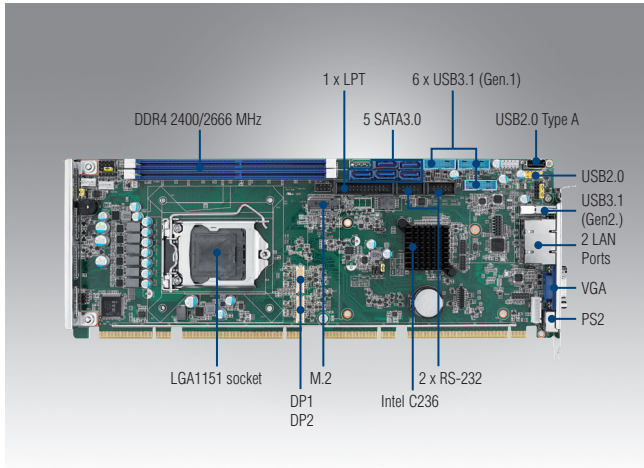


# PCE-7131

## LGA1151 8th and 9th Generation Intel® Xeon® E/Core™ i7/i5/i3/Pentium® LGA1151 System Host Board with DDR4, SATA 3.0, USB 3.1, M.2, Dual GbE, and Triple Displays



### Features

- Intel® Xeon® E Family/Core™ i7/i5/i3 LGA1151 processor with C246 chipset
- Up to 32 GB of dual-channel (non-ECC) DDR4 2400/2666 MHz
- PCIe 3.0, M.2, USB 3.1, SATA 3.0, and SW Raid 0, 1, 5, 10
- Supports VGA and 2 x DVI-D/DP display (with optional cable)
- Supports out-of-band remote management with AMT
- Supports Advantech's LPC modules, SUSIAccess, and embedded software APIs

Note: Intel 8th and 9th generation processors only support Windows 10 (64-bit) (RS5 version)

