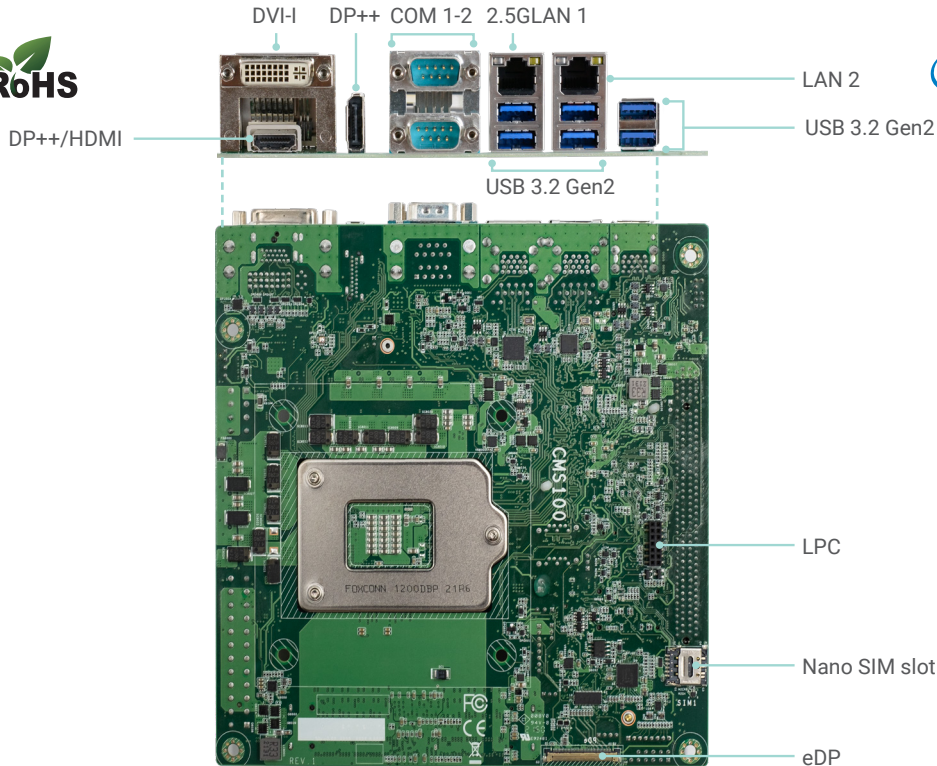


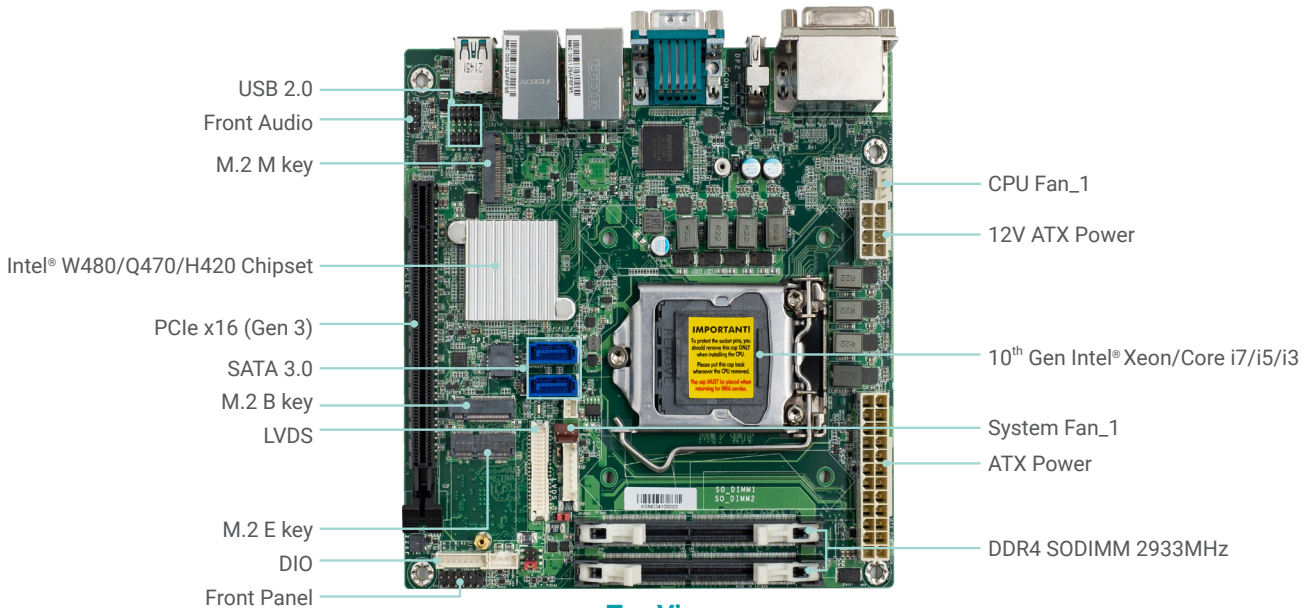
Desktop

CMS100

10th Gen Intel® Core™
Mini-ITX



Bottom View



Top View

*The photo above refers to CMS100-Q470E

KEY FEATURES



DDR4

2 DDR4 SODIMM up to 64GB



