

WM120-CMS171 WM120-CMS173

Q470E

10th Gen Intel® Core™
Wallmount Desktop Box IPC



KEY FEATURES



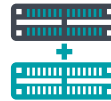
Industrial Grade Components

Supports long life cycle and rugged components



One-Side Rich I/O

2 Intel GbE, 8 USB 3.2 Gen2, 4 USB 3.2, 2 DP++



Multiple Expansions

1 PCIe x16, 1 M.2 M key, 1 M.2 E key, 1 M.2 B key



WiFi 6 Communication

Support WiFi 6 module



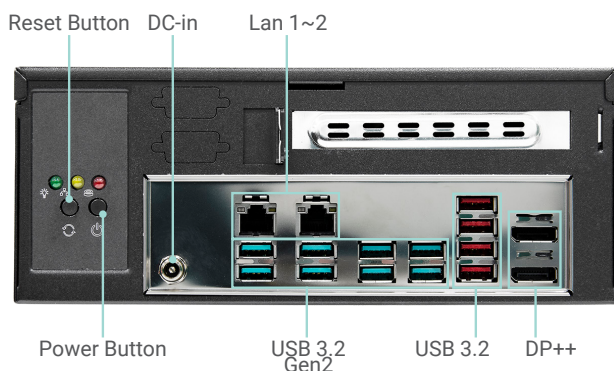
5G Communication

Support 5G-NR module



IoT Solutions
Alliance

PANEL

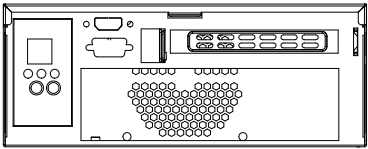


Front View

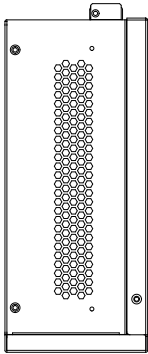


Rear View

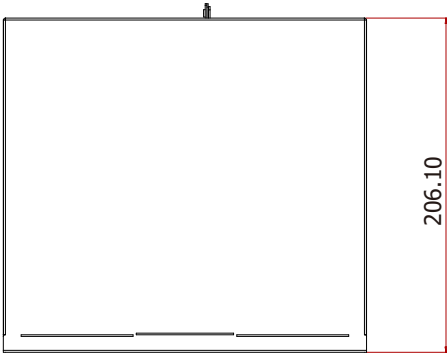
DIMENSIONS



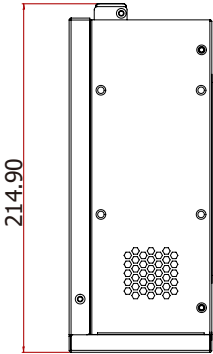
Front View



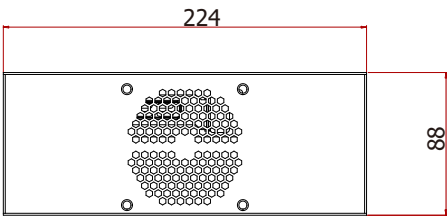
Left View



Top View



Right View



Rear View

SPECIFICATION

Model Name		WM120-CMS171	WM120-CMS173
SYSTEM	Processor	10th Gen Intel® Xeon/Core™/Pentium/Celeron Processors, LGA 1200 Socket 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)	
	Chipset	Intel® Q470E Chipset	Intel® Q470E Chipset
	Memory	DDR4 32GB	DDR4 32GB
	BIOS	AMI SPI 128Mbit	AMI SPI 128Mbit
	Controller	Intel® HD Gen 9 Graphics	Intel® HD Gen 9 Graphics
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 Decode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9	OpenGL 4.5, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Decode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9
	Display	2 x DP++ DP1.2: resolution up to 4096x2304@60Hz	2 x DP++ DP1.2: resolution up to 4096x2304@60Hz
	Dual Displays	2 x DP++	2 x DP++
	Internal	1 x 2.5" SATA 3.0 1TB SSD 1 x M.2 2280 M Key (PCIe x4/SATA) (support NVMe and Intel® Optane memory)	1 x 2.5" SATA 3.0 1TB SSD 1 x M.2 2280 M Key (PCIe x4/SATA) (support NVMe and Intel® Optane memory)
STORAGE	Internal	1 x 2.5" SATA 3.0 1TB SSD 1 x M.2 2280 M Key (PCIe x4/SATA) (support NVMe and Intel® Optane memory)	1 x 2.5" SATA 3.0 1TB SSD 1 x M.2 2280 M Key (PCIe x4/SATA) (support NVMe and Intel® Optane memory)
EXPANSION	Interface	1 x PCIe x16 (Gen3 x8signal, Option) 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 Note, 65W CPU config. does not support expansion card. 35W CPU config. supports one expansion card via riser card	1 x PCIe x16 (Gen3 x8signal, Option) 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 Note, 65W CPU config. does not support expansion card. 35W CPU config. supports one expansion card via riser card
	Audio Codec	Realtek ALC888	Realtek ALC888
AUDIO	Audio Codec	Realtek ALC888	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)	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)
