

IPC-221

Compact Industrial Computer System with 12th/13th/14th Gen Intel® Core™ i CPU Socket (LGA 1700)

NEW



Features

- Intel® 12th/13th/14th Gen Core™ i CPU socket-type (LGA1700) 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

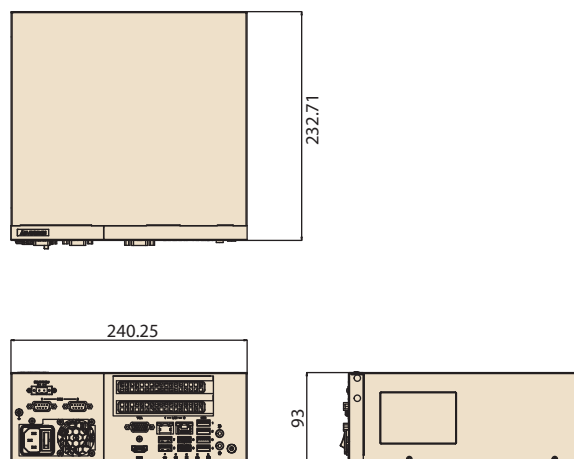


Specifications

	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	300	300T	
14th Generation Processors	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	3.9 GHz	3.4 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	6 MB	6MB	
	Cores	24	24	20	20	14	14	10	10	10	4	4	8	8	8	8	6	6	6	6	2	2	
	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	65 W	35 W	
	CPU	I9-13900(E)		I9-13900TE		I7-13700(E)		I7-13700T(E)		I5-13500(E)		I5-13500T(E)		I5-13400(E)		I3-13100(E)		I3-13100T(E)					
13th Generation Processors	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 G7400TE	Celeron G6900E
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		4 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	I/O Module	Support Advantech i-Door																					
	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												Non-operating									
	Temperature	0 – 40 °C												-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																					
	Shock	With SSD: 10G, IEC-68-2-27, half-sine wave, 11 ms duration																					
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																					

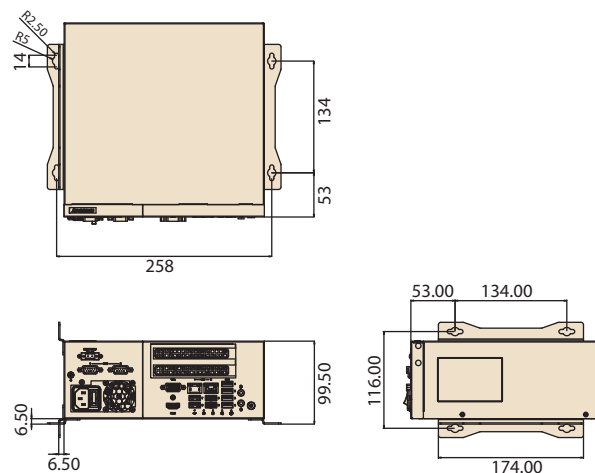
Dimensions

Unit: mm



Installation

Unit: mm



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	2
	PCE-2033	1 (Gen4)	1 (Gen3)	0	2	2 x 2.5"	2	2

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)

PCE-2033/2133 Packing List

Item	Description
PCE-2033/2133	12th/13th/14th Gen Intel® Core™ i CPU (LGA 1700) CPU board
1950023035N022	Front IO Panel
-	Startup Manual for PCE-2033/2133

Optional Accessories

Part Number	Description
1970005354T001	CPU Cooler LGA1700 S-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

Embedded OS

PN	Description
20706WLH1S0050	img W11 2024HL LTSC PCE-2133 64b
20706WLV1S0050	img W11 2024VL LTSC PCE-2133 64b
20706WLE1S0050	img W11 2024EL LTSC PCE-2133 64b
20706WLH1S0049	img W11 2024HL LTSC PCE-2033 64b
20706WLV1S0049	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