

IPC-220 / 240

Compact Industrial Computer System with 15th Gen Intel® Core™ Ultra 9/7/5 (LGA 1851)

NEW



Features

- Intel® 15th Gen Core™ Ultra CPU socket-type (LGA1851) with Intel® Q870/H670 chipset
- 2 x GigaLan and up to 8 USB 3.2 Gen2
- 2 x RS-232/422/485 and 2 x RS-232
- 1 x NVMe M.2 (Q870 Only), 2 x 2.5" HDD/SSD, and 1 x mSATA
- Built-in TPM module (TPM 2.0)
- 19 ~ 24 V_{DC} input power range
- Support Power Out 12V/5V - 2A
- Supports Advantech i-Door
- Versatile LED for system status and alarm



Specifications

15th Generation Processors	CPU	Ultra 9 285	Ultra 9 285T	Ultra 7 265	Ultra 7 265T	Ultra 5 245	Ultra 5 245T	Ultra 5 225	Ultra 5 225T
	P-core Base Frequency	2.5GHz	1.4GHz	2.5GHz	1.5GHz	3.5GHz	2.2GHz	3.3GHz	2.5GHz
	L3 Cache	36MB	36MB	30MB	30MB	24MB	24MB	20MB	20MB
	Cores	24	24	20	20	14	14	10	10
	Processor Base Power	65W	35W	65W	35W	65W	35W	65W	35W
Processor System	Socket	LGA 1851							
	Chipset	Q870 / H670							
	BIOS	AMI 256Mbit SPI Flash							
Memory	Technology	Dual-channel DDR5 6400 MHz							
	Socket	2 x 262 pin DDR5 SODIMM (Up to 48GB per socket)							
	Maximum Capacity	96GB							
	Chipset	PCE-2134: Q870 PCE-2034: H810							
Display	VGA	Up to 1920 x 1080 @ 60Hz							
	HDMI	Up to 3840 x 2160 @ 60Hz							
Ethernet	Controller	PCE-2134 LAN1: Intel® I219LM, LAN2: Intel® I226V PCE-2034 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 Gen4 M-key 2280 type, Q870 Only)							
	HDD/SSD	2 x 2.5" HDD/SSD (Max 15mm Height each)							
	mSATA	1							
	RAID	0/1							
I/O	USB	Q870: 8 x USB 3.2 Gen2 H810: 2 x USB3.2 Gen1, 2 x USB3.2 Gen2, 4 x USB2.0							
	Serial Port	2 x RS-232/422/485 support auto flow control, 2 x RS-232							
	Audio	2 (Line-out, Mic-in)							
Expansion	I/O Module	Support Advantech i-Door							
	Expansion slots		PCIex16		PCIex4		PCI		
		IPC-220-20B1	1		1		0		
		IPC-240-20B1	1		3		0		
		IPC-240-21B2	1		1		2		
	Support card size	111.15mm(Full height) x 179mm (Half length)							
LED and Switch	Button	Power							
	LED	CPU FAN Alarm, System Temp. Alarm, Watch Dog, CPU Temp. Alarm, Power, HDD Disk							
Power	Type	ATX(Default) / AT							
	Input Voltage	19 ~ 24 V _{DC} , 8A ~ 6.5A							
	Remote Power Switch	Support Remote Power Switch							
	Power consumption	150W (Without Add on card)-230W (With Add on card)							
Watchdog Timer	Output	System reset							
	Interval	Programmable 1 ~ 255 sec/min							

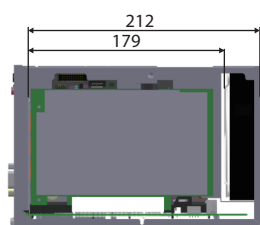
Specifications (Cont.)

Environment	Operating	
	Temperature	0 ~ 45 °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)	IPC-220: 155 x 230 x 150 mm (6.1" x 9.05" x 5.9") IPC-240: 195 x 230 x 150 mm (7.68" x 9.05" x 5.9")
	Weight	IPC-220: 3.1kg IPC-240: 3.3kg
	Installation	Desktop/wall mount
Certifications	EMC	CE/FCC Class A, CCC
	Safety	UL, CCC

