



6th/7th Gen Intel® Core™ Processor  
Modular-Designed Embedded System



## EC510/EC511-SD

Q170

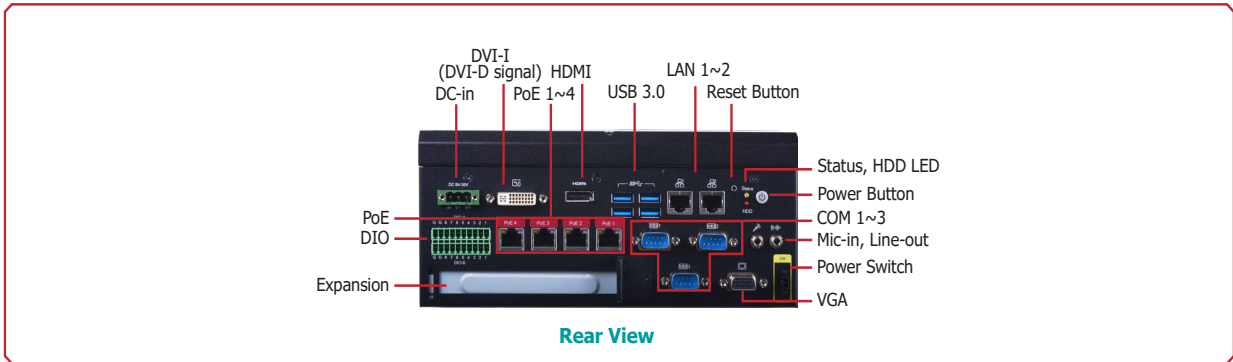


### ► Features

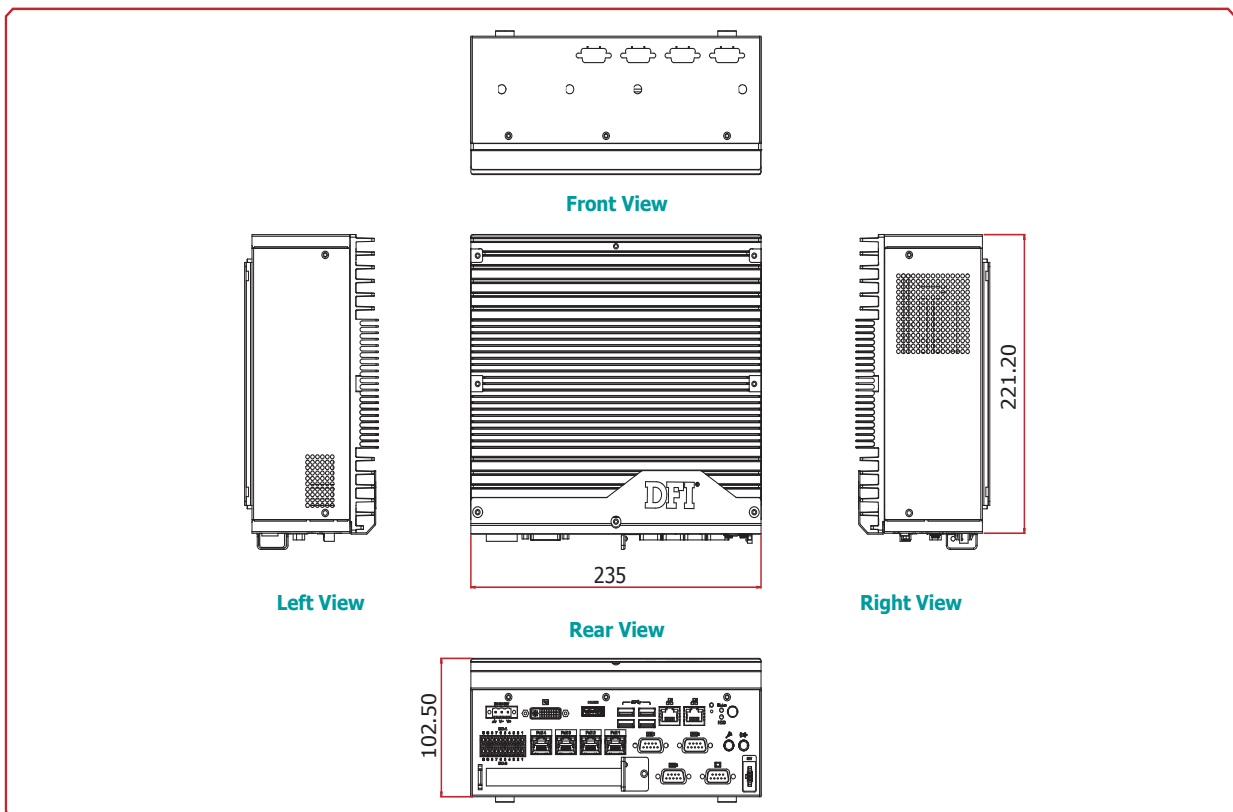
- Supports DDR4 SODIMM up to 32GB
- Three independent displays: 1 VGA + 1 DVI/HDMI + 1 HDMI/DP
- Compact and cost-effective solution
- Supports 4 PoE GLAN ports and one expansion slot
- 2 Mini PCIe slots support mSATA and Wi-Fi modules