4K High Resolution

Supports 4K/ 2K resolution



Quad Displays

DP++ + HDMI + DVI-I + LVDS/eDP, or DP++ + DP++ + DVI-I + LVDS/eDP



Multiple Expansion

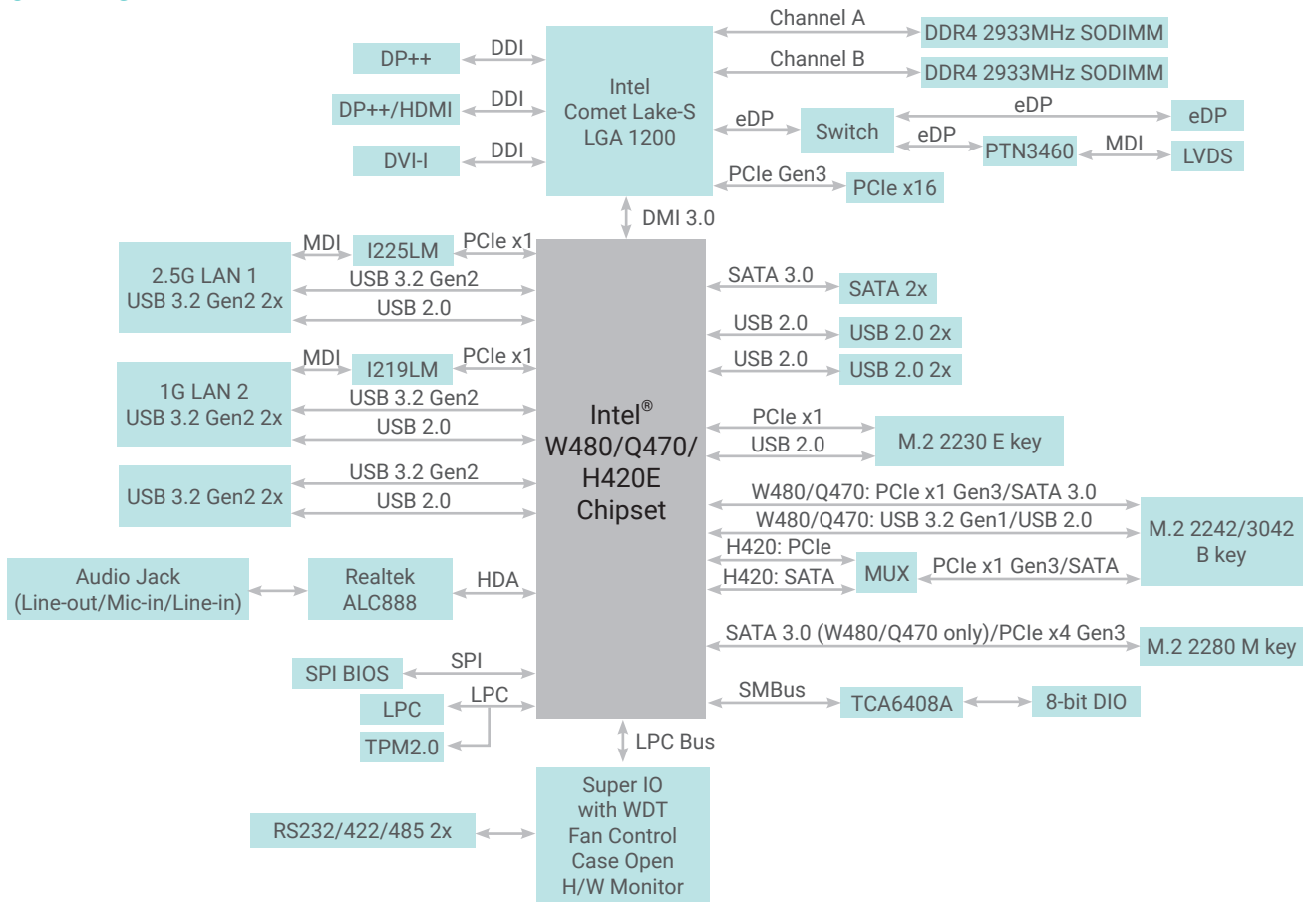
1 PCIe x16,
1 M.2 2230 E Key,
1 M.2 2280 M Key,
1 M.2 2242/3042 B Key



