

IPC-221

Compact Industrial Computer System Supporting Intel® Core™ i 12th/13th/14th Gen Processor & Intel® Core™ Processor Series 2 (LGA 1700)

NEW



Features

- Supporting Intel® Core™ i 12th/13th/14th Gen Processor & Intel® Core™ Processor Series 2 (LGA 1700) with Intel® Q670E/H610E chipset
- 2 x independent displays
- 2 x GigaLan and up to 8 USB 3.2 Gen2
- 2 x RS-232/422/485
- 1 x NVMe M.2 (Q670E Only), 2 x 2.5" HDD/SSD, and 1 x mSATA
- Built-in TPM module (TPM 2.0)
- Built in 100–240VAC, 250W Adaptor

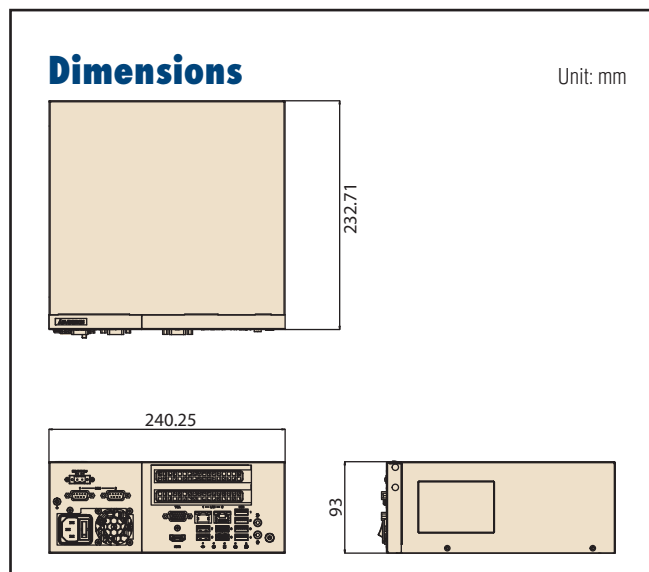


Specifications

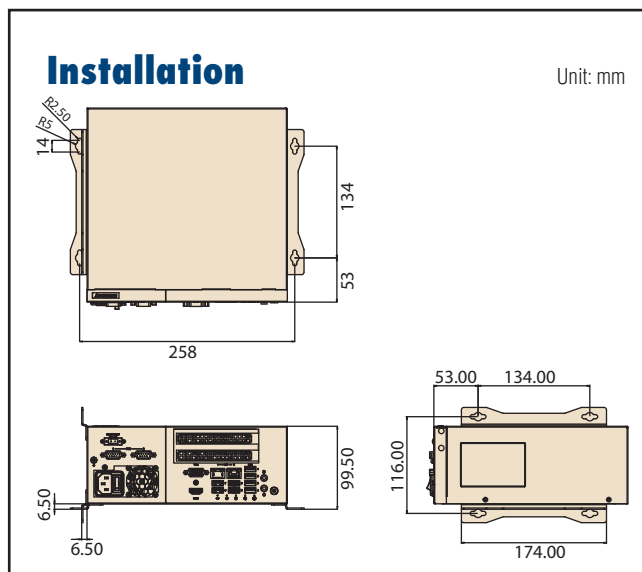
Intel® Core™ Processors Series 2 (Bartlett Lake-S)	CPU	251E	251TE	221E	221TE	211E	211TE	211EF	201E	201TE	300	300T									
	P-core Base Frequency	2.1 GHz	1.4 GHz	2.7 GHz	1.8 GHz	2.7 GHz	1.7 GHz	2.7 GHz	3.6 GHz	2.9 GHz	3.9 GHz	3.4 GHz									
	L3 Cache	36 MB	36 MB	24 MB	24 MB	20 MB	20 MB	20 MB	12 MB	12 MB	6 MB	6 MB									
	Cores	24	24	14	14	10	10	10	4	4	2	2									
	Processor Base Power	65W	45W	65W	45W	65W	45W	65W	60W	45W	46W	35W									
14th Generation Processors	CPU	i9-14900	i9-14900T	i7-14700	i7-14700T	i5-14500	i5-14500T	i5-14400	i5-14400T	i5-14400F	i3-14100	i3-14100T	i9-14901E	i9-14901TE	i7-14701E	i7-14701TE	i5-14501E	i5-14501TE	i5-14401E	i5-14401TE	
	P-core Base Frequency	2.0 GHz	1.1 GHz	2.1 GHz	1.3GHz	2.6 GHz	1.7 GHz	2.5 GHz	1.5 GHz	2.5 GHz	3.5 GHz	2.7 GHz	2.8 GHz	2.3 GHz	2.6 GHz	2.1 GHz	3.3 GHz	2.2 GHz	2.5 GHz	2 GHz	
	L3 Cache	36 MB	36 MB	33 MB	33 MB	24 MB	24 MB	20 MB	20 MB	20 MB	12 MB	12 MB	36 MB	36 MB	33 MB	33 MB	24 MB	24 MB	24 MB	24 MB	
	Cores	24	24	20	20	14	14	10	10	10	4	4	8	8	8	8	6	6	6	6	
	Processor Base Power	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	65 W	60 W	35 W	65 W	45 W	65 W	45 W	65 W	45 W	65 W	45 W	
13th Generation Processors	CPU	i9-13900(E)	i9-13900TE	i7-13700(E)	i7-13700TE	i5-13500(E)	i5-13500TE	i5-13400(E)	i3-13100(E)	i3-13100TE											
	P-core Base Frequency	2.0 GHz	1.1 GHz	2.1 GHz	1.4 GHz	2.5 GHz	1.6 GHz	2.5 GHz	3.4 GHz	2.5 GHz											
	L3 Cache	36 MB	36 MB	30 MB	30 MB	24 MB	24 MB	20MB	12 MB	12 MB											
	Cores	24	24	16	16	14	14	10	4	4											
	Processor Base Power	65 W	35 W	65 W	35 W	65 W	35 W	65W	60 W	35 W											
