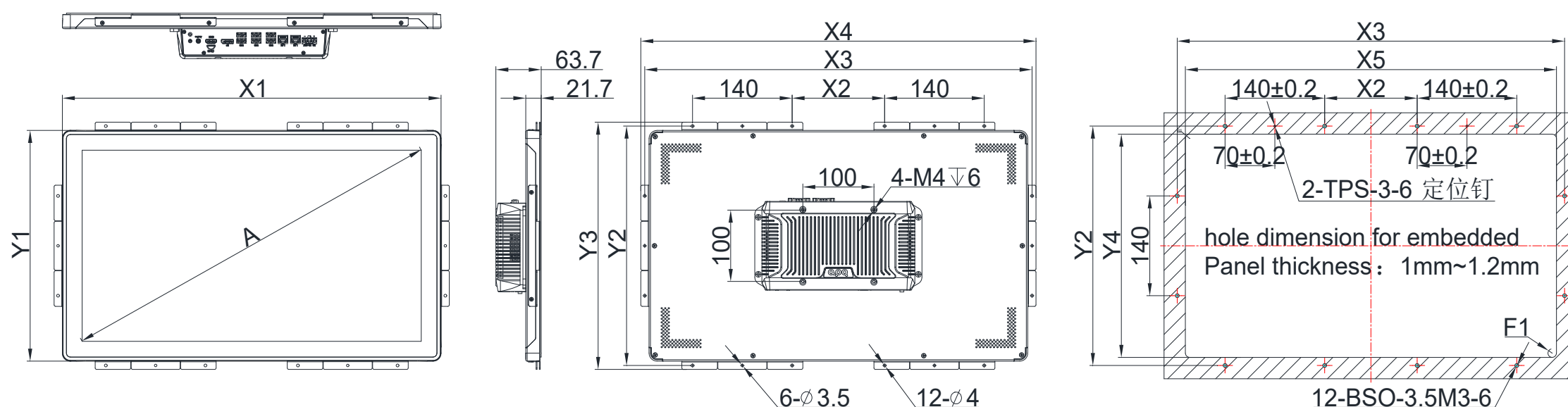
Product Dimensions



A	System Dimension			Panel Mount				
	X1	Y1	Z1	X2	Y2	Z2	X3	F1
10.1"	249.8	168.4	53	263.9	168.4	11	273.9	10.5
11.6"	298.8	195.8	60	311.3	178.7	18	322.3	6.9
13.3"	333.7	216	58.2	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	63.8	371.2	295.1	21.8	382.2	306.1	349.7	273.7	6.5
15.6"	401.5	250.7	60.7	413.9	263.1	18.7	424.9	274.1	389.1	238.3	6
17.0"	393	325.6	63.8	405.2	337.8	21.8	416.2	348.8	383	315.5	6
18.5"	464.9	285.5	63.7	476.9	297.5	21.7	487.9	308.5	454.3	274.9	6
19.0"	431	355.8	63.8	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	63.7	130	335.8	21.7	544.4	346.8	555.4	313.1	521.6	6
23.8"	585.4	357.7	63.7	130	369.8	21.7	597.5	380.8	608.5	347.1	574.8	6
27.0"	662.3	400.9	63.7	190	413.2	21.7	674.6	424.2	685.6	390.5	651.9	6

Product I/O

