



EC220/ 221-BT



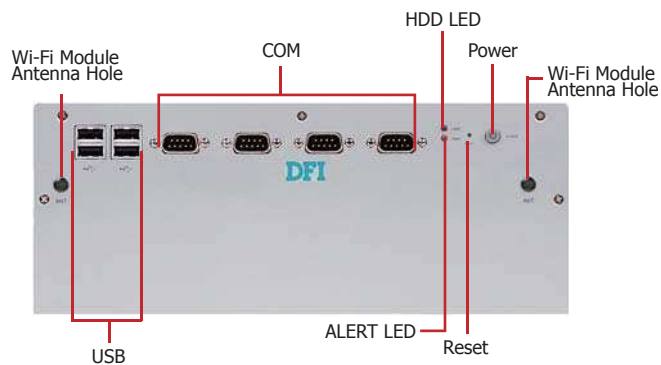
► Features

- Fanless, compact design for industrial applications
- Supports DDR3L SODIMM up to 8GB
- 1 2.5" SATA drive bay
- PCIe x16 (x1 signal) and PCI expansions

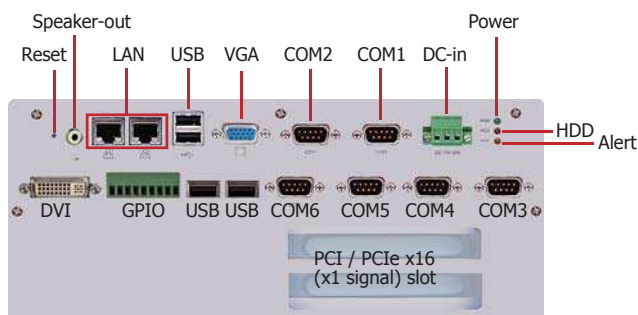


► 1 Vertical USB port for securing USB flash drive (optional)

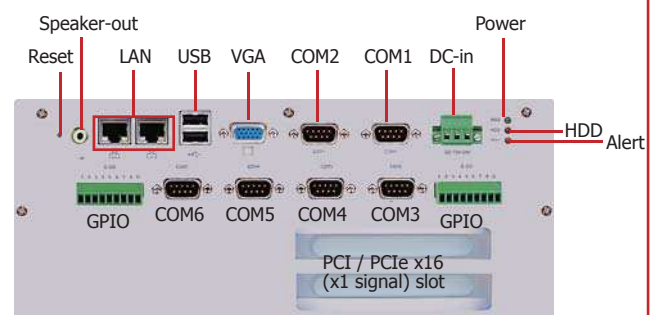
► Panel



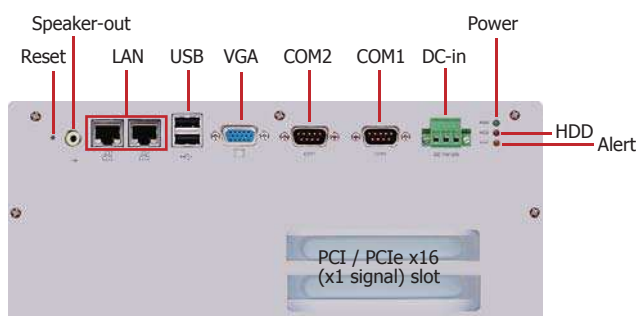
Front View



EC220/ 221-BTA881 Rear View



EC220/ 221-BTAG60 Rear View



EC220/ 221-BT6060 Rear View

EC220/ 221-BT

► Specifications

PROCESSOR SYSTEM

- Intel® Atom™ E3845, Quad Core, 2M Cache, 1.91GHz, 10W
- Intel® Atom™ E3815, Single Core, 0.5M Cache, 1.46GHz, 5W
- 22nm process technology

MEMORY

- Two 204-pin SODIMM sockets
- Supports DDR3L 1066/1333MHz
- Supports up to 8GB system memory

GRAPHICS

- Intel® HD Graphics
- Supports 2 independent displays
- VGA resolution up to 2560x1600 @ 60Hz
- DVI display resolution up to 2560x1600 @ 24Hz
- Display outputs: 1 VGA and 1 DVI