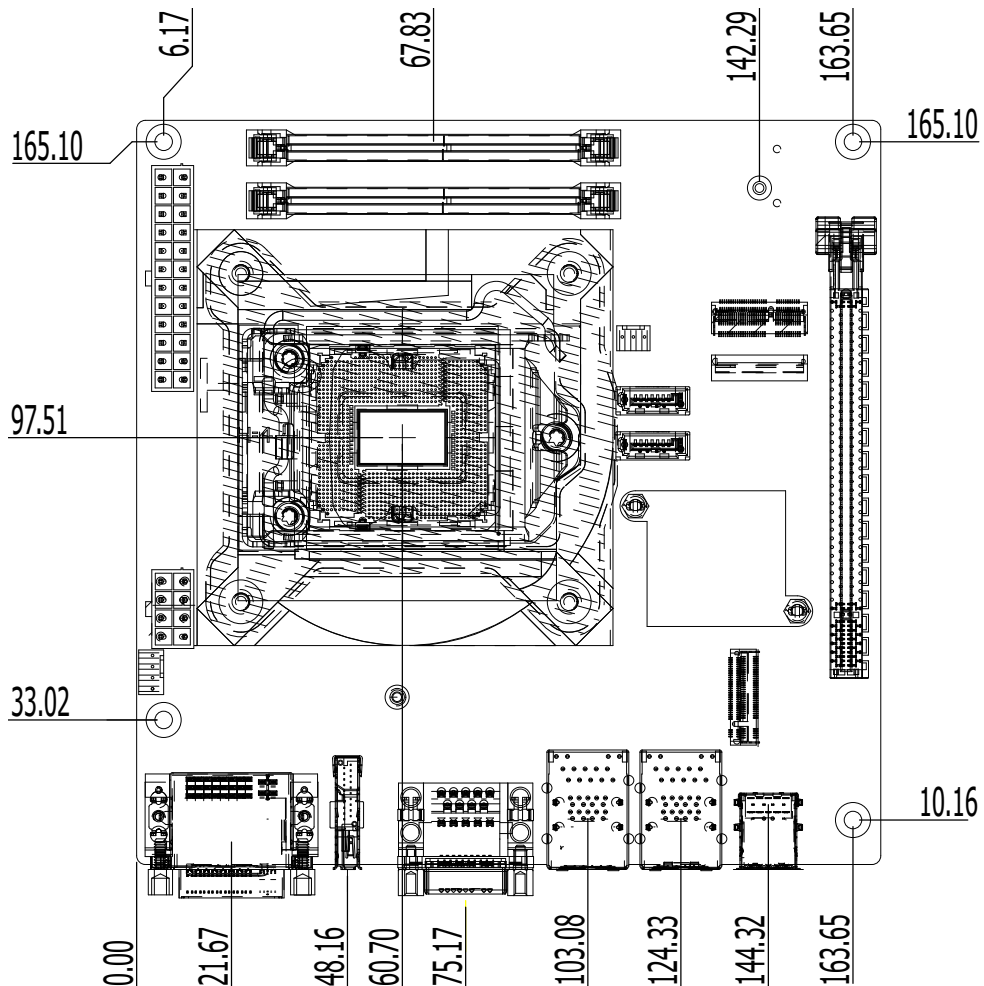
Rich I/O

1 Intel 2.5GbE,
1 Intel GbE, 2 COM,
up to 10 USB

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	10th Gen Intel® Xeon/Core™/Pentium/Celeron Processors, LGA 1200 Socket, TDP up to 125W Intel® Xeon W-1290E Processor (Core 10; Max speed 4.8GHz; TDP 95W) (ECC memory supported) (W480E only)* Intel® Xeon W-1270E Processor (Core 8; Max speed 4.8GHz; TDP 80W) (ECC memory supported) (W480E only)* Intel® Xeon W-1250E Processor (Core 6; Max speed 4.7GHz; TDP 80W) (ECC memory supported) (W480E only) Intel® Xeon W-1290TE Processor (Core 10; Max speed 4.5GHz; TDP 35W) Intel® Xeon W-1270TE Processor (Core 8; Max speed 4.4GHz; TDP 35W) Intel® Xeon W-1250TE Processor (Core 6; Max speed 3.8GHz; TDP 35W) Intel® Core i9-10900E Processor (Core 10; Max speed 4.7GHz; TDP 65W) Intel® Core i9-10900TE Processor (Core 10; Max speed 4.5GHz; TDP 35W) Intel® Core i7-10700E Processor (Core 8; Max speed 4.5GHz; TDP 65W) Intel® Core i7-10700TE Processor (Core 8; Max speed 4.4GHz; TDP 35W) Intel® Core i5-10500E Processor (Core 6; Max speed 4.2GHz; TDP 65W) Intel® Core i5-10500TE Processor (Core 6; Max speed 3.7GHz; TDP 35W) Intel® Core i3-10100E Processor (Core 4; Max speed 3.8GHz; TDP 65W) Intel® Core i3-10100TE Processor (Core 4; Max speed 3.6GHz; TDP 35W) Intel® Pentium G6400E Processor (Core 2; Max speed 3.8GHz; TDP 65W) Intel® Pentium G6400TE Processor (Core 2; Max speed 3.2GHz; TDP 35W) Intel® Celeron G5900E Processor (Core 2; Max speed 3.2GHz; TDP 65W) Intel® Celeron G5900TE Processor (Core 2; Max speed 3.0GHz; TDP 35W) *Note: 5-year life cycle support based on Intel IOTG roadmap.		
	Chipset	Intel® W480E/Q470E/H420E 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® HD Gen 9 Graphics	
	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	1 x DP++ 1 x HDMI 1.4b/DP++ 1 x LVDS/eDP 1 x DVI-I (DVI-D signal)	DP++: Resolution up to 4096x2304 @60Hz HDMI 1.4b: Resolution up to 4096x2160 @30Hz LVDS: resolution up to 1920x1200 @ 60Hz eDP: resolution up to 4096x2160 @ 60Hz DVI-I: resolution up to 1920x1200 @ 60Hz	
	Quad Displays	DP++ + DP++ + DVI-I + LVDS/eDP or DP++ + HDMI + DVI-I + LVDS/eDP		
