

# EC543-CS Q370

8th/9th Gen Intel® Core™  
Modular-Designed Embedded System



## KEY FEATURES



### DDR4

DDR4 SODIMM up to 64GB



### PoE

Support 4 PoE (EC543-CS6G86E-Q)



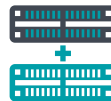
### Three Independent Displays

1 VGA + 2 HDMI/DP++ (auto detection)



### Support 5G Communication

Support 5G communication



### Multiple Expansion

3 PCIe, 1 PCI and 3 M.2 slots support NVMe

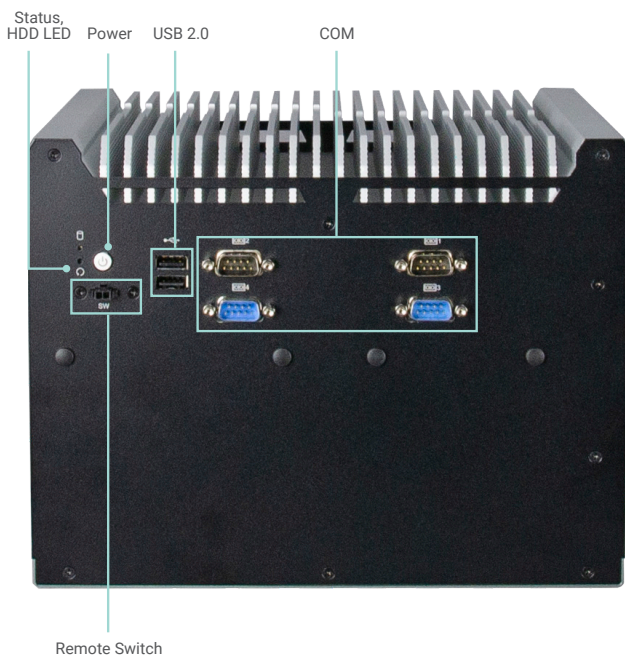


### Wide-Temperature

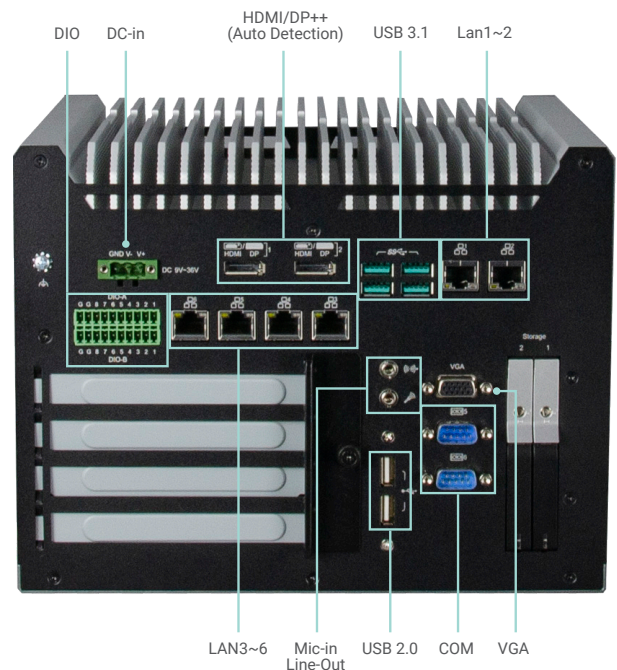
Operating Temperature: -20 to 60°C



## PANEL



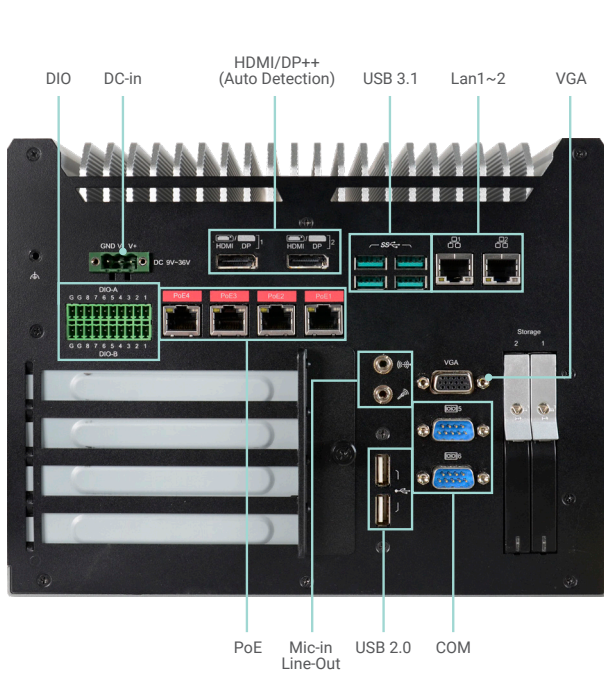
Front View



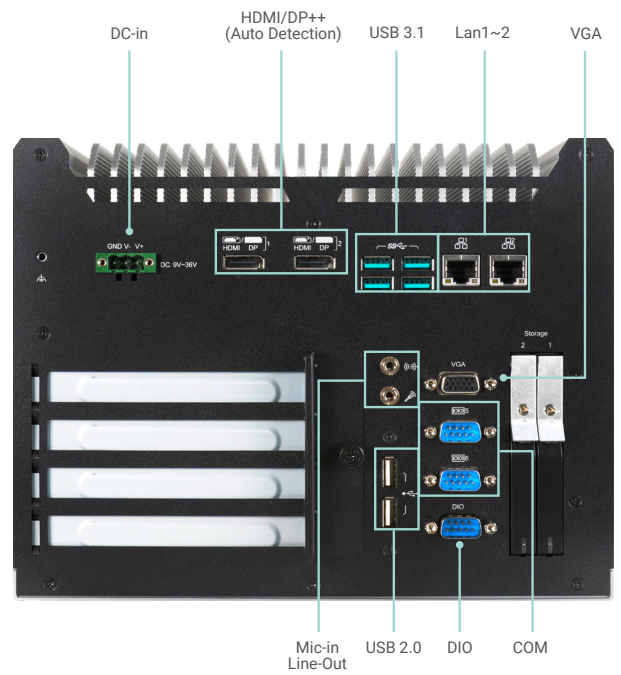
Rear View

EC543-CS6G86-Q

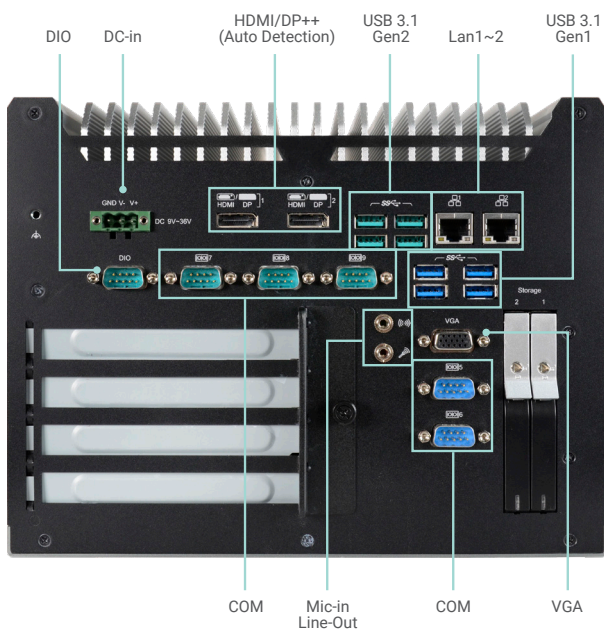
# PANEL



**Rear View**  
EC543-CS6G86E-Q