12th Generation Processors	CPU	i9-12900(E)	i9-12900TE	i7-12700(E)	i7-12700TE	i5-12500(E)	i5-12400	i5-12500TE	i3-12100(E)	i3-12100TE	Pentium G7400E	Pentium G6900E	Celeron G6900E	Celeron G6900TE							
	P-core Base Frequency	2.4 GHz	1.1 GHz	2.1 GHz	1.4 GHz	3.0 GHz	2.5 GHz	1.9 GHz	3.3 GHz	2.1 GHz	3.6 GHz	3.0 GHz	3.0 GHz								
	L3 Cache	30 MB	30 MB	25 MB	25 MB	18 MB	18 MB	18 MB	12 MB	12 MB	6 MB	6 MB	4 MB								
	Cores	16	16	12	12	6	6	6	4	4	2	2	2								
	Processor Base Power	65 W	35 W	65 W	35 W	65 W	65 W	35 W	60 W	35 W	46 W	35 W	46 W								
Processor System	Socket	LGA 1700																			
	Chipset	Q670E / H610E																			
	BIOS	AMI 256Mbit SPI Flash																			
Memory	Technology	Dual-channel DDR5 4800 MHz																			
	Socket	2 x 262 pin DDR5 SODIMM (Up to 32GB per socket)																			
	Maximum Capacity	64GB																			
	Chipset	PCE-2133: Q670E PCE-2033: H610E																			
Display	VGA	Up to 1920 x 1080 @ 60Hz																			
	HDMI	Up to 3840 x 2160 @ 60Hz																			
Ethernet	Controller	PCE-2133 LAN1: Intel® I219LM, LAN2: Intel® I226V PCE-2033 LAN1: Intel® I219V, LAN2: Intel® I226V																			
	Interface	LAN1: 10/100/1000 Mbps; LAN2: 10/100/1000/2500 Mbps																			
	Connector	2 x RJ45																			
Storage	NVMe M.2	1 (PCIe x4 M-key 2280 type, Q670E Only)																			
	HDD/SSD	2 x 2.5" HDD/SSD (Max 15mm Height each)																			
	mSATA	1																			
	RAID	0/1 (Q670E Only)																			
I/O	USB	Q670E: 8 x USB 3.2 Gen2 H610E: 4 x USB 3.2 Gen1 + 4 USB 2.0																			
	Serial Port	2 x RS-232/422/485 support auto flow control																			
	Audio	2 (Line-out, Mic-in)																			
	Expansion	Expansion slots	One PCIe x16 One PCIe x4																		
Support card size		111.15mm(Full height) x 168mm (Half length)																			
Watchdog Timer	Output	System reset																			
	Interval	Programmable 1 – 255 sec/min																			
Environment	Operating Temperature	0 – 40 °C										Non-operating -40 – 85 °C									
	Humidity	95% @ 40 °C (non-condensing)																			
	Vibration	With SSD: 2 Grms @ 5 – 500 Hz, random, 1 hr/axis With 2.5" HDD: 0.5Grms @ 5 – 500 Hz, random, 1 hr/axis										2G									
	Shock	With SSD: 10G, IEC-68-2-27, half-sine wave, 11 ms duration																			

