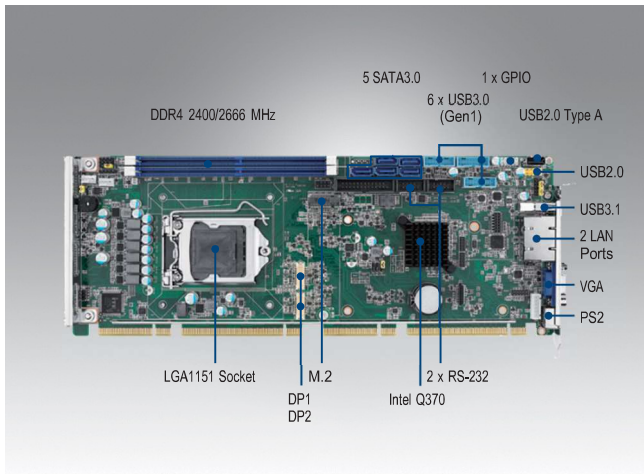


# PCE-5131

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



## Features

- Intel® Core™ i7/i5/i3 LGA1151 processor with Q370 chipset
- Up to 64 GB of dual-channel (non-ECC) DDR4 2400/2666 MHz
- PCIe 3.0, M.2, USB 3.0, SATA 3.0, and SW Raid 0, 1, 5, 10
- Supports out-of-band remote management with AMT
- Supports LPC modules, SUSIAccess, and embedded software APIs

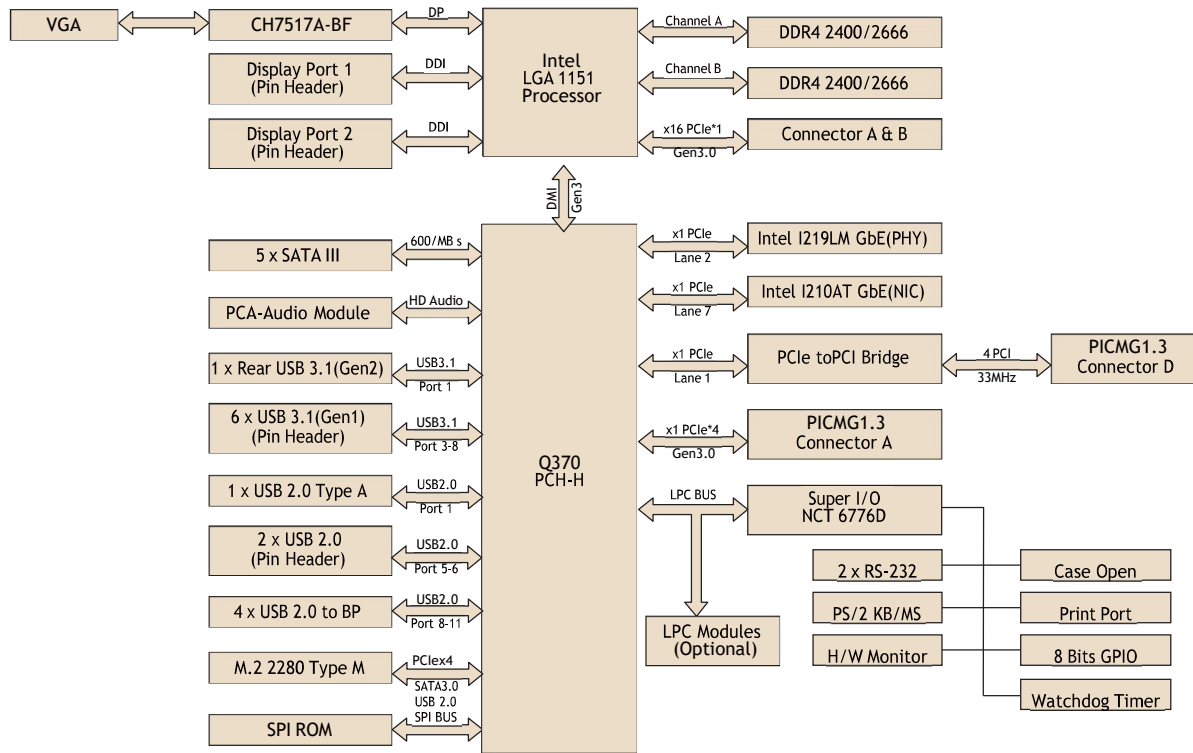
Note 1: Intel 8th and 9th generation processors only support Windows 10 (64-bit) (RS5 version).

## Quiet Specifications



		i7-	i7-	i7-	i7-	i5-	i5-	i5-	i5-	i3-	i3-	i3-	i3-				
Processor System	CPU	9700E	9700TE	8700	8700T	9500E	9500TE	8500	8500T	9100E	9100TE	8100T	G5400	G5400T	G4900	G4900T	
	Speed	2.6 GHz	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	2.9 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
	Cores	8	8	6	6	6	6	6	6	4	4	4	4	2	2	2	2
	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
	Socket	LGA1151															
	Chipset	Q370															
BIOS	AMI 256 Mbit SPI																
Bus	PCI-Express	1 x PCIe x16 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)															
	Max. Capacity	up to 64GB (based on CPU)															
	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															
Triple Display	CRT+DP/DVI-D+DP/DVI-D																
Ethernet	Interface	10/100/1000 Mbps															
	Controller	LAN 1: Intel® I219-LM LAN 2: Intel® I210AT															
	Connector with LED	2 x RJ45															
Rear I/O	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 Connecto	USB	7 x USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane) 6 x USB 3.1(Gen1) (pin header)															
	SATA (SW Raid 0,1,5,10)	5															
	M.2 (2280 Type M)	1 (supports SATA 3.0)															
	DP/DVI-D	2 (Pin header)															
	COM	2															
	IrDA	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, 3.4 GHz, 65 W, with 2 x 8-GB DDR4 2133															
	Voltage	+12V					+5V					+3.3V					
	Current	4.30A					2.15A					0.69A					
Environment	Temperature	Operating 0 ~ 60 °C (dependent on CPU and cooler solution)										Non-Operating -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	USB 3.1 (Gen2)	S/W Raid	AMT
PCE-5131G2-00A2	Q370	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
1700060202	Keyboard and mouse Y-cable	x1
1701090401	1-port COM cable kit	x1
1700002204	2-port USB 2.0 cable kit	x1
2190000902	Warranty card	x1
2001512910	Startup manual	x1

## Optional Accessories

Part Number	Description
1960049408N001	CPU heat sink for 1U Chassis and 35W TDP
1960050255N001	CPU cooler for 2U Chassis and 95W TDP
1960052651N021	CPU cooler for 2U/4U Chassis and 80W TDP
1700002204	2-port USB 2.0 cable kit
1700020277-01	2-port USB 3.0 cable kit
1700031719-01	4-port USB 3.0 cable kit
1701090401	1-port COM cable kit
1701092300	2-port COM cable kit
PCE-DP10-00A1E	DP to DP cable kit
1700021831-01	DP to DVI-D cable kit
PCA-TPM-00B1E	TPM 2.0 module
PCA-AUDIO-HDB1E	Audio module
PCA-COM232-00A1E	4-port RS-232 module via LPC interface
PCA-COM485-00A1E	4-port RS-422/485 module via LPC interface

## I/O View



PCE-5131G2-00A2