### ► Panel



### ► Dimensions





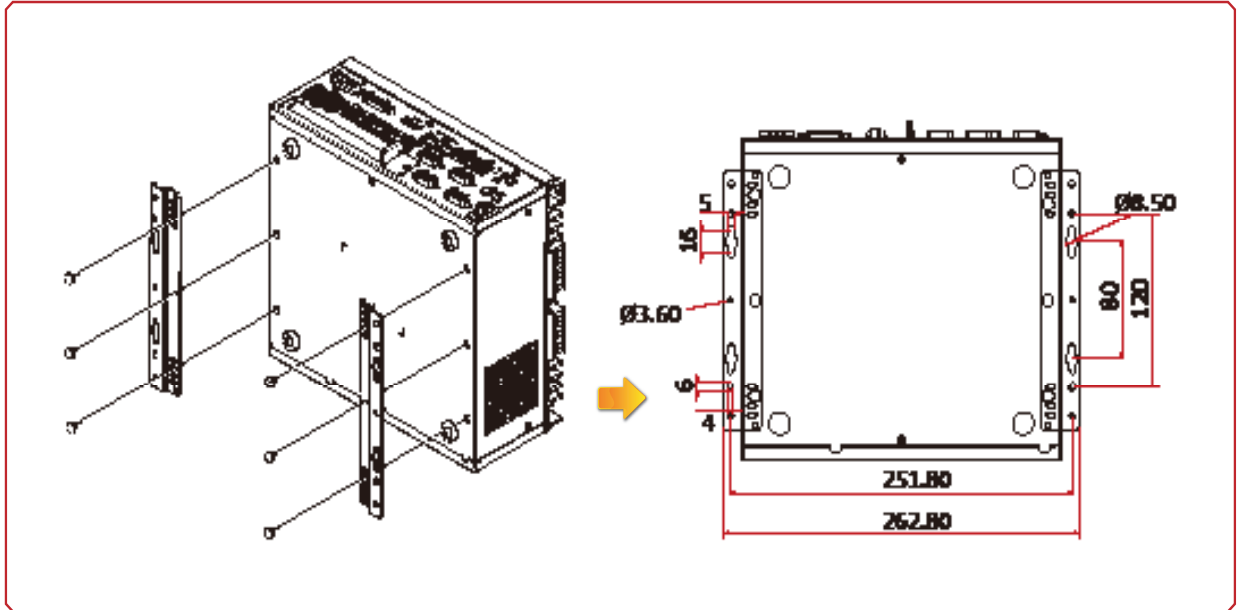
**Specifications**

<b>SYSTEM</b>	<b>Processor</b>	6th/7th Generation Intel® Core™ Processors, LGA 1151 Socket Intel® Core™ i7-6700TE, Quad Core, 8M Cache, 2.4GHz (3.4GHz), 35W Intel® Core™ i5-6500TE, Quad Core, 6M Cache, 2.3GHz (3.3GHz), 35W Intel® Core™ i3-6100TE, Dual Core, 4M Cache, 2.7GHz, 35W Intel® Core™ i7-7700T, Quad Core, 8M Cache, 2.9GHz (3.8GHz), 35W Intel® Core™ i5-7500T, Quad Core, 6M Cache, 2.7GHz (3.5GHz), 35W Intel® Core™ i3-7101TE, Dual Core, 3M Cache, 3.4GHz, 35W	
	<b>Chipset</b>	Intel® Q170 Chipset	
	<b>Memory</b>	Two 260-pin SODIMM up to 32GB	Dual Channel DDR4 1866/2133MHz
	<b>BIOS</b>	Insyde SPI 128Mbit	
	<b>GRAPHICS</b>	<b>Controller</b>	Intel® HD Gen 9 Graphics
<b>Feature</b>		OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9	
<b>Display</b>		1 x VGA 1 x DVI (DVI-D signal)/HDMI (HDMI available upon request) 1 x HDMI/DP (DP available upon request)	VGA: resolution up to 1920x1200 @ 60Hz DVI: resolution up to 2560x1600 @ 60Hz HDMI: resolution up to 4096x2160 @ 24Hz or 2560x1600 @ 60Hz DP: resolution up to 4096x2304 @ 60Hz
<b>Triple Displays</b>		VGA + DVI (DVI-D signal) + HDMI VGA + DVI (DVI-D signal) + DP VGA + 2 HDMI VGA + HDMI + DP	
<b>STORAGE</b>	<b>External</b>	2 x 2.5" SATA 3.0 Drive Bay (RAID 0/1)	
<b>EXPANSION</b>	<b>Interface</b>	1 x Full-size Mini PCIe (PCIe/USB)	1 x PCI (EC510-SD)
		1 x Half-size Mini PCIe (USB/mSATA)	1 x PCIe x16 (EC511-SD)
