

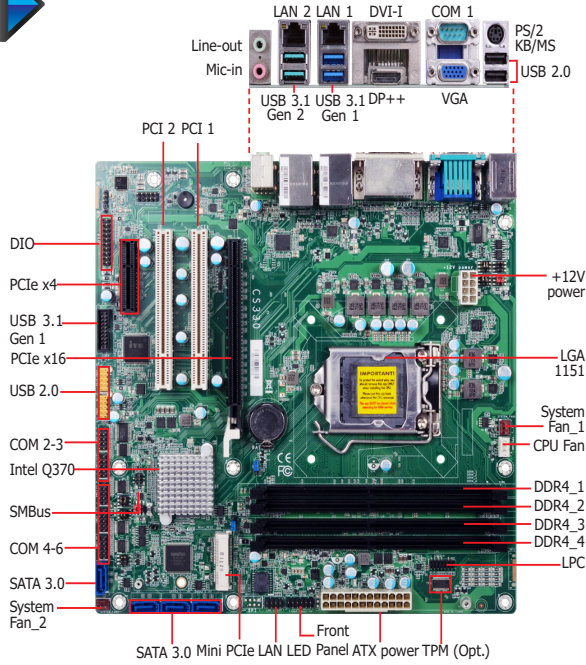


**9th/8th Gen Intel® Core™ Processor
microATX**



CS330-Q370

Desktop



Features

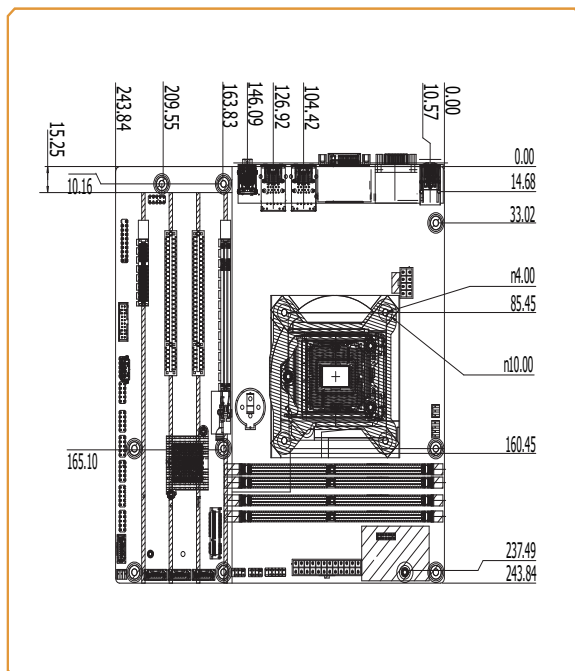
- 4 DDR4 DIMM up to 128GB
- Three display ports: VGA, DVI-D, DP++ Supports three independent displays
- DP++ resolution up to 4096x2160 @ 60Hz DVI-D resolution up to 1920x1200 @ 60Hz
- Multiple expansion: 1 PCIe x16, 1 PCIe x4, 2 PCI, 1 Mini PCIe
- Rich I/O: 2 Intel GbE, 6 COM, 2 USB 3.1 Gen 2, 4 USB 3.1 Gen 1, 6 USB 2.0



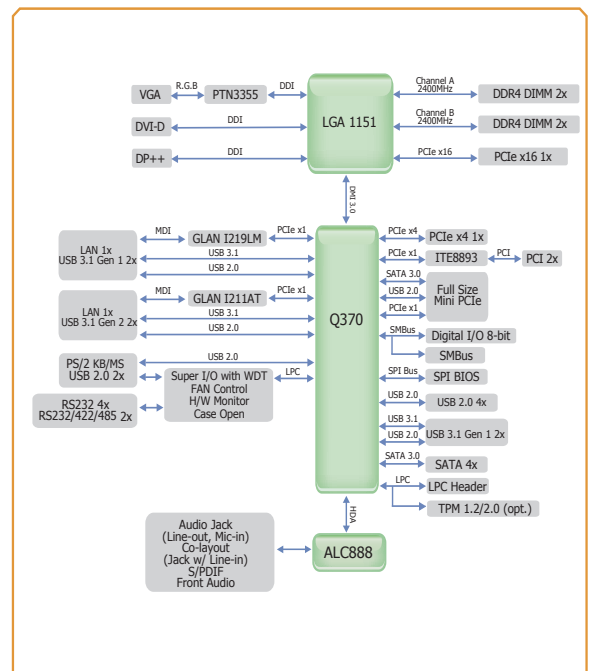
Ordering Information

Model Name	P/N	Memory	GbE	RS-232/422/485	RS-232	USB 3.1 Gen 1	USB 3.1 Gen 2	U S B 2.0	Power	Thermal Temp.
CS330-Q370CRM	770-CS3301-100G	4 DIMM	2	2	4	4	2	6	24-pin ATX/8-pin ATX 12V	Active 0 to 60°C

