



**6th/7th Gen Intel® Core™  
Mini-ITX**

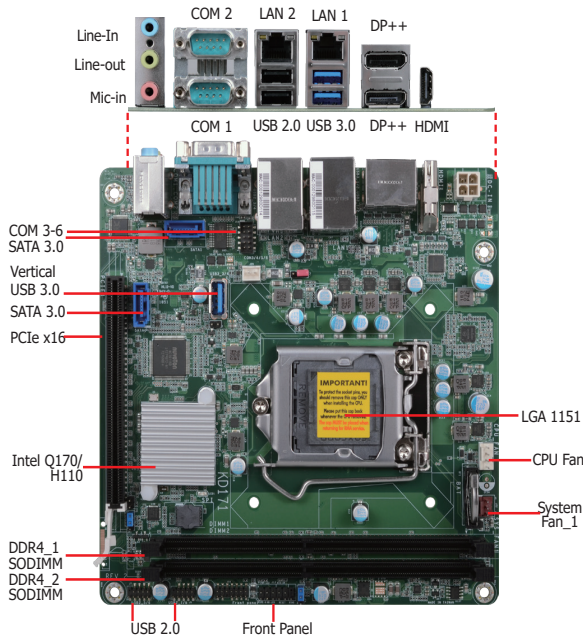


# KD171

Desktop

### Features

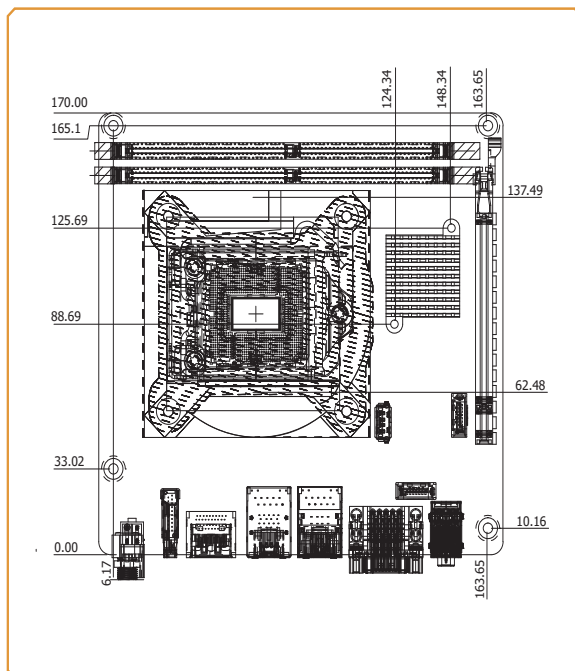
- 2 DDR4 UDIMM up to 32GB
- Three independent displays:  
DP++ + DP++ + HDMI (Q170)
- DP++ resolution up to 4096x2160 @ 60Hz  
HDMI 1.4 resolution up to 4096x2160 @ 24Hz
- Expansion: 1 PCIe x16
- Storage: 2 SATA 3.0
- Rich I/O: 2 GbE, 6 COM, 3 USB 3.0, 6 USB 2.0



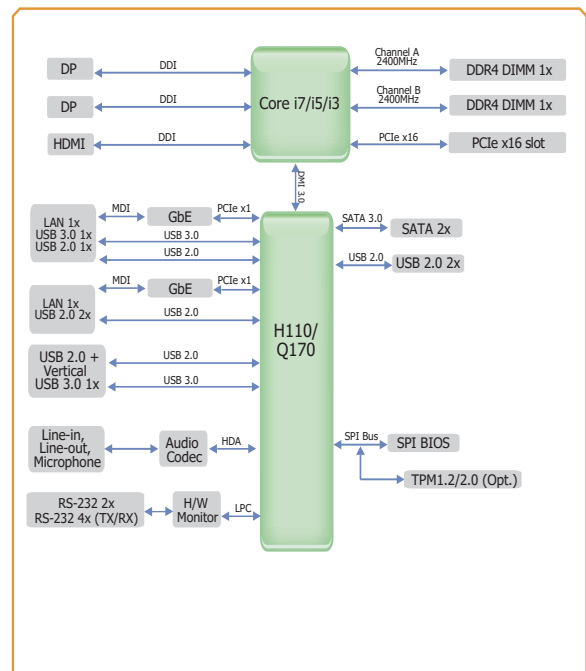
### Ordering Information

Model Name	P/N	Memory	GbE	DP	HDMI	RS-232	SATA 3.0	USB 3.0	USB 2.0	Power	Thermal	Temp.
<b>KD171-H110</b>	770-KD1711-000G	2 UDIMM	2	2	1	6	2	3	6	12V DC	Active	0 to 60°C
<b>KD171-Q170</b>	770-KD1711-100G	2 UDIMM	2	2	1	6	2	3	6	12V DC	Active	0 to 60°C
<b>KD171-H110</b>	770-KD1711-200G	2 UDIMM	2	2	1	6	2	3	6	12V 4-pin vertical	Active	0 to 60°C
<b>KD171-Q170</b>	770-KD1711-300G	2 UDIMM	2	2	1	6	2	3	6	12V 4-pin vertical	Active	0 to 60°C