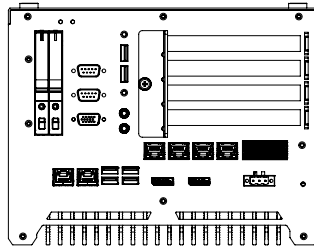


**Rear View**  
EC543-CS6881-Q

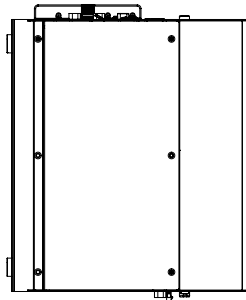


**Rear View**  
EC543-CS98A1-Q

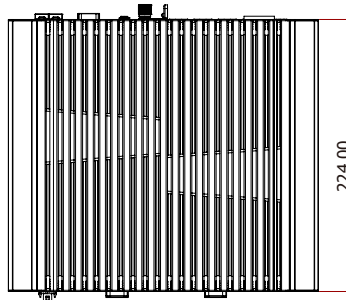
## DIMENSIONS



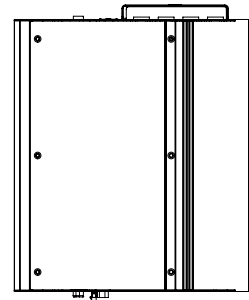
Front View



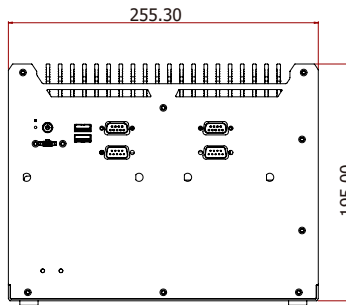
Left View



224.00



Right View

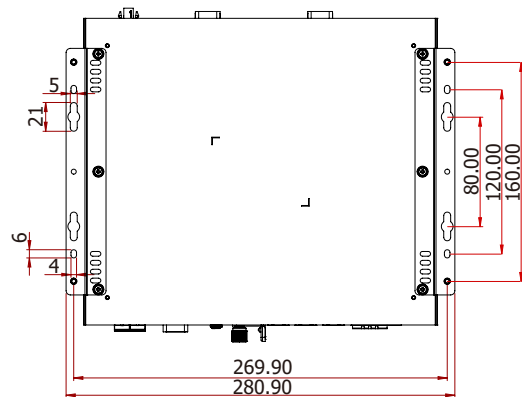
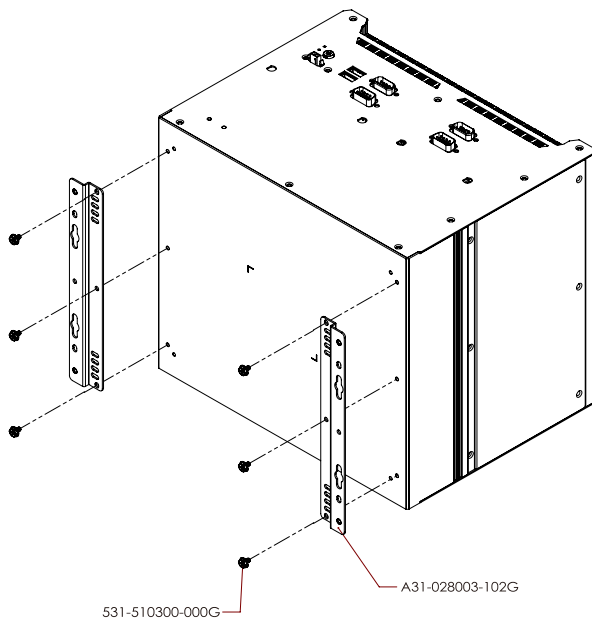