STORAGE

- 1 2.5" SATA drive bay
- Supports 1 mSATA module via the mini PCIe socket

ETHERNET

- 2 Intel® WGI210AT PCI Express Gigabit Ethernet controllers
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

AUDIO

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

EXPANSION

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

POWER

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

ENVIRONMENT

- Temperature
 - Operating: 0°C~55°C (SSD/mSATA/CFast)
 - Operating: 0°C~50°C (HDD)
 - Storage: -20°C~85°C
- Operating Vibration
 - MIL-STD-810F 514-5C-2 (HDD)
- Operating Shock
 - Half sine wave 15G, 11ms, 3 shock per axis

CONSTRUCTION

- Aluminum + SGCC

MOUNTING

- Wall/VESA mount
 - Mounting brackets and screws (optional)

DIMENSIONS

- 275mm x 110mm x 211mm (W x H x D)

WEIGHT

- 3.6 kg

OS SUPPORT

- Windows 7 Embedded, Windows 7, Windows 8 Embedded, Windows 8, Linux Fedora, Linux Kernel

WATCHDOG TIMER

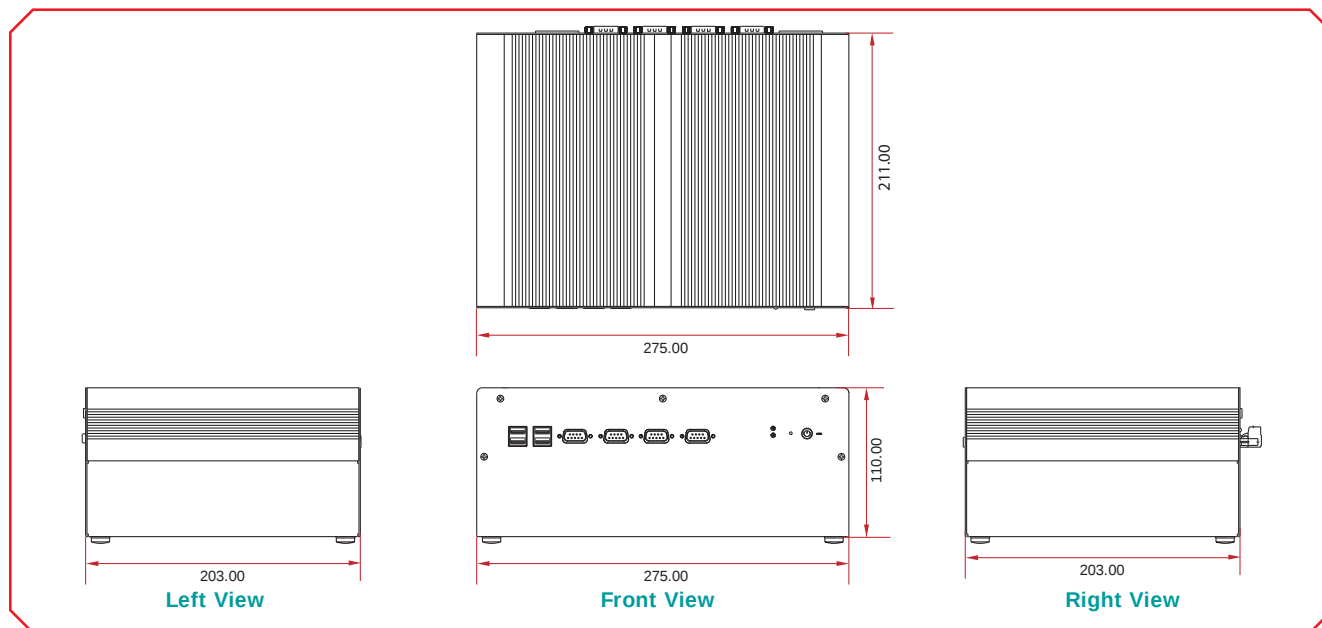
- Watchdog timeout programmable via software from 1 to 255 seconds