### Mechanical Drawing



### Block Diagram





**Specifications**

<b>SYSTEM</b>	<b>Processor</b>	6th/7th Generation Intel® Core™ Processors, LGA 1151 Socket Intel® Core™ i7-7700T Processor, Quad Core, 8M Cache, 2.9GHz (3.8GHz), 35W Intel® Core™ i7-7700 Processor, Quad Core, 8M Cache, 3.6GHz (4.2GHz), 65W Intel® Core™ i5-7500T Processor, Quad Core, 6M Cache, 2.7GHz (3.3GHz), 35W Intel® Core™ i5-7500 Processor, Quad Core, 6M Cache, 3.4GHz (3.8GHz), 65W 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® G3930, Dual Core, 3M Cache, 2.9GHz, 51W Intel® Celeron® G3930E, Dual Core, 3M Cache, 2.9GHz, 54W Intel® Core™ i7-6700TE, Quad Core, 2.4GHz (3.4GHz), 35W Intel® Core™ i5-6500TE, Quad Core, 2.3GHz (3.3GHz), 35W Intel® Core™ i7-6700, Quad Core, 8M Cache, 3.4GHz (4.0GHz), 65W Intel® Core™ i5-6500, Quad Core, 6M Cache, 3.2GHz (3.6GHz), 65W Intel® Core™ i3-6100, Dual Core, 3.7GHz, 51W Intel® Core™ i3-6100TE, Dual Core, 2.7GHz, 35W Intel® Pentium® G4400, Dual Core, 3.3GHz, 54W Intel® Pentium® G4400TE, Dual Core, 2.4GHz, 35W Intel® Celeron® G3900, Dual Core, 2.8GHz, 51W Intel® Celeron® G3900TE, Dual Core, 2.3GHz, 35W
	<b>Chipset</b>	Intel® Q170/H110
	<b>Memory</b>	Two 288-pin UDIMM up to 32GB Dual Channel DDR4 2133/2400 MHz
	<b>BIOS</b>	Insyde SPI
	<b>GRAPHICS</b>	<b>Controller</b> Intel® HD Gen 9 Graphics
	<b>Feature</b> 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	
	<b>Display</b> 2 x Full Size DP++ Full Size DP++: resolution up to 4096x2160 @ 60Hz 1 x HDMI 1.4 (optional) HDMI: resolution up to 4096x2160 @ 24Hz	
	<b>Triple Displays</b> Q170: DP++ + DP++ + HDMI H110: DP++ + DP++ + HDMI	
<b>EXPANSION</b>	<b>Interface</b> 1 x PCIe x16 (Gen 3)	
<b>ETHERNET</b>	<b>Controller</b> 2 x GbE (10/100/1000Mbps) 2 x Realtek® 8111HN or 8119 (opt.)	
<b>REAR I/O</b>	<b>Ethernet</b>	2 x GbE (RJ-45)
	<b>Serial</b>	2 x RS-232 (DB-9)
	<b>USB</b>	2 x USB 3.0 2 x USB 2.0
	<b>Display</b>	2 x Full Size DP++ 1 x HDMI 1.4 (optional)
	<b>Audio</b>	1 x Line-in 1 x Line-out 1 x Mic-in
<b>INTERNAL I/O</b>	<b>Serial</b>	4 x RS-232 (TX/RX only)
	<b>USB</b>	1 x Vertical USB 3.0 4 x USB 2.0
	<b>SATA</b>	2 x SATA 3.0 (up to 6Gb/s)
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b> System Reset, Programmable via Software from 1 to 255 Seconds	
<b>SECURITY</b>	<b>TPM</b> Infineon TPM 2.0	
<b>POWER</b>	<b>Type</b>	12V DC
	<b>Connector</b>	DC Jack Vertical Type Connector (4-pin) (opt.)
	<b>Consumption</b>	Idle: i7-7700 65W: 12V @ 0.85A (10.2W) Max: i7-7700 65W: 12V @ 9.16A (109.92W)
	<b>RTC Battery</b>	CR2032 Coin Cell
<b>OS SUPPORT</b>	<b>Microsoft/Linux</b> Windows 10 LTSB (64 bits) Window 7 (32/64bit) for 6th Generation Processors Linux	
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: 0 to 60°C Storage: -40 to 85°C
	<b>Humidity</b>	Operating: 5 to 90% RH Storage: 5 to 90% RH
	<b>MTBF</b>	KD171-Q170: 1,454,376 hrs @ 25°C; 737,553 hrs @ 45°C; 447,012 hrs @ 60°C KD171-H110: 1,454,376 hrs @ 25°C; 737,553 hrs @ 45°C; 447,012 hrs @ 60°C Calculation model: Telcordia Issue 4 Environment: GB, GC – Ground Benign, Controlled
<b>MECHANICAL</b>	<b>Dimensions</b>	Mini-ITX Form Factor 170mm (6.7") x 170mm (6.7")
	<b>Height</b>	PCB: 1.6mm
<b>CERTIFICATIONS</b>	CE, FCC Class A, RoHS	

**Packing List**

• 1 KD171-Q170/H110 motherboard	
• 1 Serial ATA data cable (Length: 500mm)	332-553001-005G
• 1 Serial ATA power cable (Length: 260mm)	A81-000008-018G

**Optional Items**

• COM port cable (Length: 300m)	A81-015041-018G
• USB 2.0 port cable (Length: 200mm)	A81-001032-016G
• Serial ATA power cable (Length: 260mm)	A81-000008-018G
• 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
• I/O shield	A49-KD1710-010G

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