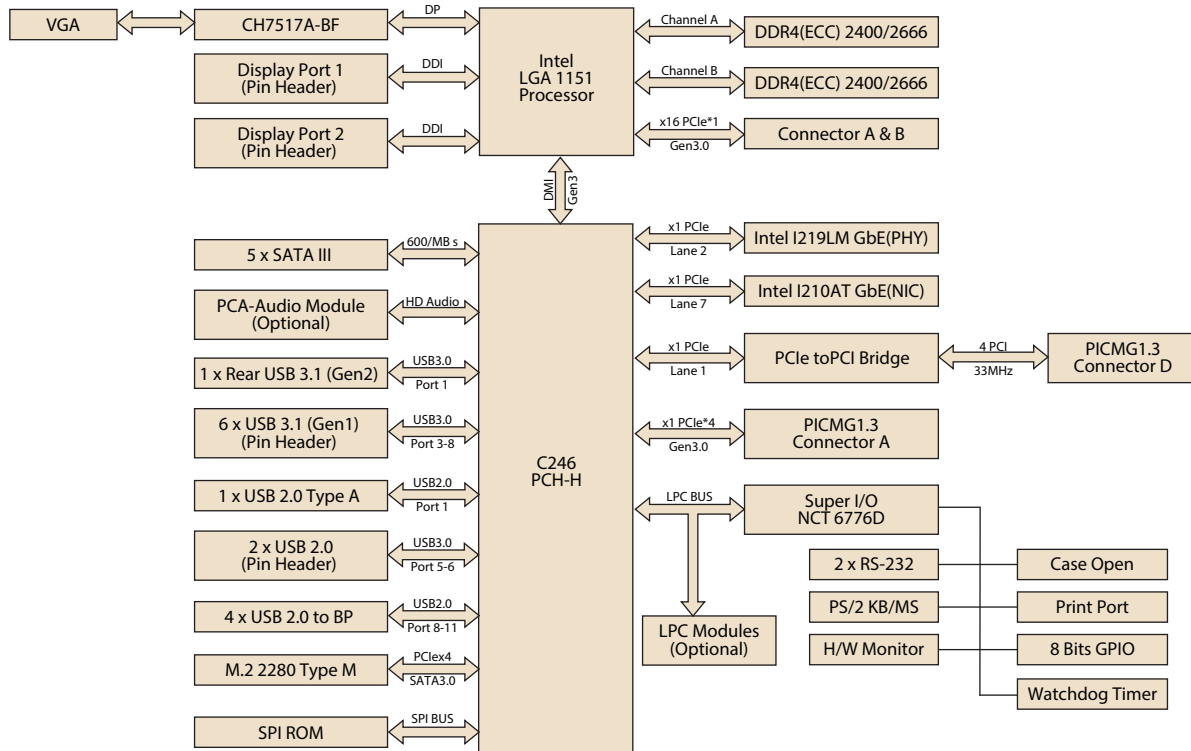
Quiet

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### Specifications

Processor System	CPU	i7-9700E	i7-9700TE	i7-8700	i7-8700T	i5-9500E	i5-9500TE	i5-8500	i5-8500T	i3-9100E	i3-9100TE	i3-8100	i3-8100T	G5400	G5400T	G4900	G4900T	Xeon E-2278GE	Xeon E-2278GEL	Xeon E-2226GE	Xeon E-2176G	Xeon E-2124G		
	Speed	2.6GHz	1.8 GHz	3.2 GHz	2.4 GHz	3.0 GHz	2.2 GHz	3.0 GHz	2.1 GHz	3.1 GHz	2.2 GHz	3.6 GHz	3.1 GHz	3.7 GHz	3.1 GHz	3.1 GHz	2.9 GHz	3.3 GHz	3.3 GHz	2.0 GHz	3.4 GHz	3.7 GHz	3.4 GHz	
	L3 Cache	12 MB	12 MB	12 MB	12 MB	9 MB	9 MB	9 MB	9 MB	6 MB	6 MB	6 MB	6 MB	4 MB	4 MB	2 MB	2 MB	2 MB	16M	16M	12M	12M	8M	
	Cores	8	8	6	6	6	6	6	6	4	4	4	4	2	2	2	2	8	8	6	6	4		
	TDP	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	58 W	35 W	54 W	35 W	80W	35W	80W	80W	71W		
	SKU/Chipset	Intel® C246																						
	BIOS	AMI® SPI Flash 256 Mbit																						
	Bus	PCI-Express	1 x PCIe x16/2 x PCIe x8 and 1 x PCIe x4 to backplane																					
		PCI	4 x PCI master to backplane, 32-bit, 33 MHz																					
	Memory	Technology	Dual-channel (non-ECC) U-DIMM DDR4 2400/2666 MHz (supports x8 DDR4 1024 M) (Note: Intel ECC-supported processor must be selected to enable ECC function)																					
Max. Capacity		32 GB (16 GB per DIMM)																						
Socket		2 x DDR4 288-pin DIMM																						
Graphics	Controller	Chipset integrated with Intel® HD Graphics																						
	VRAM	Shared system memory is subject to OS																						
	VGA	Supports resolutions of up to 1920 x 1200 pixel @ 60 MHz																						
	DVI-D	Supports resolutions of up to 1920 x 1200 pixel @ 60 MHz																						
	Display Port	Supports resolutions of up to 1920 x 1080 pixel @ 60 Hz																						
Ethernet	Triple Display	VGA+DP/DVI-D+DP/DVI-D																						
	Interface	10/100/1000 Mbps																						
	Controller	LAN 1: Intel® I219-LM LAN 2: Intel® I210-AT																						
Rear I/O	Connector with LED	2 x RJ45																						
	USB 3.1 Gen2	1																						
	Ethernet	2																						
	VGA	1																						
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)																						
Internal Connector	USB	7 x USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane) 4 x USB 3.0 (pin header)																						
	SATA (SW Raid 0,1,5,10)	5																						
	M.2 (2280 Type M)	1 (support SATA3.0 and PCIe interface)																						
	DP/DVI-D	2 (Pin header)																						
	COM	2																						
	Parallel	1																						
	GPIO	8bit																						
Watchdog Timer	Output	System reset																						
	Interval	Programmable 1-255 sec																						
Miscellaneous	Audio	Intel® High Definition audio interface (requires audio extension module PCA-AUDIO-HDB1E)																						
Power Requirement	Test Environment	i7-8700, 3.2 GHz, with 2 x 8-GB DDR4 2400																						
	Voltage	+12V										+5V					+3.3V							
	Current	4.30A										2.15A					0.69A							
Environment	Operating																		Non-Operating					
	Temperature	0 ~ 60 °C (dependent on CPU and cooler solution)																	-40 ~ 85 °C					
	Humidity	40 °C @ 85% relative humidity (non-condensing)																	60 °C @ 95% relative humidity (non-condensing)					
Physical	Dimensions (L x H)	338 x 122 mm (13.3" x 4.8")																						

## Block Diagram



## Ordering Information

Part Number	PCH	Memory	Backplane	LAN	VGA	DP/DVI-D	COM	SATA III	M.2	USB 2.0	USB 3.1 (Gen1)	USB3.1 (Gen2)	S/W Raid	AMT
PCE-7131G2-00A1	C246	ECC/Non-ECC	PCE-5BXX PCE-7BXX	2	Yes	2*	2	5	1	7	6	1	Yes	Yes

Note: DP/DVI-D cable is optional

## Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1700022749-11	Serial ATA HDD power cable	x1
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700022204	2-port USB cable kit	x1
9689000068	Jumper package	x1
2190000902	Warranty card	x1
2001512910	Startup manual	x1
2061512900	Utility CD	x1

## Optional Accessories

Part Number	Description
1960049408N001	CPU cooler for 1U Chassis and 84W TDP
1960047831N001/ 1960077101N001	CPU cooler for 2U Chassis and 95W TDP
1960052651N021	CPU cooler for 2U/4U Chassis and 80W TDP
PCA-AUDIO-HDB1E	Audio module
PCA-TPM-00A1E	TPM 1.2 module
PCA-COM232-00A1E	4-port RS-232 LPC module
PCA-COM485-00A1E	4-port RS-422/485 LPC module
1700020277-01	2-port USB 3.0 cable w/ BKT (30 cm)
1700021831-01	DP to DVI-D cable w/ BKT
PCE-DP10-00A1E	DP to DP cable w/ BKT
PCA-TPM-00B1E	TPM 2.0 module

## I/O View



PCE-7131G2-00A1E