<b>ETHERNET</b>	<b>Controller</b>	1 x Intel® I211AT PCIe (10/100/1000Mbps) 4 x Intel® I210IT PCIe (10/100/1000Mbps) 1 x Intel® I219V with iAMT11.0 PCIe (10/100/1000Mbps) (only Core i7/i5 supports iAMT)	
<b>LED</b>	<b>Indicators</b>	1 x Power LED 1 x HDD LED	
<b>REAR I/O</b>	<b>Ethernet</b>	6 x GbE (RJ-45) or 2 x GbE (RJ-45) + 4 x PoE GbE (RJ-45) (supports IEEE 802.3af, 15.4W per port)	
	<b>Serial</b>	2 x RS-232/422/485 (DB-9) (RS-232 with power) 1 x RS-232/422/485 (DB-9)	
	<b>USB</b>	4 x USB 3.0 (type A)	
	<b>Display</b>	1 x VGA 1 x DVI (DVI-D signal)/HDMI (HDMI available upon request) 1 x HDMI/DP (DP available upon request)	
	<b>Audio</b>	1 x Line-out 1 x Mic-in	
	<b>DIO</b>	1 x 16-bit DIO	
	<b>Buttons</b>	1 x Power Button 1 x Reset Button	
	<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds
<b>POWER</b>	<b>Type</b>	Wide Range 9~36V	
	<b>Connector</b>	3-pole Terminal Block	
<b>OS SUPPORT</b>		Windows 7 (32/64-bit) Windows 10	Windows 8.1 (64-bit)
<b>MECHANISM</b>	<b>Construction</b>	Aluminum + SGCC	
	<b>Mounting</b>	Wall Mount	
	<b>Dimensions (W x H x D)</b>	235mm x 102.5mm x 222mm (W x H x D)	
	<b>Weight</b>	4.1 kg	
<b>ENVIRONMENT</b>	<b>Operating Temperature</b>	0 to 50°C (SSD or mSATA-mini, with 0.7m/s air flow)	
	<b>Storage Temperature</b>	-20 to 85°C	
	<b>Relative Humidity</b>	5 to 95% RH (non-condensing)	
<b>STANDARDS AND CERTIFICATIONS</b>	<b>Shock</b>	Half sine wave 3G, 11ms, 3 shock per axis	
	<b>Vibration</b>	IEC68-2-64	
	<b>Certification</b>	CE, FCC Class A, RoHS	