► System Models

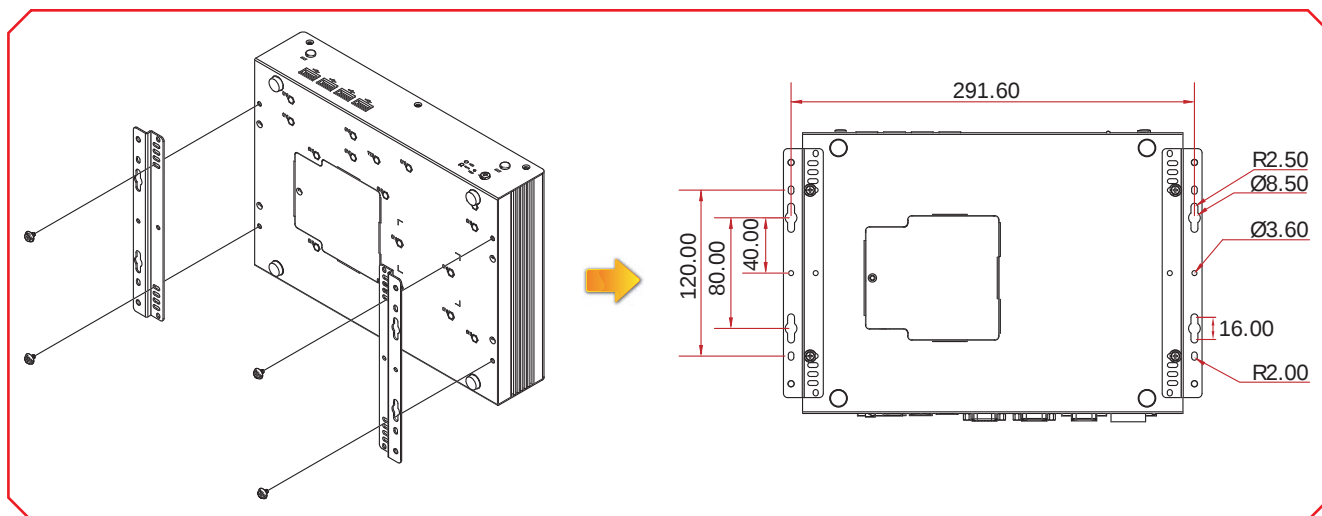
Rear I / O Ports	EC220/ 221-BTA881	EC220/ 221-BTAG60	EC220/ 221-BT6060
DC-in power jack: 3-pole terminal block	1	1	1
Speaker-out: 2W 3.5mm audio jack	1	1	1
VGA: DB-15 D-sub	1	1	1
DVI	1	0	0
LAN: RJ45	2	2	2
RS232/422/485 COM: DB-9 D-Sub	6	6	2
USB 2.0 Type A	4	2	2
GPIO: 9-pole terminal block	8-bit	16-bit	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/ 221-BTA881	EC220/ 221-BTAG60	EC220/ 221-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

