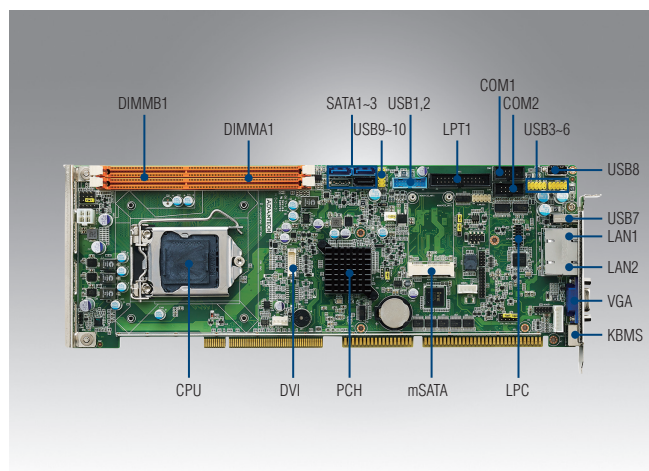


# PCA-6028

LGA1150 Intel® Core™ i7/i5/i3/Pentium SBC with VGA/DVI/Dual GbE LAN



## Features

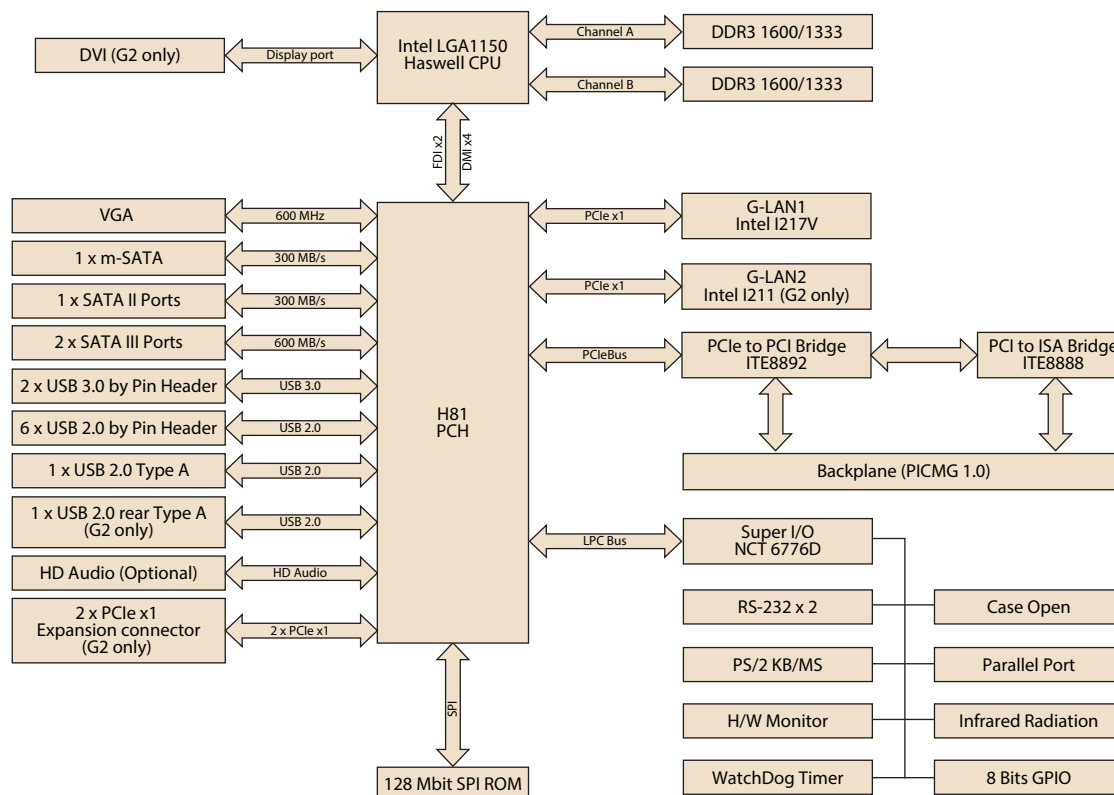
- Supports Intel® Core™ i7/i5/i3/Pentium LGA1150 processors with H81
- Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports USB 3.0, SATA3.0
- Dual display with VGA and DVI-D (optional)
- Supports Advantech LPC modules.
- Supports SUSIAccess and embedded software APIs

