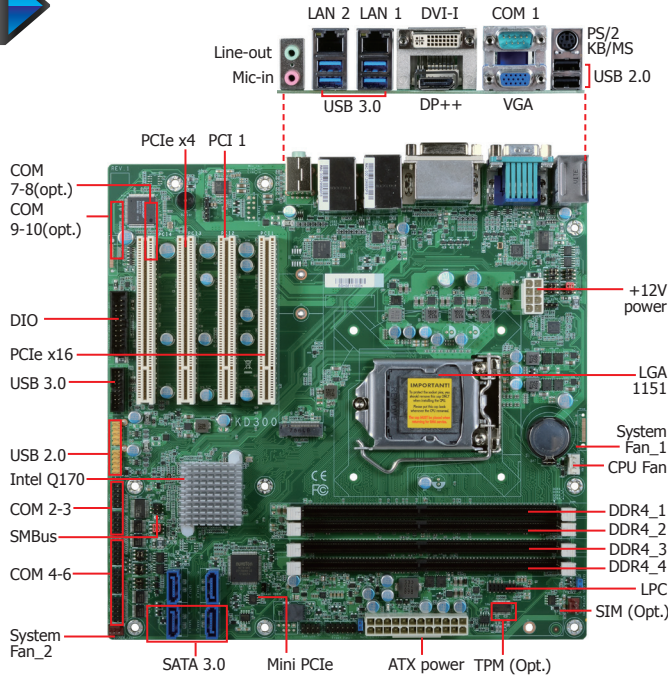


KD300-Q170

Desktop

Q170



Features

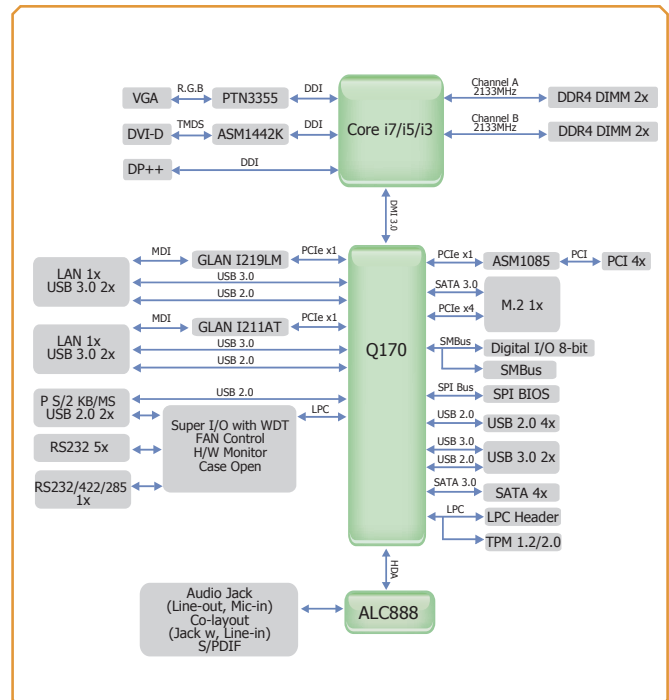
- 4 DDR4 DIMM up to 64GB
- Three display ports: VGA, DVI-D, DP++ Supports three independent displays
- DP++ resolution up to 4096x2160 @ 60Hz DVI-D resolution up to 1920x1200 @ 60Hz
- Multiple expansion: 4 PCI, 1 M.2
- Rich I/O: 2 Intel GbE, 6 COM (default), 4 COM (opt.), 6 USB 3.0, 6 USB 2.0