Rear View

255.30

195.00

## WALL MOUNTING



## SPECIFICATION

<b>SYSTEM</b>	<b>Processor</b>	8th/9th Generation Intel® Core™ Processors, LGA 1151 Intel® Core™ i7-9700TE , Octa Cores, 12M Cache, up to 3.8 GHz, 35W Intel® Core™ i5-9500TE , Hexa Cores, 9M Cache, up to 3.6 GHz), 35W Intel® Core™ i3-9100TE, Quad Cores, 6M Cache, up to 3.2 GHz, 35W Intel® Core™ i7-8700T Processor, Hexa Core, 12M Cache, 2.4GHz (4GHz), 35W Intel® Core™ i5-8500T Processor, Hexa Core, 9M Cache, 2.1GHz (3.5GHz), 35W Intel® Core™ i3-8100T Processor, Quad Core, 6M Cache, 3.1GHz, 35W Intel® Pentium® Processor G5400T, Dual Core, 4M Cache, 3.1GHz, 35W Intel® Celeron® Processor G4900T, Dual Core, 2M Cache, 3.1GHz, 35W	
	<b>Chipset</b>	Intel® Q370 Chipset	
	<b>Memory</b>	Two 260-pin DDR4 2400/2666MHz SODIMM up to 64GB	
	<b>BIOS</b>	AMI SPI 128Mbit	
	<b>GRAPHICS</b>	<b>Controller</b>	Intel® HD Graphics
<b>Feature</b>		OpenGL up to 5.0, DirectX 11, OpenCL 2.1 HW Decode: HEVC/H.265, H.264, M/JPEG, MPEG2, VC1/WMV9, VP8 (8-bit), VP9 (10-bit) HW Encode: HEVC/H.265, M/JPEG, MPEG2, VP8	
<b>Display</b>		1 x VGA 2 x HDMI/DP++ (auto detection)	VGA: resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 4096x2160 @ 30Hz DP++: resolution up to 4096x2304 @ 60Hz
<b>Triple Displays</b>		VGA + 2 x HDMI/DP++ (auto detection)	
<b>STORAGE</b>	<b>Interface</b>	2 x 2.5" SATA 3.0 Drive Bay support RAID 0/1	
<b>EXPANSION</b>	<b>Interface</b>	1 x M.2 2230 E key (PCIe/USB 2.0) 1 x M.2 2280 M key (PCIe x4 NVMe/SATA) 1 x M.2 3042/3052 B key (PCIe/USB 3.0) 1 x PCI slot 1 x PCIe x16 @Gen3, x16 slot 1 x PCIe x4 @Gen3, x8 slot 1 x PCIe x1 @Gen3, x4 slot	
<b>AUDIO</b>	<b>Audio Codec</b>	ALC888	
<b>ETHERNET</b>	<b>Controller</b>	1 x Intel® I210AT PCIe (10/100/1000Mbps) 1 x Intel® I219LM with iAMT11.0 PCIe (10/100/1000Mbps) (only Core i7/i5 supports iAMT)	
	<b>Interface</b>	RJ-45	
<b>LED</b>	<b>Indicators</b>	1 x Status LED 1 x HDD LED	
<b>FRONT I/O</b>	<b>Serial</b>	4 x RS-232/422/485 (DB-9)	
	<b>USB</b>	2 x USB 2.0 (type A)	
	<b>Buttons</b>	1 x Power button 1 x Reset button	
	<b>Antenna</b>	4 x Antenna hole (WiFi)	
<b>REAR I/O</b>	<b>Ethernet/PoE</b>	-EC543-CS6G86E-Q 2 x GbE (RJ-45) 4 x PoE -EC543-CS6G86-Q 6 x GbE (RJ-45) -EC543-CS6881-Q/EC543-CS98A1-Q 2 x GbE (RJ-45)	
	<b>Serial</b>	-EC543-CS6881-Q/EC543-CS6G86E-Q/EC543-CS6G86-Q 2 x RS232 -EC543-CS98A1-Q 3 x RS232/422/485 2 x RS232	
	<b>USB</b>	-EC543-CS6881-Q/EC543-CS6G86E-Q/EC543-CS6G86-Q 4 x USB 3.1(Gen.2) 2 x USB2.0 -EC543-CS98A1-Q 4 x USB 3.1(Gen.2) 4 x USB 3.1(Gen.1)	
	<b>DIO</b>	-EC543-CS6G86E-Q/EC543-CS6G86-Q 16 bits DIO -EC543-CS6881-Q/EC543-CS98A1-Q 8 bits DIO	
	<b>Display</b>	1 x VGA 2 x HDMI/DP++ (auto detection)	
	<b>Audio</b>	1 x Line-out 1 x Mic-in	
	<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>	TPM 2.0	
<b>POWER</b>	<b>Type</b>	Wide range 9~36V	
	<b>Connector</b>	3-pole terminal block 2-pin power extension switch connector	

## SPECIFICATION

OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 64 Bit
	Linux	Linux (available upon request)
ENVIRONMENT	Operating Temperature	-20 to 60°C (SSD or mSATA)
	Storage Temperature	-20 to 85°C
	Relative Humidity	5 to 95% RH (non-condensing)
MECHANICAL	Construction	Metal + Aluminum
	Mounting	Wall mount
	Dimensions (W x H x D)	255.3 x 195 x 224mm
	Weight	5.4 kg
STANDARDS AND CERTIFICATIONS	Shock	Half sine wave 3G, 11ms, 3 shock per axis
	Vibration	IEC68-2-64
	Certifications	CE, FCC Class A, UKCA

