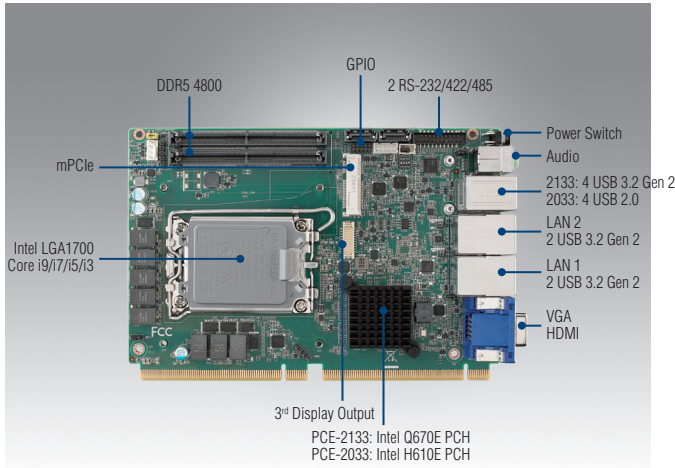


PCE-2033 / 2133

LGA1700 12th Generation Intel® Core™ i9/i7/i5/i3 & Pentium®/Celeron® CPU Board for IPC-2 Series Chassis



Features

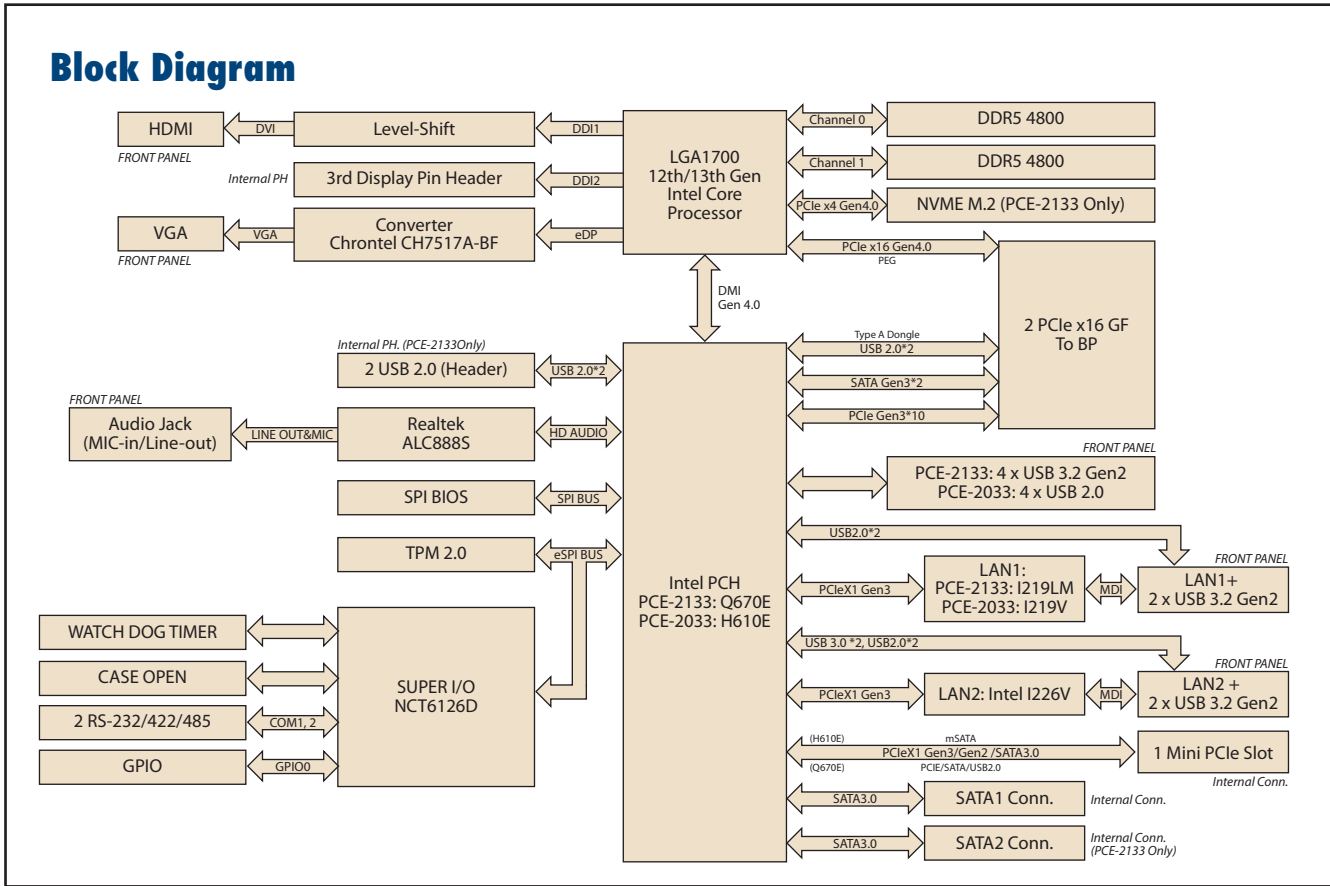
- Intel® 12th Gen Core™ i CPU socket-type (LGA1700) with Intel® Q670E/H610E chipset
- 3 x independent displays (third display output via optional cable)
- 2 x GigaLan and up to 8 USB 3.2 Gen2
- 2 x RS-232/422/485
- 1 x NVMe M.2 (PCE-2133 Only), 2 x 2.5" HDD/SSD, and 1 x mSATA