Mechanical Drawing



Block Diagram



Specifications

SYSTEM	Processor	7th Generation Intel® Core™ Processors, LGA 1151 Socket Intel® Core™ i7-7700 Processor, Quad Core, 8M Cache, 3.6GHz (4.2GHz), 65W Intel® Core™ i7-7700T Processor, Quad Core, 8M Cache, 2.9GHz (3.8GHz), 35W Intel® Core™ i5-7500 Processor, Quad Core, 6M Cache, 3.4GHz (3.8GHz), 65W Intel® Core™ i5-7500T Processor, Quad Core, 6M Cache, 2.7GHz (3.3GHz), 35W Intel® Core™ i3-7101E Processor, Dual Core, 3M Cache, 3.9GHz, 54W Intel® Core™ i3-7101TE Processor, Dual Core, 3M Cache, 3.4GHz, 35W Intel® Celeron® Processor G3930E, Dual Core, 2M Cache, 2.9GHz, 54W Intel® Celeron® Processor G3930TE, Dual Core, 2M Cache, 2.7GHz, 35W 6th Generation Intel® Core™ Processors, LGA 1151 Socket Intel® Core™ i7-6700 Processor, Quad Core, 8M Cache, 3.4GHz (4.0GHz), 65W Intel® Core™ i7-6700TE Processor, Quad Core, 8M Cache, 2.4GHz (3.4GHz), 35W Intel® Core™ i5-6500 Processor, Quad Core, 6M Cache, 3.2GHz (3.6GHz), 65W Intel® Core™ i5-6500TE Processor, Quad Core, 6M Cache, 2.3GHz (3.3GHz), 35W Intel® Core™ i3-6100 Processor, Dual Core, 4M Cache, 3.7GHz, 65W Intel® Core™ i3-6100TE Processor, Dual Core, 4M Cache, 2.7GHz, 35W Intel® Pentium® Processor G4400, Dual Core, 3M Cache, 3.3GHz, 65W Intel® Pentium® Processor G4400TE, Dual Core, 3M Cache, 2.9GHz, 35W Intel® Celeron® Processor G3900, Dual Core, 2M Cache, 2.8GHz, 65W Intel® Celeron® Processor G3900TE, Dual Core, 2M Cache, 2.6GHz, 35W								
	Chipset	Intel® Q170 Chipset								
	Memory	4 288-pin DIMM up to 64GB Dual Channel DDR4 2133/2400MHz								
	BIOS	Insyde 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	4 x PCI 1 x M.2 2260/2280 M-key (PCIe/SATA 3.0)								
AUDIO	Audio Codec	Realtek ALC888S-VD2-GR								
ETHERNET	Controller	1 x Intel® I211AT PCIe (10/100/1000Mbps) 1 x Intel® I219LM PCIe (10/100/1000Mbps)								
REAR I/O	Ethernet	2 x GbE (RJ-45)								
	USB	4 x USB 3.0 2 x USB 2.0								
	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 DVI-I (DVI-D signal) 1 x DP++								
	Audio	1 x Line-out 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 (default), 4 x RS-232 (available upon request)								
	USB	2 x USB 3.0 (2.00mm pitch) 4 x USB 2.0 (2.54mm pitch)								
	Audio	1 x S/PDIF								
	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 Seconds							
SECURITY	TPM	2.0								
POWER	Type	ATX								
	Connector	8-pin ATX 12V power 24-pin ATX power								
	Consumption	TBD								
	RTC Battery	CR2032 Coin Cell								
OS SUPPORT		Windows 10 RS2 64-bit Window 7 (32/64-bit) & Windows 8.1 64-bit for 6th Generation								
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								

Ordering Information

Model Name	P/N	Memory	GbE	RS-232/422/485	RS-232	USB 3.0	USB 2.0	Power	Thermal	Temp.
KD300-Q170	TBD	4 DIMM	2	2	4	6	6	24-pin ATX / 8-pin ATX 12V	Active	0 to 60°C

Packing List

• 1 KD300-Q170 motherboard	
• 1 COM port cable (Length: 300mm, 2 x COM ports)	A81-015026-023G
• 1 Serial ATA data cable (Length: 500mm)	332-553001-005G
• 1 I/O shield	TBD
• 1 DVD	

Optional Items

• USB 2.0 port cable (Length: 350/398mm)	332-253010-026G
• 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)	A71-103004-000G
• Thermal solution (For 65W, Height: 72.8mm)	552-200049-000G
• LPC EXT-RS232 module (4 x RS232 ports)	770-EXTRS1-000G
• LPC EXT-RS485 module (4 x RS485 ports)	770-EXTRS1-100G
• USB 3.0 port cable (Length: 320mm)	A81-001052-023G