**EC510/EC511-SD**

▶ **Wall Mounting**





► **Ordering Information**

Model Name	Part Number	Description
<b>EC510-SD3G46E</b>	750-EC5101-000G	Fanless, Q170, 1 VGA, 1 DVI, 1 HDMI, 2 LAN, 4 PoE, 3 COM, 4 USB, 1 PCI, RoHS
<b>EC510-SD3G46</b>	750-EC5101-100G	Fanless, Q170, 1 VGA, 1 DVI, 1 HDMI, 6 LAN, 3 COM, 4 USB, 1 PCI, RoHS
<b>EC511-SD3G46E</b>	750-EC5111-000G	Fanless, Q170, 1 VGA, 1 DVI, 1 HDMI, 2 LAN, 4 PoE, 3 COM, 4 USB, 1 PCIe x16, RoHS
<b>EC511-SD3G46</b>	750-EC5111-100G	Fanless, Q170, 1 VGA, 1 DVI, 1 HDMI, 6 LAN, 3 COM, 4 USB, 1 PCIe x16, RoHS

► **Optional Items**

Optional Items	Part Number	Description
<b>CPU</b>	143-102402-500G	Intel® Core™ i7-6700TE, Quad Core, 8M Cache, 2.4GHz (3.4GHz), 35W, RoHS
	143-102303-500G	Intel® Core™ i5-6500TE, Quad Core, 6M Cache, 2.3GHz (3.3GHz), 35W, RoHS
	143-102701-500G	Intel® Core™ i3-6100TE, Dual Core, 4M Cache, 2.7GHz, 35W, RoHS
<b>Memory</b>	785-RSOD416G	SODIMM, DDR4 Module, 16GB, RoHS
	785-RSOD48G	SODIMM, DDR4 Module, 8GB, RoHS
	785-RSOD44G	SODIMM, DDR4 Module, 4GB, RoHS
<b>mSATA-mini</b>	785-MS128GMF	mSATA Card, 128GB MLC, RoHS
	785-MS64GMF	mSATA Card, 64GB MLC, RoHS
	785-MS32GMF	mSATA Card, 32GB MLC, RoHS
	785-MS16GMF	mSATA Card, 16GB MLC, RoHS
	785-MS08GMF	mSATA Card, 8GB MLC, RoHS
	785-MS04GMF	mSATA Card, 4GB MLC, RoHS
<b>Wi-Fi</b>	761-110091-000G	Wi-Fi Kit, RoHS
<b>Power Cord</b>	785-PWRD	Power Cord, Standards (USA/EUR/CH), 1.8m, RoHS
<b>Power Adapter</b>	671-110002-100G	100W, 12V, Level 6, RoHS
	671-110003-100G	120W, 19V, Level 6, RoHS
	671-116003-000G	160W, 19V/8.4A, Level 6, RoHS
<b>Wall Mount</b>	761-EC5410-000G	Wall Mount Kit, RoHS

► **Packing List**

• 1 EC510/EC511-SD system unit
• 1 Quick Installation Guide
• 1 CD disk includes:
- Drivers / Manual

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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