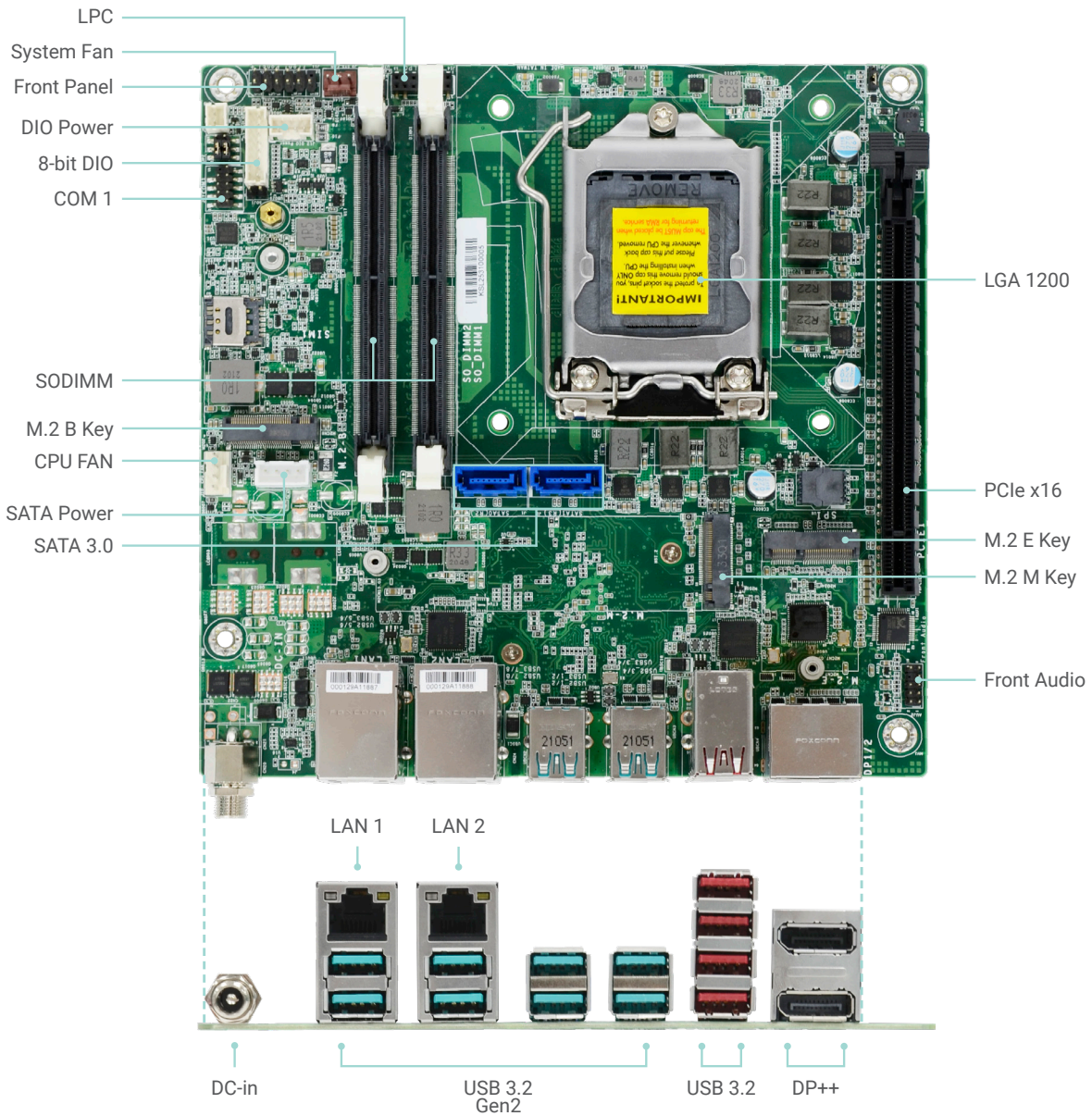


CMS171/CMS173

10th Gen Intel® Core™
Desktop
Mini-ITX



Top View

KEY FEATURES



DDR4

2 DDR4 SODIMM up to 64GB



4K High Resolution

