



### Features:

- Full-screen capacitive touchscreen design
- Modular design 12.1~21.5" selectable, supports square/wide screen
- Front panel meets IP65 requirements
- Front panel integrates USB Type-A and signal indicator lights
- Supports Intel® 12/13th Gen Core / Pentium/ Celeron Desktop CPU, TDP 35W, LGA1700
- Paired with Intel® Q670 chipset
- 2 Intel network interfaces (1\*1GbE & 1\*2.5GbE)
- 3 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
- Fanless passive cooling



Remote Management



Status Monitoring



Remote Operations and Maintenance



Security Control

## Product Specifications

Model	PL121CQ-E7L	PL150CQ-E7L	PL156CQ-E7L	PL170CQ-E7L	PL185CQ-E7L	PL191CQ-E7L	PL215CQ-E7L	
<b>LCD</b>	Display Size	12.1"	15.0"	15.6"	17.0"	18.5"	19.1"	21.5"
	Display Type	XGA TFT-LCD	XGA TFT-LCD	FHD TFT-LCD	SXGA TFT-LCD	WXGA TFT-LCD	WXGA TFT-LCD	FHD TFT-LCD
	Max.Resolution	1024 x 768	1024 x 768	1920 x 1080	1280 x 1024	1366 x 768	1440 x 900	1920 x 1080
	Luminance	350 cd/m2	300 cd/m2	350 cd/m2	250 cd/m2	250 cd/m2	250 cd/m2	250 cd/m2
	Aspect Ratio	4:3	4:3	16:9	5:4	16:9	16:10	16:9
	Viewing Angle	80/80/80/80°	88/88/88/88°	89/89/89/89°	85/85/80/80°	89/89/89/89°	85/85/80/80°	89/89/89/89°
	Max. Color	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M
	Backlight Lifetime	30,000 hr	70,000 hr	50,000 hr	30,000 hr	30,000 hr	30,000 hr	50,000 hr
	Contrast Ratio	800:1	2000:1	800:1	1000:1	1000:1	1000:1	1000:1
<b>Touchscreen</b>	Touch Type	Projected Capacitive Touch						
	Controller	USB signal						
	Input	Finger/Capacitive Touch Pen						
	Light Transmission	≥85%						
	Hardness	≥6H						
<b>Processor System</b>	CPU	Intel® 12/13th Generation Core / Pentium/ Celeron Desktop CPU						
	TDP	35W						
	Socket	LGA1700						
	Chipset	Q670						
	BIOS	AMI 256 Mbit SPI						
<b>Memory</b>	Socket	2 * Non-ECC SO-DIMM Slot, Dual Channel DDR4 up to 3200MHz						
	Max Capacity	64GB, Single Max. 32GB						
<b>Graphics</b>	Controller	Intel® UHD Graphics						
<b>Ethernet</b>	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)						
<b>Storage</b>	SATA	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						
	M.2	1 * M.2 Key-M (PCIe x4 Gen 4 + SATA3.0, NVMe/SATA SSD Auto Detect, 2242/2260/2280)						
<b>Expansion Slots</b>	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) 1 * M.2 Key-E (PCIe x1 Gen 3 + USB 2.0, 2230)						
<b>Front I/O</b>	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						
<b>Rear I/O</b>	Antenna	4 * Antenna hole						
	SIM	2 * Nano SIM card slots(SIM1/2)						
<b>Internal I/O</b>	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)						
<b>Power Supply</b>	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						
<b>OS Support</b>	Windows	Windows 10/11						
	Linux	Linux						
<b>Watchdog</b>	Output	System Reset						
	Interval	Programmable 1 ~ 255 sec						
<b>Mechanical</b>	Enclosure Material	Radiator: Aluminum alloy, Box: SGCC						
	Mounting	VESA, Embedded						
	Dimensions (L * W * H, Unit: mm)	321.9*260.5*95.7	380.1*304.1*95.7	420.3*269.7*95.7	414*346.5*95.7	485.7*306.3*95.7	484.6*332.5*95.7	560*344*95.7
	Weight	Net: 6.66Kg Total: 8.16Kg	Net: 8.05Kg Total: 9.55 Kg	Net: 7.95Kg Total: 9.45 Kg	Net: 8.8Kg Total: 10.6 Kg	Net: 8.65Kg Total: 10.45Kg	Net: 10.05Kg Total: 11.85 Kg	Net: 9.58Kg Total: 11.38Kg
<b>Environment</b>	Heat Dissipation System	Fanless Passive Cooling						
	Operating Temperature	-20~60°C	-20~60°C	-20~60°C	0~50°C	0~50°C	0~50°C	0~60°C
	Storage Temperature	-30~80°C	-20~70°C	-30~70°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)						
	Certification	CE/FCC, RoHS						

## Product Dimensions

A	System Dimension			Panel Mount							
	X1	Y1	Z1	X2	Y2	Z2	X3	Y3	Z3	F1	F2
12.1"	321.9	260.5	95.7	307	245.6	28	309.8	248.4	8	7.1	8.5
15.0"	380.1	304.1	95.7	364.2	288.2	28	367	291	8	7.1	8.5
15.6"	420.3	269.7	95.7	404.5	253.8	28	407.3	256.6	8	7.1	8.5
17.0"	414	346.5	95.7	398.2	330.6	28	401	333.4	8	7.1	8.5
18.5"	485.7	306.3	95.7	469.8	290.4	28	472.6	293.2	8	7.1	8.5
19.1"	484.6	332.5	95.7	468.7	316.6	28	471.5	319.4	8	7.1	8.5
21.5"	550	344	95.7	538.7	327.7	28	539.5	330.9	8	7.1	8.5

## Product I/O

