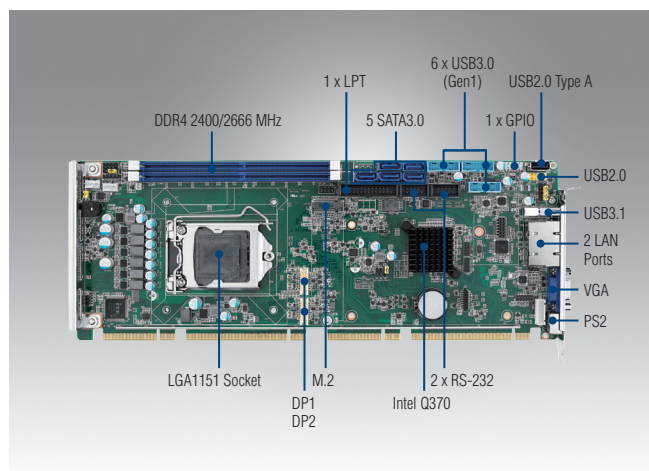


# PCE-5131

## LGA1151 8th 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 32 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 generation processors only support Windows 10 (64-bit).

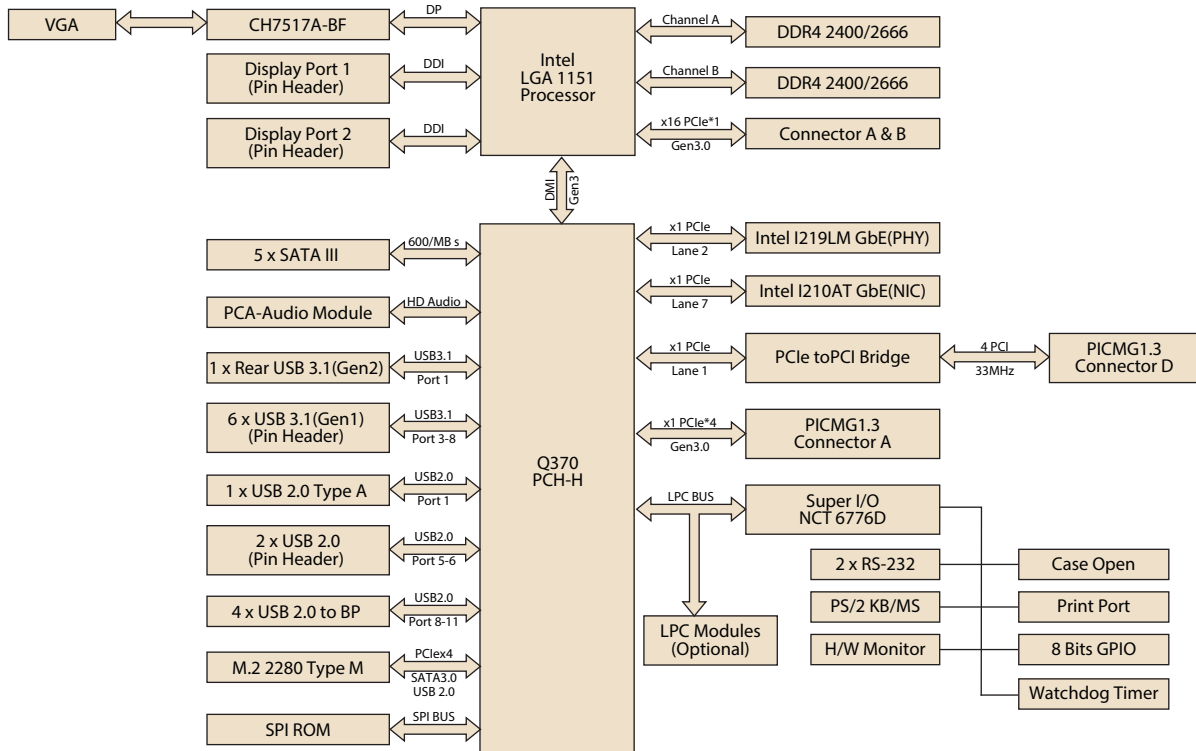
Quiet

### Specifications

CE FCC

Processor System	CPU	i7-8700	i7-8700T	i5-8500	i5-8500T	i3-8100	i3-8100T	G5400	G5400T	G4900	G4900T		
	Speed	3.2 GHz	2.4 GHz	3.0 GHz	2.1 GHz	3.6 GHz	3.1 GHz	3.7 GHz	3.1 GHz	3.1 GHz	2.9 GHz		
	L3 Cache	12 MB	12 MB	9 MB	9 MB	6 MB	6 MB	4 MB	4 MB	2 MB	2 MB		
	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	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											
	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 Connector	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 or PCIe x4)											
	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)								-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-5131G2-00A1	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
9689000068	Jumper package	x1
2190000902	Warranty card	x1
2001512910	Startup manual	x1
2061512900	Utility CD	x1

## Optional Accessories

Part Number	Description
1960052651N021	2U CPU cooler (PWM ran)
1960049408N001	CPU cooler for 1U chassis
PCA-AUDIO-HDB1E	Audio module
PCA-TPM-00A1E	TPM 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-5131G2-00A1E