Supports 4K/ 2K resolution



Dual Displays

2 DP++



Multiple Expansion

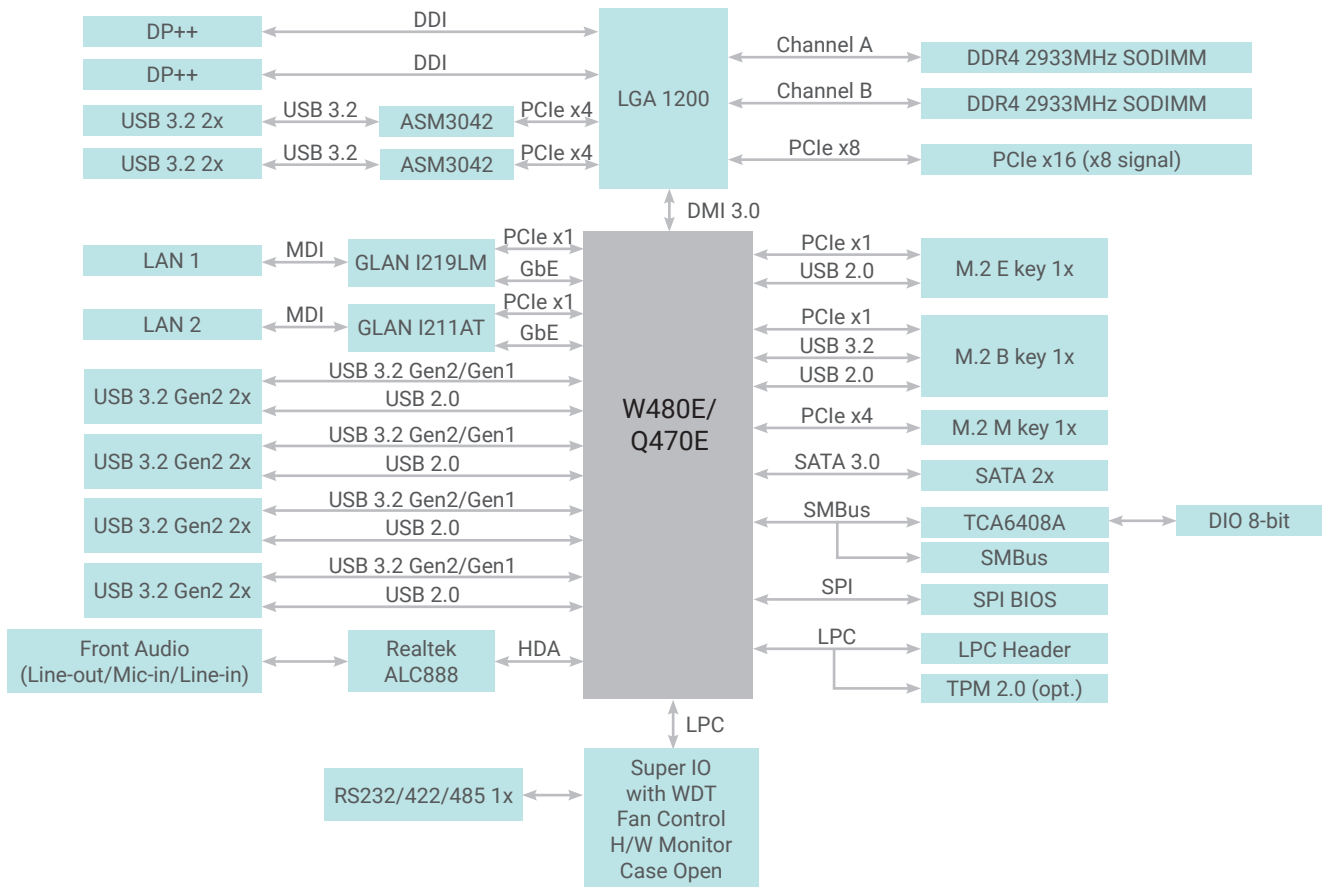
1 PCIe x16 (x8 signal),
1 M.2 E Key, 1 M.2 M Key,
1 M.2 B Key



