

IPC-242

Compact size IPC Supporting Intel® Core™ i 12th/13th/14th Gen Processor & Intel® Core™ Processor Series 2 (LGA 1700) with Built-in AC PSU

NEW



Features

- Supporting Intel® Core™ i 12th/13th/14th Gen Processor & Intel® Core™ Processor Series 2 (LGA 1700) with Intel® Q670E/H610E chipset
- Compact design fit in small cabinet or limited space
- 3 Independent Display (third display output via optional cable)
- 4 Expansion slots (PCIe/ PCI)
- Rich I/O: 2 x GbE, 6 x USB3.2, 1x NVMe M.2, 2 x SATAIII, 2 x RS-232/422/485 Serial Ports, 1 x Internal USB 2.0
- 1 x Swappable HDD/SSD Tray
- 250W Flex ATX Power Support
- Support Power Output 5V/12V (max. 2A)
- Dimension: 333(W) x 269.2(D) x 88(H) mm

Specifications

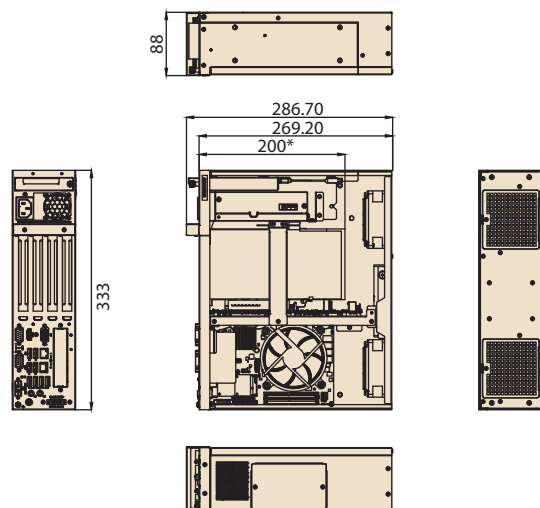
Intel® Core™ Processors Series 2 (Bartlett Lake-S)	CPU	251E	251TE	221E	221TE	211E	211TE	211EF	201E	201TE	300	300T									
	P-core Base Frequency	2.1 GHz	1.4 GHz	2.7 GHz	1.8 GHz	2.7 GHz	1.7 GHz	2.7 GHz	3.6 GHz	2.9 GHz	3.9 GHz	3.4 GHz									
	L3 Cache	36 MB	36 MB	24 MB	24 MB	20 MB	20 MB	20 MB	12 MB	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)	I7-13700(E)	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	2.1 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	20 MB	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	65 W	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	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	2.4 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	4 MB							
	Cores	16	16	12	12	6	6	6	4	4	2	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	35 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																			
	DP	Up to 4096 x 2160 @ 60Hz via optional cable																			
	DVI	Up to 1920 x 1080 @ 60Hz via optional cable																			
	Multiple Display	3 x independent displays (third display output via optional cable)																			
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 (1 x external, 1 x internal, 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																			
	Add-On-Card Module					PCIex16								PCIex4				PCI			
		IPC-242-00A1				1								3				0			
		IPC-242-01A1				1								1				2			

Specifications (Cont.)

LED and Switch	Button	Power	
	LED	HDD Disk	
Power	Output Rating	AC 250W, ATX	
	Input Voltage	100-240V~/3.5A, 47-63Hz	
	DC Output Voltage	5V/12V (Max 2A Each)	
	Remote Power Switch	2-Pin Remote Power Switch Control	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec/min	
Environment		Operating	Non-operating
	Temperature	0 ~ 45 °C	-40 ~ 85 °C
	Humidity	95% @ 40 °C (non-condensing)	
	Vibration	With SSD: 1 Gms @ 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	
Mechanical	Dimensions (W x D x H)	333 x 269.2 x 88 mm (13.11" x 10.55" x 3.46")	
	Weight	4.2kg	
	Installation	Table/wall mount	
Certifications	EMC	CE/FCC Class A, CCC	
	Safety	UL, CCC	

Dimensions

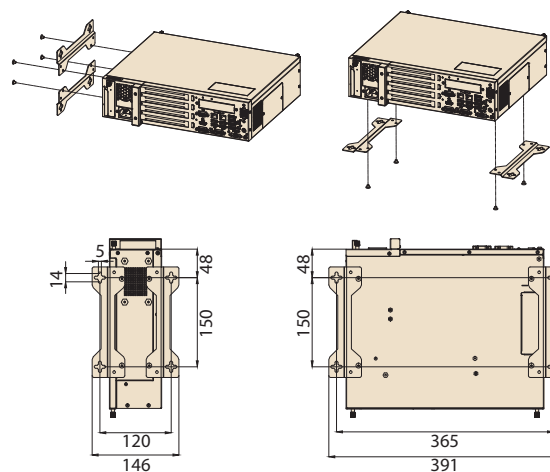
Unit: mm



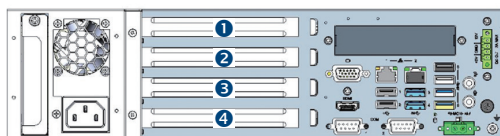
* Maximum card dimension : 111(H) x 200(L) mm