EXPANSION	Interface	1 x PCIe x16 (Gen 3) 1 x M.2 2230 E Key (PCIe x1/USB 2.0) 1 x M.2 2280 M Key (PCIe x4 Gen3 or SATA, H420E supports PCIe x4 signal only) 1 x M.2 2242/3042 B Key (W480E/Q470E: PCIe x1 Gen3 or SATA, USB 3.2 Gen1/USB 2.0) 1 x Nano SIM slot		
AUDIO	Audio Codec	Realtek ALC888		
ETHERNET	Controller	1 x Intel® I225LM PCIe(10/100/1000/2.5G speeds) 1 x Intel® I219LM PHY(10/100/1000 speeds), support vPro/AMT		
REAR I/O	Ethernet	1 x 2.5GbE (RJ-45) 1 x GbE (RJ-45)		
	USB	W480E/Q470E: 6 x USB 3.2 Gen2 (dual type-A connector) H420E: 5 x USB 3.2 Gen1 (dual type-A connector)		
	Display	1 x DP++ 1 x HDMI 1.4b or 1 x DP++ 1 x DVI-I		
INTERNAL I/O	Serial	2 x RS-232/422/485 (2.0mm pitch)		
	USB	4 x USB 2.0 (2.0mm pitch)		
	Display	1 x LVDS header 1 x eDP connector		
	Audio	1 x Front Audio (2.0mm pitch)		
	SATA	2 x SATA 3.0 (up to 6Gb/s) 1 x SATA Power	RAID 0/1/5/10 (w/ M.2 Key-M/B slot + 2 SATA Conn., W480E/Q470E only)	
	DIO	1 x 8-bit DIO 1 x DIO Power		
	LPC	1 x LPC		
	SMBus	1 x SMBus		
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds		
SECURITY	TPM	fTPM(Default); dTPM(Opt.)		
POWER	Type	ATX		
	Connector	8-pin ATX 12V power 24-pin ATX power		
	Consumption	TBD		
	RTC Battery	CR2032 Coin Cell		
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 64-bit		
	Linux	Linux		

SPECIFICATION

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: 31.51 mm Bottom Side: 4.4 mm
CERTIFICATION	Certification	CE, FCC, RoHS

PACKING LIST

1 CMS100 motherboard	
1 Serial ATA data cable w/lock (Length: 500mm)	332-553001-005G
1 COM port cable (Length: 250mm, 1 x COM port)	A81-015011-001G
1 I/O shield	
- w/ icon DVI/DP/DP	A49-CMS100-000G
- w/ icon DVI/DP/HDMI	A49-CMS100-000G

OPTIONAL ITEMS

COM port cable (Length: 250mm, 1 x COM ports)	A81-015011-001G
Serial ATA data & power cable w/lock (Length: 300mm)	A81-002101-016G
Serial ATA power Y cable (Length: 300mm, 1 x SATA POWER 15P*2 TO 4P HSG)	A81-002044-016G
Thermal solution (For 35W, Height: 37.3mm)	A71-103004-000G
Thermal solution (For 65W, Height: 72.8mm)	A71-103005-000G
Thermal solution (For 125W, Height: 68mm)	761-103001-000G
DT122 Chassis	761-DT1220-200G