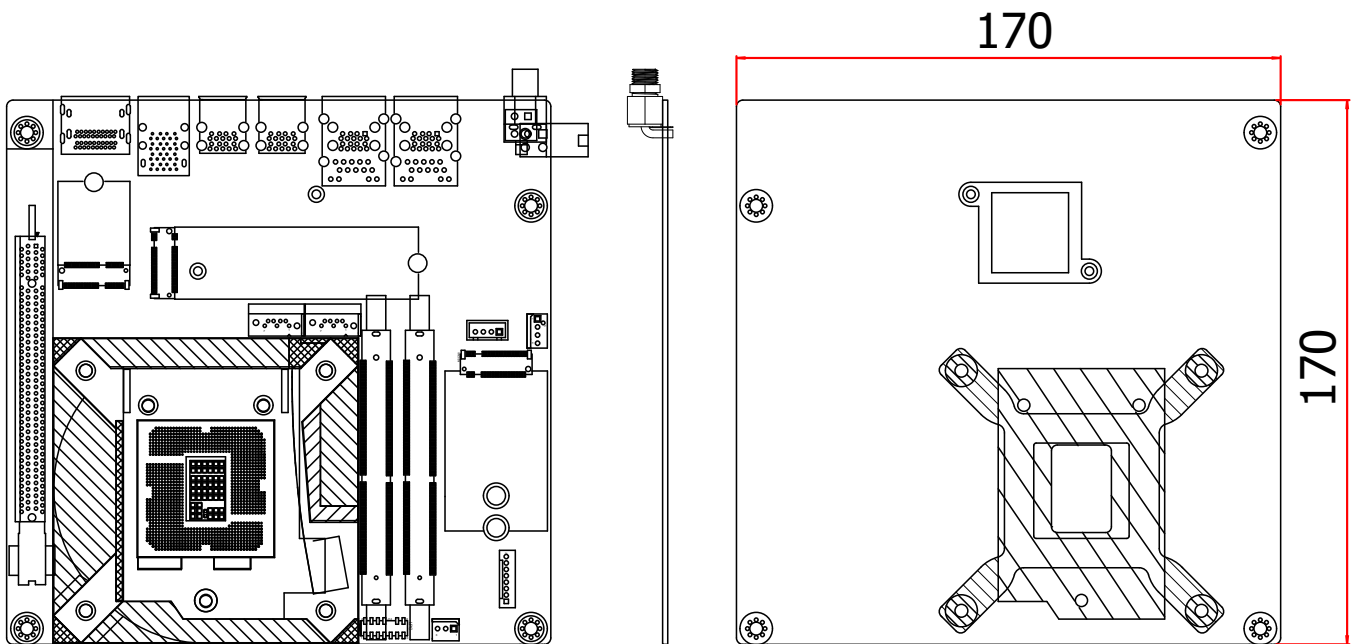
Rich I/O

2 Intel GbE, 8 USB 3.2 Gen2,
4 USB 3.2, 2 COM, 2 SATA 3.0,
1 SATA Power

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	10th Gen Intel® LGA 1200 Socket Processors, TDP support up to 65W Intel® Xeon® W-1290TE (10 Cores, 20M Cache, up to 4.5 GHz); 35W (ECC support on W480E SKU only) Intel® Xeon® W-1270TE (8 Cores, 16M Cache, up to 4.4 GHz); 35W (ECC support on W480E SKU only) Intel® Xeon® W-1250TE (6 Cores, 12M Cache, up to 3.8 GHz); 35W (ECC support on W480E SKU only) Intel® Core™ i9-10900E (10 Cores, 20M Cache, up to 4.7 GHz); 65W Intel® Core™ i9-10900TE (10 Cores, 20M Cache, up to 4.5 GHz); 35W Intel® Core™ i7-10700E (8 Cores, 16M Cache, up to 4.5 GHz); 65W Intel® Core™ i7-10700TE (8 Cores, 16M Cache, up to 4.4 GHz); 35W Intel® Core™ i5-10500E (6 Cores, 12M Cache, up to 4.2 GHz); 65W Intel® Core™ i5-10500TE (6 Cores, 12M Cache, up to 3.7 GHz); 35W Intel® Core™ i3-10100E (4 Cores, 6M Cache, 3.8 GHz); 65W (ECC support on W480E SKU only) Intel® Core™ i3-10100TE (4 Cores, 6M Cache, to 3.6 GHz); 35W (ECC support on W480E SKU only) Intel® Pentium® G6400E (2 Cores, 4M Cache, 3.8 GHz); 58W (Not support on W480E SKU) Intel® Celeron® G5900E (2 Cores, 2M Cache, 3.2 GHz); 58W (Not support on W480E SKU) Intel® Celeron® G5900TE (2 Cores, 2M Cache, 3.0 GHz); 35W (Not support on W480E SKU)		
	Chipset	Intel® W480E/Q470E Chipset		
	Memory	Two 260-pin SODIMM up to 64GB Dual Channel DDR4 2933MHz (ECC supported by W480E only)		
	BIOS	AMI SPI 256Mbit		
	GRAPHICS	Controller	Intel® UHD Graphics 630 (only Pentium G5400/Celeron G4900 support 610)	
	Feature	OpenGL 4.5, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: AVC/H.264, MPEG2, JPEG, HEVC/H265, VP8, VP9		