Quiet Specifications



12th Generation Processor	CPU	I9-12900E	I9-12900TE	I7-12700E	I7-12700TE	I5-12500E	I5-12500TE	I3-12100E	I3-12100TE	Pentium G7400TE	Pentium G7400TE	Celeron G6900E	Celeron G6900TE	
	Base Freq.	2.4GHz	2.3GHz	2.1GHz	1.4GHz	2.9GHz	1.9GHz	3.2GHz	2.1GHz	3.6GHz	3.0GHz	3.0GHz	2.4GHz	
	L3 Cache	30MB	30MB	25MB	25MB	18MB	18MB	12MB	12MB	6MB	6MB	4MB	4MB	
	Cores	16	16	12	12	6	6	4	4	2	2	2	2	
	TDP	65W	35W	65W	35W	65W	35W	65W	35W	46W	35W	46W	35W	
	Socket	LGA1700												
	Chipset	PCE-2133: Q670E PCE-2033: H610E												
BIOS	AMI 256Mbit SPI													
Memory	Technology	Dual Channel (Non-ECC) DDR5 4800												
	Max. Capacity	64GB/ 32GB per DIMM												
	Socket	2 x 262 pin DDR5 SODIMM												
Graphics	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	Interface	LAN1: 10/100/1000 Mbps; LAN2: 10/100/1000/2500 Mbps												
	Controller	PCE-2133 LAN1: Intel® I219LM, LAN2: Intel® I226V PCE-2033 LAN1: Intel® I219V, LAN2: Intel® I226V												
	Connector	2 x RJ-45												
SATA	Max. Data Transfer Rate	600MB/s												
	Channel	2												
	RAID	0/1/5/10 (PCE-2133 Only)												
Front I/O	VGA	1												
	HDMI	1												
	Ethernet	2												
	USB	PCE-2133: 8 x USB 3.2 Gen2 PCE-2033: 4 x USB 3.2 Gen2 + 4 USB 2.0												
	Audio	2 (Line-out, Mic-in)												
Internal Connectors	USB	2 x USB 2.0 (Pin header, PCE-2133 Only)												
	Serial	2 x RS-232/422/485 support auto flow control												
	M.2	1 (PCIe x4 M-key 2280 type, PCE-2133 Only)												
	mPCIe	1, PCE-2133 supports PCIe, mSATA, and USB signal 1, PCE-2033 supports only mSATA signal												
	GPIO	8-bit												
Watchdog Timer	Output	System reset												
	Interval	Programmable 1 ~ 255 sec												
Environment	Temperature	Operating 0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and system thermal solution							Non-Operating -40 ~ 85 °C (-40 ~ 185 °F)					
	Humidity	40 °C @ 95% RH Non-condensing							60 °C @ 95% RH Non-condensing					
Physical Characteristics	Dimensions (L x H)	188.6 x 127mm												

Block Diagram



Ordering Information

CPU Board Part number	Intel CPU Support	Chipset	USB 3.2	USB 2.0	GbE	NVMe M.2	miniPCIe	COM
PCE-2133-00A1	12th/13th Gen	Q670E	8	0	2	1 (PCIe x4 M Key)	1 (Full-Size)	2
PCE-2033-00A1	12th/13th Gen	H610E	4	4	2	0	1 (mSATA Only)	2
PCE-2132-00A1	10th Gen	Q470E	6	2	2	1 (PCIe x4 M Key)	1 (Full-Size)	2
PCE-2032-00A1	10th Gen	H420E	6	2	2	0	1 (mSATA Only)	2

Chassis Part Number	Compatible CPU Board Model	PCIe x16	PCIe x4	PCI	HDD/SSD	Power	Internal USB (2.0 Type A)	ErP Compliance
IPC-220-20A1	PCE-2132 / PCE-2133	1	1	0	2 x 2.5"	19-24 V _{DC}	2	No
IPC-240-20A1	PCE-2032 / PCE-2033	1	1	0	2 x 2.5"	19-24 V _{DC}	2	No
IPC-240-21A1	PCE-2132 / PCE-2133	1	3	0	2 x 2.5"	19-24 V _{DC}	2	No
IPC-220-20B1	PCE-2132 / PCE-2133	1	1	2	2 x 2.5"	19-24 V _{DC}	2	No
IPC-240-20B1	PCE-2032 / PCE-2033	1	1	0	2 x 2.5"	19-24 V _{DC}	2	Yes
IPC-240-20B1	PCE-2132 / PCE-2133	1	3	0	2 x 2.5"	19-24 V _{DC}	2	Yes
IPC-240-21B1	PCE-2132 / PCE-2133	1	1	2	2 x 2.5"	19-24 V _{DC}	2	Yes
IPC-240-21B1	PCE-2032 / PCE-2033	1	1	2	2 x 2.5"	19-24 V _{DC}	2	Yes

Packing List

Item	Description
PCE-2033/2133	12th/13th Gen Intel® Core™ i CPU (LGA1700) CPU board
1950023035N021	Front IO Panel
-	Startup Manual for PCE-2033/2133

Embedded OS

Item	Description
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Optional Accessories

Part Number	Description
1970005354T001	CPU Cooler LGA1700 S-65W 110x110x45.4
98R12200010	Display port kit iDoor
98R12200030	HDMI port kit iDoor
98R12200040	DVI port kit iDoor