Specifications (Cont.)

Mechanical	Dimensions (W x D x H)	240 x 233 x 93 mm
	Weight	2.5 kg
	Installation	Desktop/wall mount
Certifications	EMC	CE/FCC Class A, CCC
	Safety	CCC



Front View



Rear View



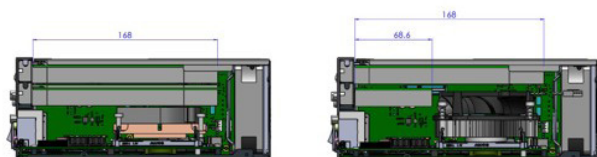
Ordering Information

Part Number	Compatible Mother Board	PCIe x16	PCIe x4	PCI	Gbe	HDD/SSD	COM	Internal USB (2.0 Type A)
IPC-221-00A1	PCE-2133	1 (Gen4)	1 (Gen3)	0	2	2 x 2.5"	2	1
	PCE-2033	1 (Gen4)	1 (Gen3)	0	2	2 x 2.5"	2	1

Part Number	Chipset	TPM 2.0	USB 3.2	USB 2.0	Internal USB 2.0 (Box header)	NVMe M.2	miniPCIe
PCE-2133-00A1	Q670E	TPM 2.0	8	0	2	1	1 (mSATA, PCIe, USB)
PCE-2033-00A1	H610E	TPM 2.0	4	4	0	0	1 (mSATA Only)

Optional Accessories

Part Number	Description
1970006211S001	1U CPU Cooler LGA1700 65W 92x89x26.2
1970005354T001	1.5U CPU Cooler LGA1700 65W 110x110x45.4
1702002600	Power cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D
1700022940-01	Power cord PSE, 3-pin, 7A, 125V, 3 m, DAC-ST01
1702002605	Power cord (EU) 2-pin, 10/16A, 220V, 1.83 M, 90 D



Note: Please select 1U Cooler if need to install 2 expansion cards

Embedded OS

PN	Description
20706WLH1S0050	img W11 2024HL LTSC PCE-2133 64b
20706WL1S0050	img W11 2024VL LTSC PCE-2133 64b
20706WLE1S0050	img W11 2024EL LTSC PCE-2133 64b
20706WLH1S0049	img W11 2024HL LTSC PCE-2033 64b
20706WL1S0049	img W11 2024VL LTSC PCE-2033 64b
20706WLE1S0049	img W11 2024EL LTSC PCE-2033 64b
20706WX1HS0053	img W10 21HL PCE-2133 64b 21H2 ENU
20706WX1VS0053	img W10 21VL PCE-2133 64b 21H2 ENU
20706WX1ES0053	img W10 21EL PCE-2133 64b 21H2 ENU
20706WX1HS0056	img W10 21HL PCE-2033 64b 21H2 ENU
20706WX1VS0056	img W10 21VL PCE-2033 64b 21H2 ENU
20706WX1ES0056	img W10 21EL PCE-2033 64b 21H2 ENU
20706U22DS0007	img UbuntuD PCE-2133 64b 22.04 ENU
20706U22DS0005	img UbuntuD PCE-2033 64b 22.04 ENU