Installation

Unit: mm



Front View



IPC-242-00A1
IPC-242-01A1

Expansion Slot Order	IPC-242-00A1	IPC-242-01A1
1	PCIex4	PCI
2	PCIex16	PCI
3	PCIex4	PCIex16
4	PCIex4	PCIex4

Ordering Information

Part Number	Compatible Mother Board	PCIe x16	PCIe x4	PCI	HDD/SSD	Power	Internal USB (2.0 Type A)
IPC-242-00A1	PCE-2133-00A1	1	3	0	2 x 2.5" (1 x internal, 1 x swappable)	AC 100-240V, 250W	1
IPC-242-01A1	PCE-2133-00A1	1	1	2			1
IPC-242-01A1	PCE-2033-00A1	1	1	2			1

Part number	Chipset	Intel CPU Support	USB 3.2	USB 2.0	GbE	NVMe M.2	miniPCIe	COM
PCE-2133-00A1	Q670E	12th/13th/14th Gen	8	0	2	1 (PCIe x4 M Key)	1 (mSATA, PCIe, USB)	2
PCE-2033-00A1	H610E	12th/13th/14th Gen	4	4	2	0	1 (mSATA Only)	2

IPC-242 Packing List

Item	Description
IPC-242	Compact Industrial Computer Chassis
2001024200	User Manual for IPC-242
1652002205	Remote SW 2 pin Phoenix connector
1652005685	4-Pin Plug in 3.81mm DC output connector
1700018804	M CABLE SATA 7P/SATA 7P 90/90 25CM
1700007352	SATA POWER CABLE 15P/15CM
1960070543T007	MOUNTING BKT x2

PCE-2033/2133 Packing List

Item	Description
PCE-2033/2133	12/13/14th Gen Intel® Core™ i CPU (LGA 1700) CPU board 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
1960097668N001	Vertical Rear Mounting BKT_UP
1960097669N001	Vertical Rear Mounting BKT_DOWN
98R12420000	HDMI port kit iDoor
98R12420010	DVI port kit iDoor
98R12420020	Display port kit iDoor

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

iDoor Module

P/N	Description	Signal Interface
MOS-1110Y-0101E	Isolated 16 DI / 8 DO, 1-Ch, DB37, PCIe I/F	PCIe
MOS-1120Y-0202E	Isolated RS-232, 2-Ports, DB9, PCIe I/F	PCIe
MOS-1120Y-1402E	Non-Isolated RS-232, 4-Ports, DB9, PCIe I/F	PCIe
MOS-1121Y-0202E	Isolated RS-422/485, 2-Ports, DB9, PCIe I/F	PCIe
MOS-1121Y-1402E	Non-Isolated RS-422/485, 4-Ports, DB9, PCIe I/F	PCIe
MOS-1130Y-0201E	Isolated CANBus, 2-Ch, DB9, PCIe I/F	PCIe
MOS-2110Z-1201E	USB Port iDoor Module	PCIe
MOS-2120-Z1101E	Giga LAN Ethernet iDoor Module	PCIe
MOS-2220-X1101E	Parallel Port iDoor Module	USB
MOS-2220-Z1101E	High Speed Serial COM iDoor Module	USB
MOS-2230-Z1201E	CANBus iDoor Module	USB
PCM-26D2CA-BE	SJA1000 CANBus, DB9 x 2	PCIe
PCM-26D2CA-CE	USB CANBus, DB9 x 2	USB
PCM-24D2R2-BE	2-Port Isolated RS-232 mPCIe, DB9 x 2	USB
PCM-24D2R4-BE	2-Port Isolated RS-422/485 mPCIe, DB9 x 2	USB
PCM-24D4R2-BE	4-Port Non-Isolated RS-232 mPCIe, DB37 x 1	USB
PCM-24D4R4-BE	4-Port Non-Isolated RS-422/485 mPCIe, DB37 x 1	USB
PCM-27D24DI-AE	24-Channels Isolated Digital I/O with counter mPCIe, DB37	PCIe
PCM-24S34G-CE	EG-25G LTE/HSPA+/GPRS, mPCIe, Ant	PCIe
PCM-24S2WF-CE	802.11 a/b/g/n/ac 2T2R w/BT4.1, Intel AC9260	WiFi: PCI-E BT: USB
PCM-24R2GL-AE	2 Port Giga LAN Intel i350 PCIe mini card	PCIe
PCM-24R1TP-BE	Intel i225, 2.5Gb/s, IEEE 1588, TSN, RJ45*1	PCIe
PCM-23U1DG-CE	USB Slot w/ Lock for USB Dongle	USB
PCM-2300MR-AE	MR4A16B, MRAM, 2 MByte, mPCIe	PCIe
PCM-2300MR-BE	MR4A16B MRAM, 4MByte, Lattice	PCIe
PCM-26R2PN	2Port, PROFIBET, Hilscher FieldBus mPCIe	PCIe
PCM-26R2EC-MAE	2Port, EtherCAT, Hilscher FieldBus mPCIe, Master	PCIe
PCM-26R2EC-SAE	2Port, EtherCAT, Hilscher FieldBus mPCIe, Slave	PCIe

Note: The PCM series module requires a bracket (P/N : 1960065854N001) that must be ordered separately.