



Intel® Atom™ E3800 Series
Modular-Designed Embedded System

EC220/EC221-BT



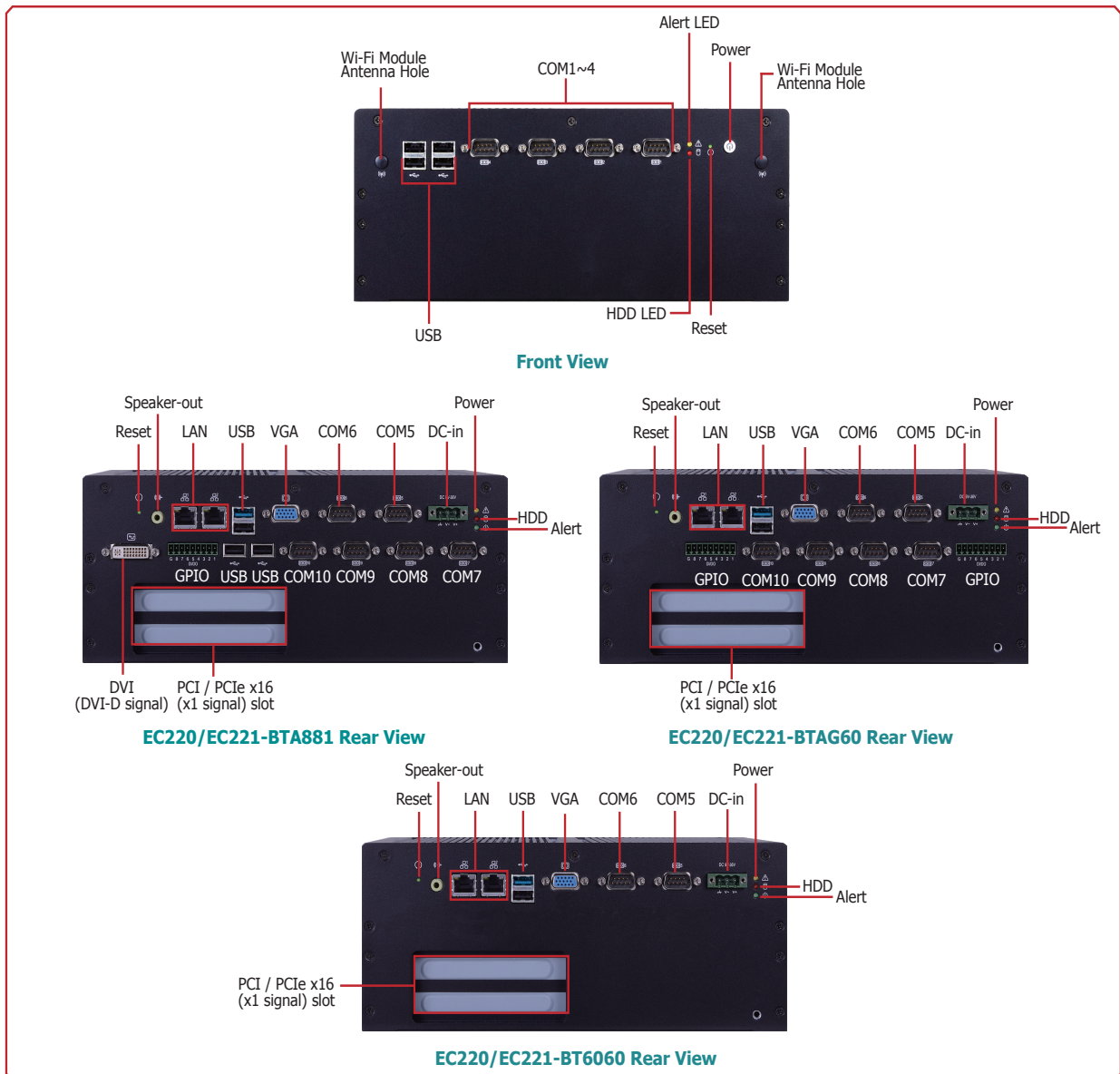
Features

- Fanless, compact design for industrial applications
- Supports DDR3L SODIMM up to 8GB
- 2x 2.5" SATA drive bays
- PCIe x16 (x1 signal) and PCI expansions



1 Vertical USB for securing data from unauthorized access (optional)

Panel



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► Specifications * Optional and is not supported in standard model. Please contact your sales representative for more information.

