

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)



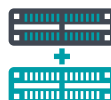
Three Independent Displays

1 VGA + 2 DP++



Support 5G Communication

Support 5G communication



Multiple Expansion

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



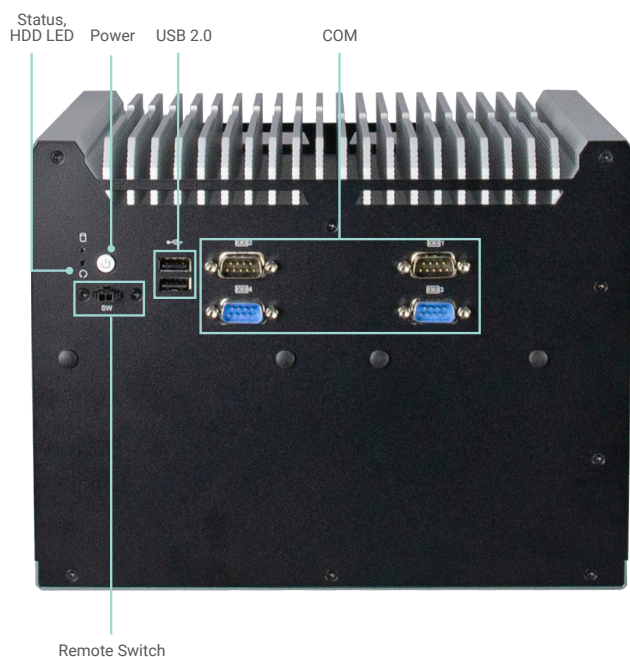
Wide-Temperature

Operating Temperature: -20 to 60°C

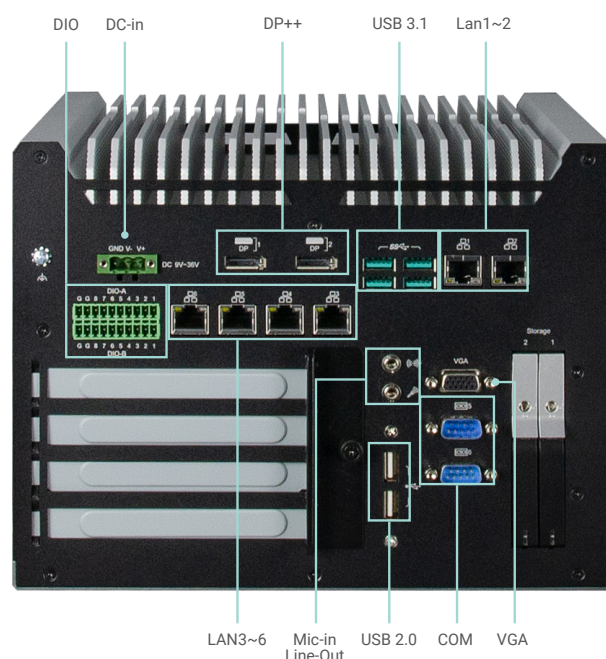


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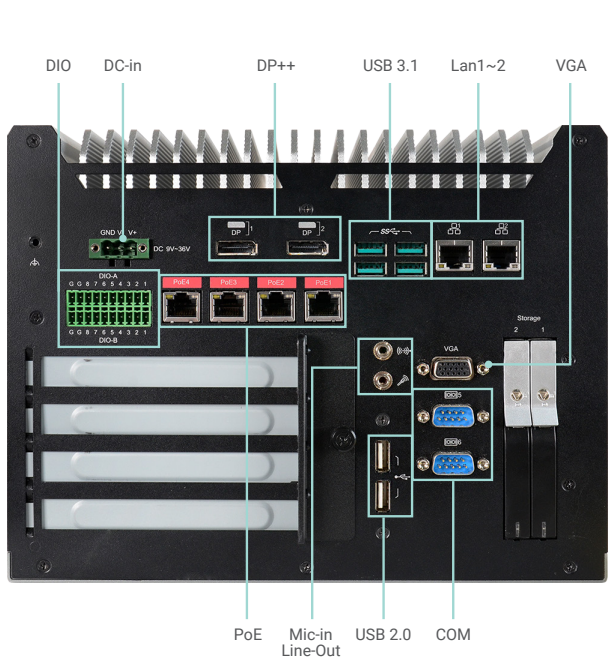
Front View



