



Features:

- Modular design available in sizes from 15 to 27 inches, supporting both square and widescreen displays.
- Ten-point capacitive touchscreen.
- All-plastic mold frame with a front panel designed to IP65 standards.
- Supports Intel® 12th/13th Gen Core / Pentium/ Celeron Desktop CPUs, with a TDP of 65W, LGA1700 socket.
- Equipped with the Intel® Q670 chipset.
- Two Intel network interfaces (1*1GbE & 1*2.5GbE).
- Three display outputs: HDMI, DP++ and internal LVDS, supporting up to 4K@60Hz resolution.
- Rich USB, serial port expansion interfaces, and PCIe, mini PCIe, M.2 expansion slots.
- Intelligent active cooling with a fan.



Remote Management



Status Monitoring



Remote Operations and Maintenance



Security Control

Product Specifications

Model	PH150CL-E7S	PH156CL-E7S	PH170CL-E7S	PH185CL-E7S	PH190CL-E7S	PH215CL-E7S	PH238CL-E7S	PH270CL-E7S	
LCD	Display Size	15.0"	15.6"	17.0"	18.5"	19.0"	21.5"	23.8"	27"
	Display Type	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	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	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	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	250 cd/m2	250 cd/m2	250 cd/m2	250 cd/m2	250 cd/m2	300 cd/m2
	Contrast Ratio	1000:1	800:1	1000:1	1000:1	1000:1	1000:1	1000:1	3000:1
	Backlight Lifetime	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							
	Controller	USB Signal							
	Input	Finger/Capacitive Touch Pen							
	Light Transmission	≥85%							
	Hardness	≥6H							
Processor System	CPU	Intel® 12/13th Generation Core / Pentium/ Celeron Desktop CPU							
	TDP	65W							
	Socket	LGA1700							
	Chipset	Q670							
	BIOS	AMI 256 Mbit SPI							
Memory	Socket	2 * Non-ECC SO-DIMM Slot, Dual Channel DDR4 up to 3200MHz							
	Max Capacity	64GB, Single Max. 32GB							
Graphics	Controller	Intel® UHD Graphics							
Ethernet	Controller	1 * Intel i219-LM 1GbE LAN Chip (LAN1, 10/100/1000 Mbps, RJ45) 1 * Intel i225-V 2.5GbE LAN Chip (LAN2, 10/100/1000/2500 Mbps, RJ45)							
	Storage	1 * SATA3.0, Quick release 2.5" hard disk bays (T≤7mm) 1 * SATA3.0, Internal 2.5" hard disk bays (T≤9mm, Optional) Support RAID 0, 1							
Expansion Slots	aDoor	1 * aDoor Bus (Optional 4 * LAN/4 * POE/6 * COM/16 * GPIO expansion card)							
	Mini PCIe	2 * Mini PCIe (PCIe x1 Gen 3 + USB 2.0, with 1 * SIM Card)							
	M.2	1 * M.2 Key-E (PCIe x1 Gen 3 + USB 2.0, 2230)							
Front I/O	Ethernet	2 * RJ45							
	USB	2 * USB3.2 Gen2x1 (Type-A, 10Gbps) 6 * USB3.2 Gen 1x1 (Type-A, 5Gbps)							
	Display	1 * HDMI1.4b: max resolution up to 4096*2160 @ 30Hz 1 * DP1.4a: max resolution up to 4096*2160 @ 60Hz							
	Audio	2 * 3.5mm Jack (Line-Out + MIC)							
	Serial	2 * RS232/485/422 (COM1/2, DB9/M, Full Lanes, BIOS Switch) 2 * RS232 (COM3/4, DB9/M, Full Lanes)							
	Button	1 * Power Button + Power LED 1 * AT/ATX Button 1 * OS Recover Button 1 * System Reset Button							
Rear I/O	Antenna	4 * Antenna hole							
	SIM	2 * Nano SIM card slots							
Internal I/O	USB	6 * USB2.0 (wafer)							
	LCD	1 * LVDS (wafer): LVDS Resolution up to 1920*1200 @ 60Hz							
	Front Panel	1 * FPanel (PWR+RST+LED, wafer)							
	Audio	1 * Audio (Header) 1 * Speaker (2-W (per channel)/8-Ω Loads, wafer)							
	Serial	2 * RS232 (COM5/6, wafer)							
	GPIO	1 * 16 bits DIO (8xDI and 8xDO, wafer)							
	LPC	1 * LPC (wafer)							
	SATA	3 * SATA 7P Connector, up to 600MB/s							

	SATA Power	3 * SATA Power (wafer)							
	FAN	1 * CPU FAN (wafer) 2 * SYS FAN (KF2510-4A)							
Power Supply	Type	DC, AT/ATX							
	Power Input Voltage	9~36VDC, P≤240W 18~60VDC, P≤400W							
	Connector	1 * 4Pin Connector, P=5.00/5.08							
	RTC Battery	CR2032 Coin Cell							
OS Support	Windows	Windows 10/11							
	Linux	Linux							
Watchdog	Output	System Reset							
	Interval	Programmable 1 ~ 255 sec							
Mechanical	Enclosure Material	Radiator: Aluminum alloy, Box: SGCC							
	Mounting	VESA, Embedded							
	Dimensions (L * W * H, Unit: mm)	359*283*89.5	401.5*250.7*86.4	393*325.6*89.5	464.9*285.5*89.4	431*355.8*89.5	532.3*323.7*89.4	585.4*357.7*89.4	662.3*400.9*89.4
	Weight	Net: 6.9Kg Total: 8.4Kg	Net: 7.2Kg Total: 8.7Kg	Net: 7.9Kg Total: 9.4Kg	Net: 8Kg Total: 9.7Kg	Net: 8.8Kg Total: 10.5Kg	Net: 9Kg Total: 11Kg	Net: 10.6Kg Total: 12.6Kg	Net: 11.7Kg Total: 13.7Kg
Environment	Heat Dissipation System	PWM FAN Cooling							
	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
	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
	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	Y3	X4	Y4	F1	
15.0"	359	283	89.5	371.2	295.1	21.8	382.2	306.1	349.7	273.7	6.5	
15.6"	401.5	250.7	86.4	413.9	263.1	18.7	424.9	274.1	389.1	238.3	6	
17.0"	393	325.6	89.5	405.2	337.8	21.8	416.2	348.8	383	315.5	6	
18.5"	464.9	285.5	89.4	476.9	297.5	21.7	487.9	308.5	454.3	274.9	6	
19.0"	431	355.8	89.5	443.2	367.9	21.8	454.2	378.9	420.5	345.2	6	

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

Product I/O