PROCESSOR SYSTEM

- Intel® Atom™ E3845, Quad Core, 2M Cache, 1.91GHz, 10W
- 22nm process technology

MEMORY

- Two 204-pin DDR3L SODIMM sockets
 - up to 8GB system memory
 - dual channel memory interface
- Supports DDR3L 1333MHz

GRAPHICS

- Intel® HD Graphics
- Display ports: 1 VGA, 1 DVI (DVI-D signal)
- Supports 2 independent displays
- VGA: resolution up to 2560x1600 @ 60Hz
- DVI: resolution up to 1920x1080 @ 60Hz

STORAGE

- 2 2.5" SATA drive bays
 - SATA 2.0 port with data transfer rate up to 3Gb/s
 - Standard: 1 SATA drive bay
 - Option: 2 SATA drive bays (Available upon request. Please contact your sales representative for more information.)
- Supports 1 mSATA module via the mini PCIe socket

ETHERNET

- 2 Intel® WG1210AT PCI Express Gigabit Ethernet controllers
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

EXPANSION

- EC220-BT
 - 2 PCI slots
 - 1 Mini PCIe slot
 - : Supports USB and PCIe signal
 - : Supports mSATA, Wi-Fi or 3G*
 - : Supports half size or full size Mini PCIe card
- EC221-BT
 - 1 PCIe x16 slot (x1 signal)
 - 1 PCI slot
 - 1 Mini PCIe slot
 - : Supports USB and PCIe signal
 - : Supports mSATA, Wi-Fi or 3G*
 - : Supports half size or full size Mini PCIe card

AUDIO

- Realtek® ALC888 High Definition Audio
- 2 watt, 4Ω power amplifier

POWER

- Power input voltage: 9~36V DC-in

ENVIRONMENT

- Temperature
 - Operating: 0°C~55°C (SSD/mSATA)
 - Operating: 0°C~50°C (HDD)
 - Storage: -20°C~85°C
- Operating Vibration
 - IEC68-2-64 (HDD)
- Operating Shock
 - Half sine wave 15G, 11ms, 3 shock per axis

CONSTRUCTION

- Aluminum + SGCC

MOUNTING

- Wall/VESA mount
 - Mounting brackets and screws*

DIMENSIONS

- 275mm x 114mm x 203mm (W x H x D)

WEIGHT

- 4 kg

OS SUPPORT

- Windows 7, WES 7, Windows 8.1, WES 8
- Linux (Distribution available upon request)

WATCHDOG TIMER

- Watchdog timeout programmable via software from 1 to 255 seconds

CERTIFICATION

- CE
- FCC Class A
- RoHS

► System Models

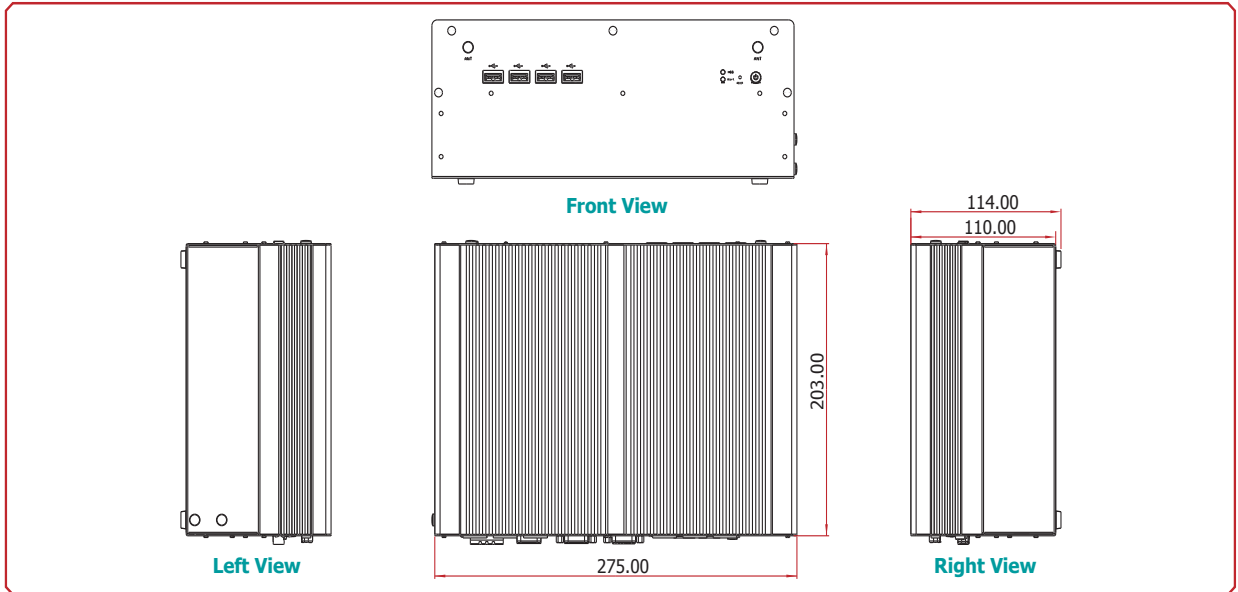
Rear I/O Ports	EC220/EC221-BTA881	EC220/EC221-BTAG60	EC220/EC221-BT6060
DC-in power jack: 3-pole terminal block	1	1	1
Speaker-out: 2W 3.5mm audio jack	1	1	1
VGA: DB-15 D-sub	1	1	1
DVI (DVI-D signal)	1	0	0
LAN: RJ45	2	2	2
RS232 COM: DB-9 D-Sub	2	2	2
RS232/422/485 COM: DB-9 D-Sub	4	4	0
USB 2.0 Type A	3	1	1
USB 3.0 Type A	1	1	1
GPIO: 9-pole terminal block	8-bit	16-bit	0
Reset button	1	1	1
Power LED	1	1	1
HDD LED	1	1	1
Alert LED	1	1	1
Front I/O Ports	EC220/EC221-BTA881	EC220/EC221-BTAG60	EC220/EC221-BT6060
USB 2.0 Type A	4	4	4
RS232/422/485 COM: DB-9 D-Sub	4	4	4
Power button with indicator	1	1	1
Reset button	1	1	1
HDD LED	1	1	1
Alert LED	1	1	1
Wi-Fi module antenna hole	2	2	2