LED	Indicators	1 x Power LED 1 x HDD LED	1 x Power LED 1 x HDD LED
I/O	Ethernet	2 x GbE (RJ-45)	2 x GbE (RJ-45)
	Display	2 x DP++	2 x DP++
	USB	8 x USB 3.2 Gen2 4 x USB 3.2	8 x USB 3.2 Gen2 4 x USB 3.2
	Buttons	1 x Power button 1 x Reset button	1 x Power button 1 x Reset button
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	Infineon TPM1.2/2.0 (optional)	Infineon TPM1.2/2.0 (optional)
POWER	Type	Lockable DC jack, co-lay with 4pin connector 12VDC in	Lockable DC jack, co-lay with 4pin connector 15V to 36VDC in
	Connector	DC-in Jack	DC-in Jack
	Consumption	Idle: i7-10700E 65W: 19V @ 0.98A (18.62W) Max: i7-10700E 65W: 19V @ 9.8A (186.2W)	Idle: i7-10700E 65W: 19V @ 0.98A (18.62W) Max: i7-10700E 65W: 19V @ 9.8A (186.2W)
	Supply	CR2032 Coin Cell	CR2032 Coin Cell
COOLING	Fan	1 x 8cm System Fan, with replaceable air filter	1 x 8cm System Fan, with replaceable air filter
OS SUPPORT	Microsofts	Windows 10 IoT Enterprise 2019	Windows 10 IoT Enterprise 2019
ENVIRONMENT	Operating Temperature	-5° to 45° C	-5° to 45° C
	Storage Temperature	-30 to 60°C with RTC Battery; -40 to 85°C without RTC Battery	-30 to 60°C with RTC Battery; -40 to 85°C without RTC Battery
	Relative Humidity	5 to 95% RH (non-condensing)	5 to 95% RH (non-condensing)

SPECIFICATION

Model Name		WM120-CMS171	WM120-CMS173
MECHANICAL	Construction	Sheet Metal	Sheet Metal
	Mounting	Wall mount	Wall mount
	Dimensions (W x H x D)	224 x 88 x 206mm	224 x 88 x 206mm
	Weight	2.47kg	2.47kg
	Color	Black	Black
STANDARDS AND CERTIFICATIONS	Shock	Operating: 3G Non-operating: 5G	Operating: 3G Non-operating: 5G
	Vibration	Operating: 1G Non-operating: 3G	Operating: 1G Non-operating: 3G
	Package Drop	ISTA Project 1A	ISTA Project 1A
	Certification	CE, FCC Class A, UL, RoHS (To be applied), UKCA	CE, FCC Class A, UL, RoHS (To be applied), UKCA

ORDERING INFORMATION

Model Name	Part Number	Description
WM120-CMS171	750-WM1200-000G	WM120-CMS, CMS171-Q470, Mini-ITX Wallmount System, 12VDC in, F/G System RoHS
WM120-CMS173	750-WM1200-100G	WM120-CMS, CMS173-Q470, Mini-ITX Wallmount System, 15 to 36VDC in, F/G System RoHS

OPTIONAL ITEMS

1 COM port cable (Length: 250mm, 1 x COM port)	A81-015011-001G
USB 2.0 port cable (Length: 350/398mm)	A81-001066-016G
USB 3.1 Gen1 port cable (Length: 320mm)	A81-001052-023G
USB 3.2 Gen2 port cable (Length: 350mm)	A81-001075-017G
DP to HDMI Dongle	612-D2H13M-000G

PACKING LIST

1 WM120-CMS System Unit
1 CPU Cooler (65W)
1 SATA data with power cable (7 + 15P) (Length: 220mm)
4 HDD Screws
1 System Fan