	Display	2 x DP++	DP: resolution up to 4096 x 2106 @ 60Hz	
	Dual Displays	2 x DP++		
EXPANSION	Interface	1 x PCIe x16 (Gen 3) (x8 signal) 1 x M.2 2230 E key (PCIe/USB 2.0/Intel CNVi support) for WiFi6 1 x M.2 2280 M key (PCIe x4 Gen3 NVMe/SATA/Intel Optane Memory support) for SSD 1 x M.2 3042/3052 B key (PCIe/USB3.0) for 4G LTE/5G with SIM holder		
	Audio Codec	Realtek ALC888		
	ETHERNET	Controller	1 x Intel® I219LM PHY with iAMT12 and vPro (10/100/1000Mbps) (Core i7/i5 supports iAMT) 1 x Intel® I211AT PCIe (10/100/1000Mbps)	
	REAR I/O	Ethernet	2 x GbE (RJ-45)	
Serial		1 x RS-232/422/485 (RS-232 w/ power) (DB-9)		
USB		8 x USB 3.2 Gen2 4 x USB 3.2		
Display		2 x DP++		
INTERNAL I/O	Serial	1 x RS-232/422/485 (RS-232 w/ power) (2.0mm pitch)		
	Audio	1 x Front Audio Header		
	SATA	2 x SATA 3.0 (up to 6Gb/s) 1 x SATA Power RAID 0/1		
	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	Infineon TPM1.2/2.0 (optional)		
POWER	Type	Single 12V +/-10% DC (CMS171) Wide Range 15~36V (CMS173)		
	Connector	DC-in Jack		
	Consumption	TBD		
	RTC Battery	CR2032 Coin Cell		
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise LTSC 2019 RS5		
	Linux	Ubuntu 20.04		
ENVIRONMENT	Temperature	Operating: -5 to 65°C	Storage: -40 to 85°C	
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH	
	MTBF	TBD		
MECHANISM	Dimensions	Mini-ITX Form Factor	170mm (6.7") x 170mm (6.7")	
	Height	PCB: 1.6mm		
		Top Side: TBD	Bottom Side: TBD	

PACKING LIST

1 CMS171/CMS173 motherboard	
1 Serial ATA data cable w/lock (Length: 500mm)	332-553001-005G
1 Serial ATA power Y cable (Length: 300mm, 1 x SATA POWER 15P*2 TO 4P HSG)	A81-002044-016G
1 COM port cable (Length: 250mm, 1 x COM port)	A81-015011-001G