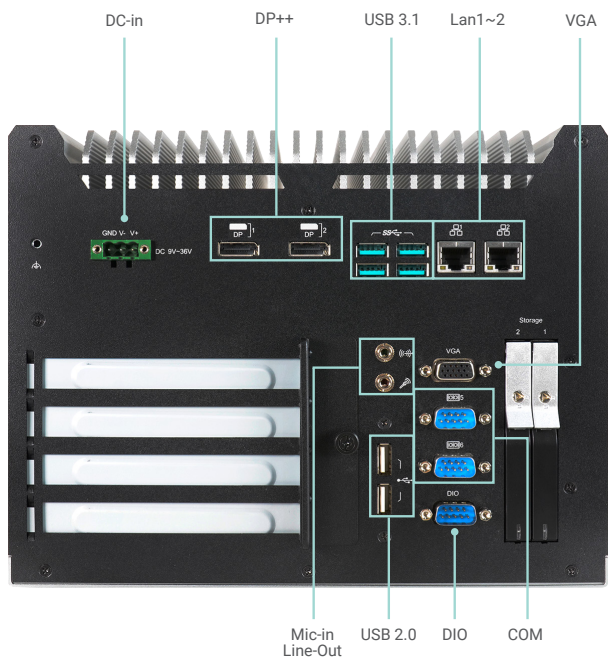
Rear View

EC543-CS6G86-Q

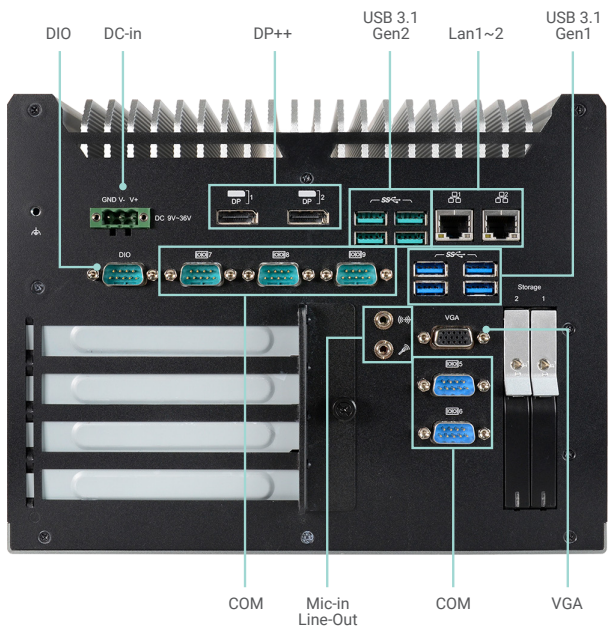
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Rear View
EC543-CS6G86E-Q



Rear View
EC543-CS6881-Q



Rear View
EC543-CS98A1-Q

SPECIFICATION

SYSTEM	Processor	8th/9th Generation Intel® CoreTM 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			
	Chipset	Intel® Q370 Chipset			
	Memory	Two 260-pin DDR4 2400/2666MHz SODIMM up to 64GB			
	BIOS	AMI SPI 128Mbit			
GRAPHICS	Controller	Intel® HD Graphics			
	Feature	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			
	Display	1 x VGA 2 x DP++	VGA: resolution up to 1920x1200 @ 60Hz DP++: resolution up to 4096x2304 @ 60Hz		
	Triple Dis-plays	VGA + 2 DP++			
STORAGE	Interface	2 x 2.5" SATA 3.0 Drive Bay support RAID 0/1			
EXPANSION	Interface	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			
AUDIO	Audio Codec	ALC888			
ETHERNET	Controller	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)			
	Interface	RJ-45			
LED	Indicators	1 x Status LED 1 x HDD LED			
FRONT I/O	Serial	4 x RS-232/422/485 (DB-9)			
	USB	2 x USB 2.0 (type A)			
	Buttons	1 x Power button 1 x Reset button			
	Antenna	4 x Antenna hole (WiFi)			
REAR I/O	Ethernet/ PoE	EC543-CS6G86E-Q	EC543-CS6G86-Q	EC543-CS6881-Q	EC543-CS98A1-Q
		2 x GbE (RJ-45) 4 x PoE	6 x GbE (RJ-45)	2 x GbE (RJ-45)	2 x GbE (RJ-45)
	Serial	EC543-CS6G86E-Q	EC543-CS6G86-Q	EC543-CS6881-Q	EC543-CS98A1-Q
		2 x RS232	2 x RS232	2 x RS232	3 x RS232/422/485 2 x RS232
	USB	EC543-CS6G86E-Q	EC543-CS6G86-Q	EC543-CS6881-Q	EC543-CS98A1-Q
		4 x USB 3.1(Gen.2) 2 x USB2.0	4 x USB 3.1(Gen.2) 2 x USB2.0	4 x USB 3.1(Gen.2) 2 x USB2.0	4 x USB 3.1(Gen.2) 4 x USB 3.1(Gen.1)
	DIO	EC543-CS6G86E-Q	EC543-CS6G86-Q	EC543-CS6881-Q	EC543-CS98A1-Q
		16 bits DIO	16 bits DIO	8 bits DIO	8 bits DIO
	Display	1 x VGA 2 x DP++			
Audio	1 x Line-out 1 x Mic-in				
WATCHDOG TIMER	Output & Interval	System reset, programmable via software from 1 to 255 seconds			
SECURITY	TPM	TPM 2.0			
POWER	Type	Wide range 9~36V			
	Connector	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 2x 2.5" external removable drive bay, 4 expansion slot (1x PCIe x16, 1x PCIe x4, 1x PCIe x1, 1x PCI), 3x M.2 slots (1x M.2 2280 M key, 1x M.2 2230 E key, 1x M.2 3042/3052 B key), 2x DP++, 1x VGA 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 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 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 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 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 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 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 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 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 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 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 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 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 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