## Quiet Specifications

CE FCC

Processor System	<b>Haswell refresh CPUs are supported from BIOS V2.xx</b>								
	CPU	i7-4790S	i5-4590S	i5-4590T	i3-4360	i3-4350T	i3-4340TE		
	Base Frequency	3.2GHz	3.0GHz	2.0GHz	3.7GHz	3.1GHz	2.6GHz		
	L3 Cache	8MB	6MB	6MB	4MB	4MB	4MB		
	<b>Haswell CPUs are supported by both BIOS V1.xx and V2.xx</b>								
	CPU	i7-4770S	i7-4770TE	i5-4570S	i5-4570TE	i3-4330	i3-4330TE	G3420	G3320TE
	Base Frequency	3.1GHz	2.3GHz	2.9GHz	2.7GHz	3.5GHz	2.4GHz	3.2GHz	2.3GHz
	L3 Cache	8MB	8M	6MB	4MB	4MB	3MB	3MB	3MB
	SKU/Chipset	Intel H81							
	BIOS	AMI 128Mbit SPI Flash							
Bus	ISA	HISA (ISA High Driver)							
	PCI	32 bit/ 33 MHz PCI							
Memory	Technology	Dual channel (Non-ECC) DDR3 1333/1600							
	Max. Cap.	16 GB (8 GB per DIMM)							
	Socket	DDR3 240-pin DIMM x 2							
Graphics	Controller	Chipset integrated Intel HD Graphics							
	VRAM	Shared system memory is subject to OS							
	CRT	Supports resolution up to 2048 x 1536 pixel at 60Hz							
	DVI-D	Supports resolution up to 1920 x 1200 pixel at 60Hz (G2 only)							
Ethernet	Interface	10/100/1000 Mbps							
	Controller	LAN 1: Intel I217V LAN 2: Intel I211 (Only in G2 Sku)							
	Connector with LED	RJ45 x 1 (VG sku); RJ45 x 2(G2 sku)							
SATA	Channel	SATA 3.0 x 2 (600 MB/sec), SATA2.0 x 1 (300MB/sec), mSATA x1 (300 MB/sec)							
Rear I/O	USB 2.0	1 (Only in G2 sku)							
	Ethernet	1 (VG sku); 2 (G2 sku)							
	VGA	1							
	PS/2	1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse)							
Internal Connector	USB	Up to 8x USB2.0 (6x Pin header, 1x Type A, 1x Rear in G2 sku only) 2x USB3.0 (Pin header)							
	SATA	4(1x SATA2.0, 2x SATA3.0, 1x mSATA)							
	DVI-D	1 (Pin header)							
	COM	2							
	Parallel	1							
	IrDA	1							
	GPIO	8-bit							
Watchdog Timer	Output	System reset							
	Interval	Programmable 1-255 sec							
Miscellaneous	Audio	Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E)							
Power Requirement	Test Environment	Core i7-4790S@3.20GHz; 8GB DDR3 1600 2Rx8*2; SATA HDD*1							
	Voltage	+12V	+5V	+3.3V	+5Vsb	-12V	-5V		
	Current	4.94A	1.83A	0A	0.01A	0A	0A		
Environment	Operating							Non-operating	
	Temperature/Humidity	0 ~ 60 °C (32~140 °F); Depends on CPU frequency and cooler solution					-40 ~ 85 °C and 60 °C @ 95% RH Non-Condensing		
		Operating humidity: 40 °C @ 85% RH Non-Condensing							
Physical	Dimensions (L x H)	338 x 122 mm (13.3" x 4.8")							

## Block Diagram



## Ordering Information

Part Number	LAN	VGA	DVI-D	COM	SATA	USB	m-SATA
PCA-6028VG-00A1E	1	Yes	-	2	3 (1 x 2.0 + 2 x 3.0)	9 (2 x 3.0 + 7 x 2.0)	1
PCA-6028G2-00A1E	2	Yes	1*	2	3 (1 x 2.0 + 2 x 3.0)	10 (2 x 3.0 + 8 x 2.0)	1

\*Note: Output DVI-D signal only (Required DVI-D cable: 1700021831-01)

## Packing List

Part Number	Description	Quantity
1700003194	Serial ATA HDD data cable	x2
1701260305	COM + printer ports cable kit	x1
1700060202	Keyboard and mouse Y-cable	x1
1700008461-11	4-port USB cable kit	x1
2190000902	Warranty Card	x1
-	Startup manual	x1
-	Utility CD	x1

## Optional Accessories

Part Number	Description
1701090401	Single COM cable
1701092300	Dual COM cable
1700020277-01	2-port USB 3.0 cable w/ BKT (30cm)
1700021831-01	DP to DVI-D cable w/ BKT (digital signal only)
1960047831N001	PCA-6028 optimized CPU cooler (2U)
PCA-AUDIO-HDA1E	Extension module for 7.1 Channel High Definition Audio
PCA-COM232-00A1E	4 x RS-232 module
PCA-COM485-00A1E	4 x RS-422/485 module
PCA-TPM-00A1E	Trusted platform module compliant with TCG 1.2

## I/O View



PCA-6028G2-00A1E



PCA-6028VG-00A1E