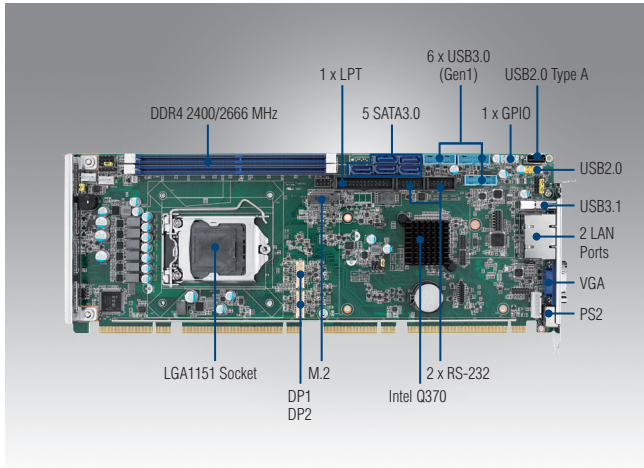


PCE-5131

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 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 and 9th generation processors only support Windows 10 (64-bit) (RS5 version).

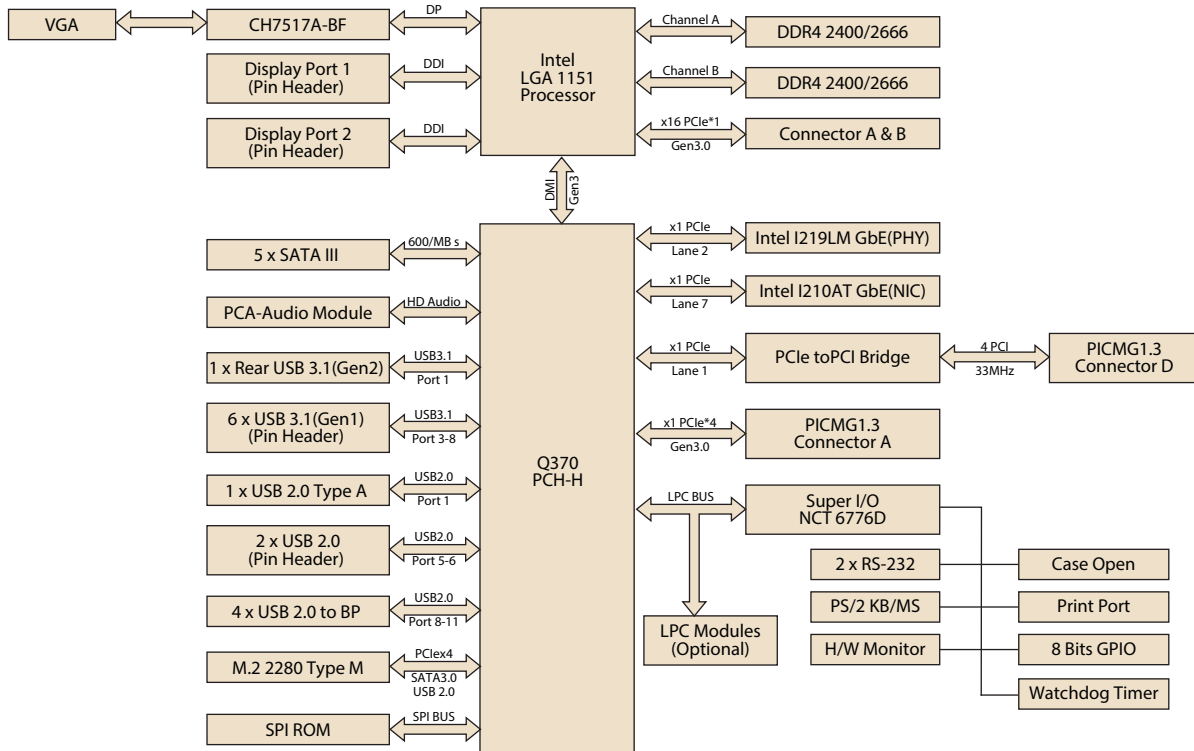
Quiet

Specifications

CE FCC

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	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	
	Cores	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	
	TDP	8	8	6	6	6	6	6	6	4	4	4	4	2	2	2	2	
	Socket	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	
	Chipset	LGA1151																
BIOS	Q370																	
Bus	PCI-Express	AMI 256 Mbit SPI																
	PCI	1 x PCIe x16 and 1 x PCIe x4 to backplane																
Memory	Technology	4 x PCI master to backplane, 32-bit, 33 MHz																
	Max. Capacity	Dual-channel (non-ECC) U-DIMM DDR4 2400/2666 MHz (supports x8 DDR4 1024 M)																
	Socket	32 GB (16 GB per DIMM)																
Graphics	Controller	2 x DDR4 288-pin DIMM																
	VRAM	Chipset integrated with Intel® HD Graphics																
	VGA	Shared system memory is subject to OS																
	DVI-D	Supports resolutions of up to 1920 x 1200 pixel @ 60 MHz																
	Triple Display	Supports resolutions of up to 1920 x 1200 pixel @ 60 MHz																
Ethernet	Interface	Supports resolutions of up to 1920 x 1080 pixel @ 60 Hz																
	Controller	CRT+DP/DVI-D+DP/DVI-D																
	Connector with LED	10/100/1000 Mbps																
Rear I/O	USB 3.1(Gen2)	LAN 1: Intel® I219-LM																
	Ethernet	LAN 2: Intel® I210AT																
	VGA	2 x RJ45																
	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)																
	SATA (SW Raid 0,1,5,10)	6 x USB 3.1(Gen1) (pin header)																
	M.2 (2280 Type M)	5																
	DP/DVI-D	1 (supports SATA 3.0)																
	COM	2 (Pin header)																
	Parallel	2																
	IrDA	1																
Watchdog Timer	GPIO	8bit																
	Output Interval	System reset																
Miscellaneous	Audio	Programmable 1-255 sec																
	Test Environment	Intel® High Definition audio interface (requires audio extension module PCA-AUDIO-HDB1E)																
Power Requirement	Voltage	i7-8700, 3.4 GHz, 65 W, with 2 x 8-GB DDR4 2133																
	Current	+12V																
	Operating	+5V																
Environment	Temperature	4.30A																
	Humidity	2.15A																
	Dimensions (L x H)	0.69A																
Physical	Operating	Non-Operating																
	Humidity	-40 ~ 85 °C																
Physical	Temperature	60 °C @ 95% relative humidity (non-condensing)																
	Humidity	40 °C @ 85% 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
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 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