Mechanical Drawing



Block Diagram





Specifications

SYSTEM	Processor	8th Generation Intel® Core™ /Pentium®/Celeron® LGA 1151 Socket Processors: Intel® Core™ i7-8700K (6 Cores, 12M Cache, up to 4.7 GHz); 95W Intel® Core™ i7-8700 (6 Cores, 12M Cache, up to 4.6 GHz); 65W Intel® Core™ i7-8700T (6 Cores, 12M Cache, up to 4.0 GHz); 35W Intel® Core™ i5-8500 (6 Cores, 9M Cache, up to 4.1 GHz); 65W Intel® Core™ i5-8500T (6 Cores, 9M Cache, up to 3.5 GHz); 35W Intel® Core™ i3-8100 (4 Cores, 6M Cache, 3.6 GHz); 65W Intel® Core™ i3-8100T (4 Cores, 6M Cache, to 3.1 GHz); 35W Intel® Pentium® G5400 (2 Cores, 4M Cache, 3.7 GHz); 58W Intel® Pentium® G5400T (2 Cores, 4M Cache, 3.1 GHz); 35W Intel® Celeron® G4900 (2 Cores, 2M Cache, 3.1 GHz); 54W Intel® Celeron® G4900T (2 Cores, 2M Cache, 2.9 GHz); 35W 9th Generation Intel® Core™ LGA 1151 Socket Processors: Intel® Core™ i7-9700TE (8 Cores, 12M Cache, up to 3.8 GHz); 35W Intel® Core™ i5-9500E (6 Cores, 9M Cache, up to 4.2 GHz); 65W Intel® Core™ i5-9500TE (6 Cores, 9M Cache, up to 3.6 GHz); 35W Intel® Core™ i3-9100E (4 Cores, 6M Cache, 3.7 GHz); 65W Intel® Core™ i3-9100TE (4 Cores, 6M Cache, to 3.2 GHz); 35W		
	Chipset	Intel® Q370 Chipset		
	Memory	Four 288-pin DIMM up to 128GB	Dual Channel DDR4 2400/2666 MHz	
	BIOS	AMI SPI 128Mbit		
	GRAPHICS	Controller	Intel® HD Gen 9 Graphics	
	Feature	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9		
	Display	1 x VGA 1 x DVI-I (DVI-D signal) 1 x DP++	VGA: resolution up to 1920x1200 @ 60Hz DVI-D: resolution up to 1920x1200 @ 60Hz DP++: resolution up to 4096x2160 @ 60Hz	
	Triple Displays	VGA + DVI-D + DP++		
EXPANSION	Interface	1 x PCIe x16 (Gen 3) 1 x PCIe x4 (Gen 3)	1 x Full-size Mini PCIe (USB/PCIe/mSATA, PCIe by default) 2 x PCI	
AUDIO	Audio Codec	Realtek ALC888		
ETHERNET	Controller	1 x Intel® I211AT (10/100/1000Mbps) 1 x Intel® I219LM with iAMT12.0 (10/100/1000Mbps) (only Core i7/i5 supports iAMT)		
REAR I/O	Ethernet	2 x GbE (RJ-45)		
	USB	2 USB 3.1 Gen 2 2 USB 2.0	2 USB 3.1 Gen 1	
	Serial	1 x RS-232/422/485 (RS-232 w/ power) (DB-9)		
	PS/2	1 x PS/2 (mini-DIN-6)		
	Display	1 x VGA 1 x DP++	1 x DVI-I (DVI-D signal)	
	Audio	1 x Line-out 1 x Line-in (opt.)	1 x Mic-in	
INTERNAL I/O	Serial	1 x RS-232/422/485 (RS-232 w/ power) (2.54mm pitch) 4 x RS-232		
	USB	2 x USB 3.1 Gen 1 (2.00mm pitch)	4 x USB 2.0 (2.54mm pitch)	
	Audio	1 x S/PDIF	1 x Front Audio Header	
	SATA	4 x SATA 3.0 (up to 6Gb/s)	RAID 0/1/5/10	
	DIO	1 x 8-bit DIO		
	LPC	1 x LPC		
	SMBus	1 x SMBus		
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 sec/min		
SECURITY	TPM	Infineon TPM2.0/1.2 (optional)		
POWER	Type	ATX		
	Connector	8-pin ATX 12V power	24-pin ATX power	
	Consumption	TBD		
	RTC Battery	CR2032 Coin Cell		
OS SUPPORT		Windows 10 IoT Enterprise	Linux	
ENVIRONMENT	Temperature	Operating: 0 to 60°C	Storage: -40 to 85°C	
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH	
	MTBF	TBD		
MECHANICAL	Dimensions	microATX form factor	244mm (9.6") x 244mm (9.6")	
	Height	PCB: TBD	Top Side: TBD, Bottom Side: TBD	
CERTIFICATION		UL, CE, FCC, RoHS, KCC		

Packing List

• 1 CS330-Q370 motherboard	
• 1 COM port cable (W/Bracket, Length: 300mm, 2 x COM ports)	A81-015026-023G
• 1 Serial ATA data cable (W/LOCK, Length: 500mm)	332-553001-005G
• 1 Screw of Mini PCIe card	531-510180-000G

Optional Items

• USB 2.0 port cable (Length: 350/398mm)	A81-001066-016G
• USB 3.0 port cable (Length: 350mm)	A81-001052-023G
• COM port cable (Length: 300mm, 2 x COM ports)	A81-015026-023G
• Serial ATA data cable (Length: 500mm)	332-553001-005G
• Thermal solution (For 35W, Height: 37.3mm)	A71-101107-000G
• Thermal solution (For 65W, Height: 72.8mm)	552-200049-000G
• Thermal solution (For 95W, Height: 69.3mm)	761-103001-000G
• LPC EXT-RS232 module (4 x RS232 ports)	770-EXTRS1-000G
• LPC EXT-RS485 module (4 x RS485 ports)	770-EXTRS1-100G
• DP to HDMI Dongle	612-D2H13M-000G

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