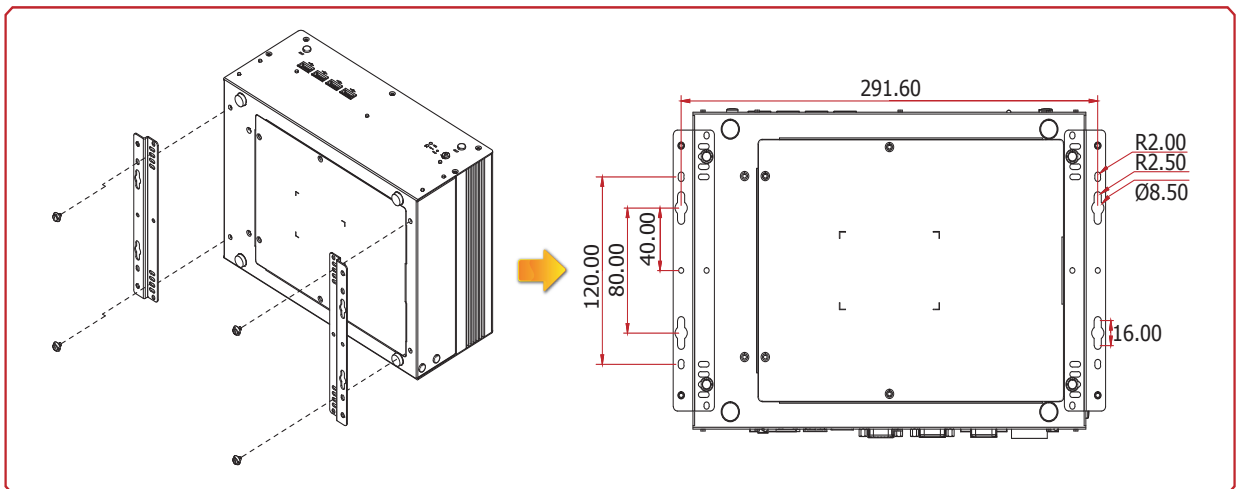
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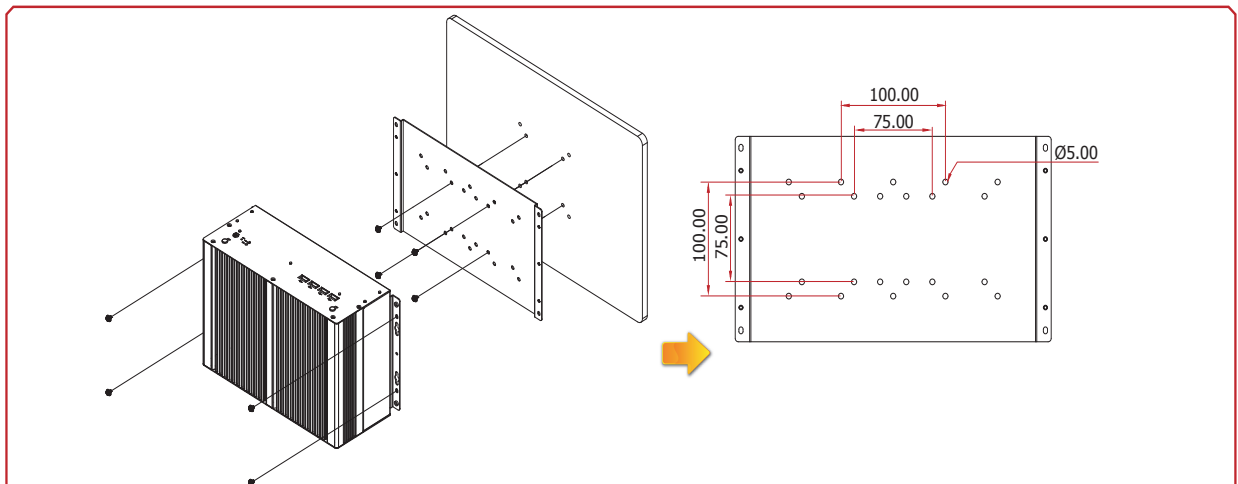
► Dimensions