## SYSTEM MODELS

P/N	Model Name	CPU	COM	USB 3.1	USB 2.0	LAN	PoE	DIO (DB9, 8bit)	DIO (terminal block, 16bit)
750-EC5430-100G	EC543-CS6G86-Q	-	6	4	4	6	0	-	1
750-EC5430-400G	EC543-CS6G86-Q	i5-8500T							
750-EC5430-800G	EC543-CS6G86-Q	i7-8700T							
750-EC5430-000G	EC543-CS6G86E-Q	-				2	4		
750-EC5430-600G	EC543-CS6G86E-Q	i5-8500T							
750-EC5430-900G	EC543-CS6G86E-Q	i7-8700T							
750-EC5430-500G	EC543-CS6881-Q	-	9	8	2	0	1	-	
750-EC5430-300G	EC543-CS6881-Q	i5-8500T							
750-EC5430-700G	EC543-CS6881-Q	i7-8700T							
750-EC5430-200G	EC543-CS98A1-Q	-							
750-EC5430-B00G	EC543-CS98A1-Q	i5-8500T							
750-EC5430-A00G	EC543-CS98A1-Q	i7-8700T							
750-EC5430-C00G	EC543-CS98A1-Q	i7-9700TE							

\*All above configurations are equipped with Q370 PCH, remote switch and support 2x2.5" external removable drive bay, 4 expansion slot (1x PCIe x16, 1x PCIe x4, 1x PCIe x1, 1x PCI), 3xM.2 slots(1x M.2 2280 M key, 1x M.2 2230 E key, 1x M.2 3042/3052 B key), 2xHDMI/DP(Auto) , 1xVGA and 9V~36Vdc input

## ORDERING INFORMATION

Model Name	Part Number	Description
EC543-CS6G86E-Q	750-EC5430-000G	EC543-CS:EC543-CS6G86E-Q, Fanless, CS263,Q370, 6 COM, 16 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 4 PoE, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6G86-Q	750-EC5430-100G	EC543-CS:EC543-CS6G86-Q, Fanless, CS263,Q370, 6 COM, 16 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 6 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS98A1-Q	750-EC5430-200G	EC543-CS:EC543-CS98A1-Q, Fanless, CS263,Q370, 9 COM, 8 DIO, 10 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6881-Q	750-EC5430-300G	EC543-CS:EC543-CS6881-Q, Fanless, CS263,Q370, i5-8500T CPU, 6 COM, 8 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6G86-Q	750-EC5430-400G	EC543-CS:EC543-CS6G86-Q, Fanless, CS263,Q370, i5-8500T CPU, 6 COM, 16 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 6 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6881-Q	750-EC5430-500G	EC543-CS:EC543-CS6881-Q, Fanless, CS263,Q370, 6 COM, 8 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6G86E-Q	750-EC5430-600G	EC543-CS:EC543-CS6G86E-Q, Fanless, CS263,Q370, i5-8500T CPU, 6 COM, 16 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 4 PoE, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6881-Q	750-EC5430-700G	EC543-CS:EC543-CS6881-Q, Fanless, CS263,Q370, i7-8700T CPU, 6 COM, 8 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6G86-Q	750-EC5430-800G	EC543-CS:EC543-CS6G86-Q, Fanless, CS263,Q370, i7-8700T CPU, 6 COM, 16 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 6 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS6G86E-Q	750-EC5430-900G	EC543-CS:EC543-CS6G86E-Q, Fanless, CS263,Q370, i7-8700T CPU, 6 COM, 16 DIO, 8 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 4 PoE, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS98A1-Q	750-EC5430-A00G	EC543-CS:EC543-CS98A1-Q, Fanless, CS263,Q370, i7-8700T CPU, 9 COM, 8 DIO, 10 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS98A1-Q	750-EC5430-B00G	EC543-CS:EC543-CS98A1-Q, Fanless, CS263,Q370, i5-8500T CPU, 9 COM, 8 DIO, 10 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS
EC543-CS98A1-Q	750-EC5430-C00G	EC543-CS:EC543-CS98A1-Q, Fanless, CS263,Q370, i7-9700TE CPU, 9 COM, 8 DIO, 10 USB, 2 HDMI/DP, 1 VGA, 2 LAN, 1 Line-out, 1 Mic-in, 3 PCIe, 1 PCI, DC 9~36V input, TPM 2.0, F/G SYSTEM RoHS

## PACKING LIST

1 EC543-CS system unit
1 M.2 slot screws
1 terminal block 3-pole for DC input
1 cable with 2 wire stripped and tinned to DC jack