EC220/ 221-BT

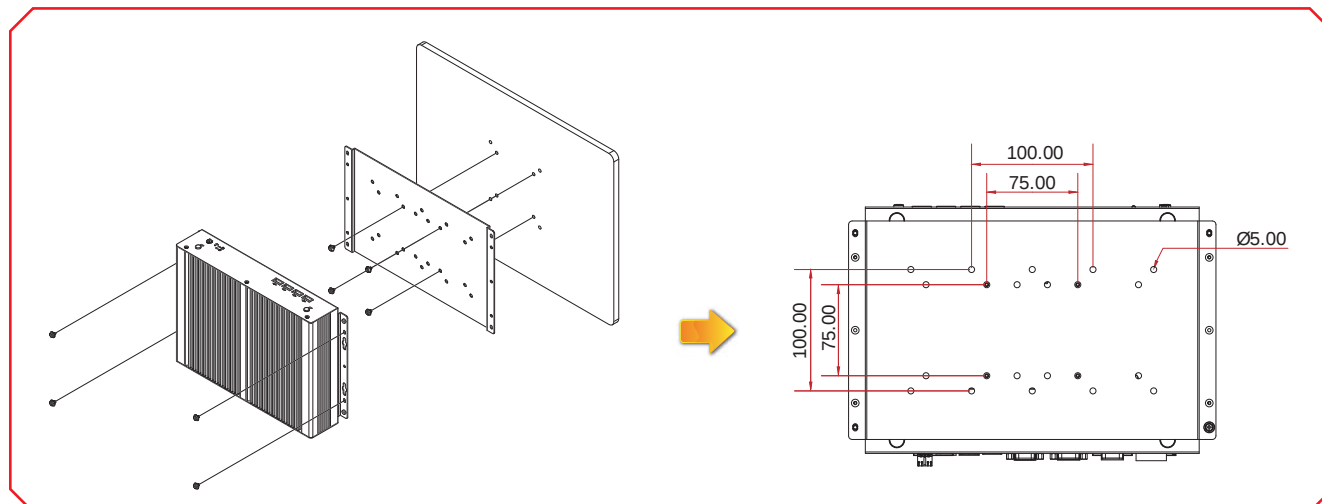
► Dimensions



► Wall Mounting



► VESA Mounting



EC220/ 221-BT

► Ordering Information

Model Name	Part Number	Description
EC220-BTA881-15		Fanless, E3815, 2 LAN, 1 VGA, 1 DVI-I, 10 COM, 8-bit GPIO, 8 USB, 2 PCI, RoHS
EC220-BTAG60-15		Fanless, E3815, 2 LAN, 1 VGA, 10 COM, 16-bit GPIO, 6 USB, 2 PCI, RoHS
EC220-BT6060-15		Fanless, E3815, 2 LAN, 1 VGA, 6 COM, 6 USB, 2 PCI, RoHS
EC221-BTA881-15		Fanless, E3815, 2 LAN, 1 VGA, 1 DVI-I, 10 COM, 8-bit GPIO, 8 USB, 1 PCI, 1 PCIe, RoHS
EC221-BTAG60-15		Fanless, E3815, 2 LAN, 1 VGA, 10 COM, 16-bit GPIO, 6 USB, 1 PCI, 1 PCIe, RoHS
EC221-BT6060-15		Fanless, E3815, 2 LAN, 1 VGA, 6 COM, 6 USB, 1 PCI, 1 PCIe, RoHS
EC220-BTA881-45		Fanless, E3845, 2 LAN, 1 VGA, 1 DVI-I, 10 COM, 8-bit GPIO, 8 USB, 2 PCI, RoHS
EC220-BTAG60-45		Fanless, E3845, 2 LAN, 1 VGA, 10 COM, 16-bit GPIO, 6 USB, 2 PCI, RoHS
EC220-BT6060-45		Fanless, E3845, 2 LAN, 1 VGA, 6 COM, 6 USB, 2 PCI, RoHS
EC221-BTA881-45		Fanless, E3845, 2 LAN, 1 VGA, 1 DVI-I, 10 COM, 8-bit GPIO, 8 USB, 1 PCI, 1 PCIe, RoHS
EC221-BTAG60-45		Fanless, E3845, 2 LAN, 1 VGA, 10 COM, 16-bit GPIO, 6 USB, 1 PCI, 1 PCIe, RoHS
EC221-BT6060-45		Fanless, E3845, 2 LAN, 1 VGA, 6 COM, 6 USB, 1 PCI, 1 PCIe, RoHS

► Optional Items

Optional Items	Part Number	Description
Memory	785-RSOD34G	SODIMM, DDR3L, 4GB, RoHS
	785-RSOD32G	SODIMM, DDR3L, 2GB, RoHS
HDD	785-H25500G	2.5" SATA HDD, 500GB, RoHS
	785-H25320G	2.5" SATA HDD, 320GB, RoHS
	785-S25128G	2.5" SATA SSD, 128GB MLC, RoHS
	785-S25064G	2.5" SATA SSD, 64GB MLC, RoHS
	785-S25032G	2.5" SATA SSD, 32GB MLC, RoHS
mSATA	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	761-110090-000G	Wi-Fi kit
Power Cord	785-PWRD	Power cord, Standards (USA/EUR/CH), 1.8m, RoHS
Power Adapter	671-106002-102G	60W, 12V/5A
	671-106005-000G	60W, 19V/3.5A
Wall Mount	785-EC3WMK	Wall Mount Kit
VESA Mount	785-EC2VAK	VESA Mount Kit

► Packing List

• 1 EC220/221 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