► Wall Mounting



► VESA Mounting



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► **Ordering Information**

Model Name	Part Number	Description
EC220-BTA881-45	750-EC2200-C00G	Fanless, E3845, 2 LAN, 1 VGA, 1 DVI, 10 COM, 8-bit GPIO, 8 USB, 2 PCI, RoHS
EC220-BTAG60-45	750-EC2200-E00G	Fanless, E3845, 2 LAN, 1 VGA, 10 COM, 16-bit GPIO, 6 USB, 2 PCI, RoHS
EC220-BT6060-45	750-EC2200-F00G	Fanless, E3845, 2 LAN, 1 VGA, 6 COM, 6 USB, 2 PCI, RoHS
EC221-BTA881-45	750-EC2211-000G	Fanless, E3845, 2 LAN, 1 VGA, 1 DVI, 10 COM, 8-bit GPIO, 8 USB, 1 PCI, 1 PCIe x16, RoHS
EC221-BTAG60-45	750-EC2211-200G	Fanless, E3845, 2 LAN, 1 VGA, 10 COM, 16-bit GPIO, 6 USB, 1 PCI, 1 PCIe x16, RoHS
EC221-BT6060-45	750-EC2211-300G	Fanless, E3845, 2 LAN, 1 VGA, 6 COM, 6 USB, 1 PCI, 1 PCIe x16, RoHS

► **Optional Items**

Optional Items	Part Number	Description
Memory	785-RSOD34G-L	SODIMM, DDR3L Module, 4GB, RoHS
	785-RSOD32G-L	SODIMM, DDR3L Module, 2GB, RoHS
HDD	785-H25500G	2.5" SATA HDD, 500GB, RoHS
	785-H25320G	2.5" SATA HDD, 320GB, RoHS
	785-S251TBG	2.5" SATA SSD, 1TB MLC, RoHS
	785-S25512G	2.5" SATA SSD, 512GB MLC, RoHS
	785-S25256G	2.5" SATA SSD, 256GB MLC, RoHS
	785-S25128G	2.5" SATA SSD, 128GB MLC, RoHS
	785-S25064G	2.5" SATA SSD, 64GB MLC, RoHS
mSATA	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
Wi-Fi	761-110091-000G	Wi-Fi Kit, RoHS
Power Cord	785-PWRD	Power Cord, Standards (USA/EUR/CH), 1.8m, RoHS
Power Adapter	671-106011-000G	60W, 19V/3.15A, Level 6, RoHS
	671-106013-000G	60W, 12V/5A (-30 to 70°C), Level 6, RoHS
	671-110003-100G	120W, 19V/6.31A, Level 6, RoHS
Wall Mount	785-EC3WMK	Wall Mount Kit
VESA Mount	785-EC2VAK	VESA Mount Kit

► **Packing List**

• 1 EC220/EC221 system unit
• 1 HDD drive bay kit
- 2 Brackets
- 1 SATA data/power cable
- 4 Bracket screws
- 4 HDD screws
• Terminal blocks
• 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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