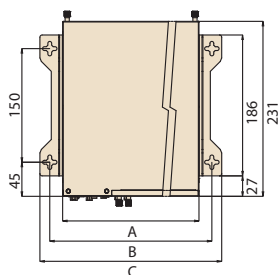
Dimensions

Unit: mm

Add on card Max. Size: 111(H) x 179(D) mm



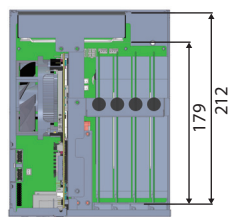
Side View



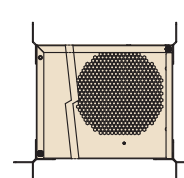
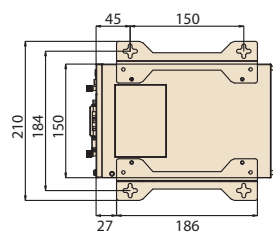
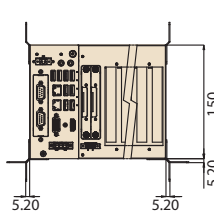
Dimension (mm)	IPC-220-20B1	IPC-240-20B1	IPC-240-21B2
A	155	195	195
B	189	229	229
C	215	255	255

IPC-220

IPC-240



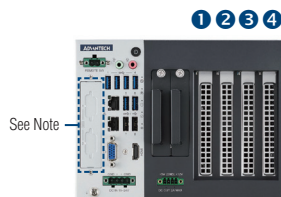
Top View



Front View



IPC-220-20B1



IPC-240-20B1
IPC-240-21B2

Expansion slot order	1	2	3	4
IPC-220-20B1	PCIe x16	PCIe x4	-	-
IPC-240-20B1	PCIe x16	PCIe x4	PCIe x4	PCIe x4
IPC-240-21B2	PCIe x16	PCI	PCIe x4	PCI

Note: 2-port D-sub 9-pin COM cable to be assembled upon request

Ordering Information

Part Number	Compatible Mother Board	PCIe x16	PCIe x4	PCI	Gbe	HDD/SSD	COM	Internal USB (2.0 Type A)
IPC-220-20B1	PCE-2134	1 (Gen4)	1 (Gen3)	0	2	2 x 2.5"	2	2
	PCE-2034	1 (Gen4)	1 (Gen3)	0	2	2 x 2.5"	2	2
IPC-240-20B1	PCE-2134	1 (Gen4)	3 (Gen3)	0	2	2 x 2.5"	2	2
	PCE-2134	1 (Gen4)	1 (Gen3)	2	2	2 x 2.5"	2	2
IPC-240-21B2	PCE-2034	1 (Gen4)	1 (Gen3)	2	2	2 x 2.5"	2	2

Part Number	Chipset	TPM 2.0	USB 3.2	USB 2.0	NVMe M.2	miniPCIe
PCE-2134-00A1	Q870	TPM 2.0	8	0	1	1 (mSATA, PCIe, USB)
PCE-2034-00A1	H810	TPM 2.0	4	4	0	1 (mSATA, PCIe)

IPC-220/240 Packing List

Item	Description
IPC-220/240	Compact Industrial Computer Chassis
1960070543T005	Mounting Bracket
2001022010	User Manual for IPC-220/240
1652003234	4-pin Phoenix power connector
1652002205	Remote SW 2 pin Phoenix connector
1652007894-01	4-Pin Plug in 3.5mm 90D(F) DC output connector
1960068789N105	IDOOR COMX2 COVER FOR IPC-240 877C
1700024926-01	A CABLE 1*2P-2.0/PLUG-IN 2P-5.08 16cm
1700019968	2-port D-sub 9-pin COM cable
1960068789N105	IDOOR COM x2 COVER

Note: 2-port D-sub 9-pin COM cable to be assembled upon request

PCE-2034/2134 Packing List

Item	Description
PCE-2034/2134	15th Gen Intel® Core™ Ultra (LGA 1851) CPU board
1950023035N022	Front IO Panel
-	Startup Manual for PCE-2034/2134

Optional Accessories

Part Number	Description
96PSA-A230W24P4-3	ADP A/D 100-240V 230W 24V TB 4P
96PSA-A150W19P4-4	Adaptor A/D 100-240V 150W 19V TB 4P
96PSD-A240W24-MN	DIN RAIL Adapter A/D 100-240V 240W 24V
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
1700024858-01	Power cable for add-on card, 4P(2x2)
170304015K	Power cable for add-on card, 4P(1x4)
1700031170-01	4-PIN DC to DC Power cable, DIN Rail Adapter, 150cm
1700029720-01	Power Cord (USA), 3 Pin, DIN Rail Adapter, 183cm
1700030520-01	Power Cord (CN), 3 Pin, DIN Rail Adapter, 150cm

Supported 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-BE	MR4A16B MRAM, 4MByte, Lattice	PCIe
PCM-26R2PN	2Port, PROFINET, 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.