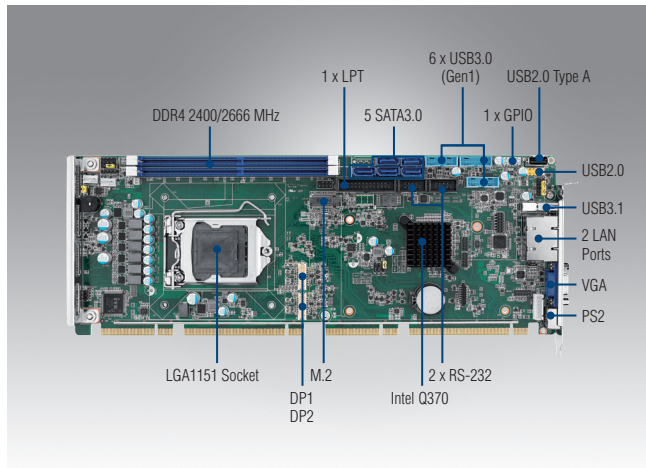


# PCE-5131

## 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 Advantech's LPC modules, SUSIAccess, and embedded software APIs

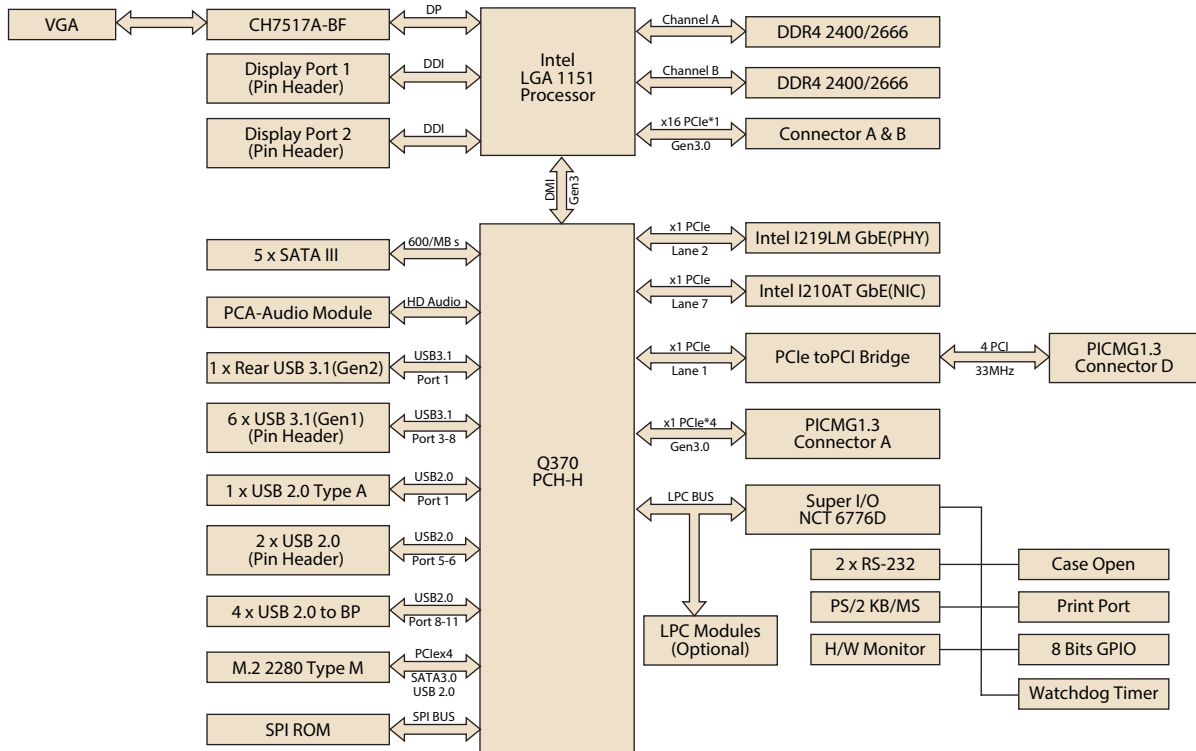
Note 1: Intel 8th and 9th generation processors only support Windows 10 (64-bit) (RS5 version).

### Quiet Specifications



Processor System	CPU	i7-	i7-	i7-	i7-	i5-	i5-	i5-	i5-	i3-	i3-	i3-	i3-	G5400	G5400T	G4900	G4900T	
	Speed	9700E	9700TE	8700	8700T	9500E	9500TE	8500	8500T	9100E	9100TE	8100	8100T					
	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																
Ethernet	Triple Display	CRT+DP/DVI-D+DP/DVI-D																
	Interface	10/100/1000 Mbps																
	Controller	LAN 1: Intel® I219-LM LAN 2: Intel® I210AT																
Rear I/O	Connector with LED	2 x RJ45																
	USB 3.1(Gen2)	1																
	Ethernet	2																
	VGA	1																
Internal Connector	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)																
	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																
	Parallel	1																
	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	Operating											Non-Operating						
	Temperature	0 ~ 60 °C (dependent on CPU and cooler solution)																
	Humidity	40 °C @ 85% relative humidity (non-condensing)																
Physical	Dimensions (L x H)	338 x 122 mm (13.3" x 4.8")																
		60 °C @ 95% relative humidity (non-condensing)																

## 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-5131G2-00A1	Q370	Non-ECC	PCE-5BXX	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
1700002204	2-port USB cable kit	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
1960050255N001/ 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-COM232-00A1E	4-port RS-232 LPC module
PCA-COM485-00A1E	4-port RS-422/485 LPC module
1700031719-01	4-port USB 3.0 cable w/ BKT (30cm)
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-5131G2-00A1E