



Rear I/O

## Features

- Fanless system with IBASE MB220 customized board
- 7th/6th Gen Intel® Core™ i7/i5/i3 Processors (35W TDP)
- Supports three independent display outputs
- Flexible expansion slot system
- Dual SIM slots support WWAN redundancy
- **2x 2.5" HDD/SSD (Supports RAID 0/1)**
- 12V(-10%) ~ 24V(+10%) DC wide-range voltage input
- Over/Under/Reverse voltage protection
- iSMART, iAMT (11.6), TPM (2.0)

## Specifications

System Mainboard	MB220AF-1 with Intel® Q170 PCH MB220EF-1 with Intel® H110 PCH
CPU Type	7th/6th Gen Intel® Core™ i7/i5/i3 desktop processors (35W TDP)
System Speed	Up to 3.4GHz
Memory	2x 2GB DDR4-2400 SO-DIMM, Max. 32GB
Front Panel External I/O	1x DVI-D + 1x VGA 1x Audio jack for MIC-in / Line-out 4x USB 2.0 ports 1x Red HDD LED 1x Power button with green LED indicator 2x SIM card slots 1x 2-pin terminal block for external power button 1x front removable drive bay for SSD
Rear Panel External I/O	1x RS232/RS422/485 port for COM#1 5x RS232 port for COM#2/COM#2~6 2x DisplayPort connector 1x RJ45 Gigabit Ethernet port + 2x USB 3.0 port 1x RJ45 Gigabit Ethernet port + 2x USB 3.0 port 1x 3-pin DC-in terminal block for 12V(-10%) ~ 24V(+10%) 2x Antenna holes 1x Expansion slot
Expansion Slots	1x Mini PCI-E sockets
Storage	2x 2.5" HDD/SSD (1x internal & 1x external-accessible) 2x mSATA (AMI221AF only) & 1x mSATA (AMI221EF only) RAID 0, 1, 5, 10 support (AF version only)
Construction	Aluminum & steel
Chassis Color	Silver & Gray
Mounting	Desktop or wall mount (wall mount kit included)
Dimensions	210mm (W) x 265mm (D) x 108.6mm (H) 8.27" (W) x 10.43" (D) x 4.28" (H)
Weight	4.3kg
Operating Temperature	-10°C to 50°C (14°F~122°F)
Storage Temperature	-20°C ~ 80°C (-4°F~176°F)
Relative Humidity	5~90% @ 45°C, (non-condensing)
Vibration	Non-Operating: 1.0 grms / 5~500Hz / random operation Operating: 0.25 grms / 5~500Hz / random operation
Shock	Operating: 20G/ 11ms Non-Operating: 40G/ 11ms (MIL-STD-810G)
Certification	CE / LVD / FCC Class-B

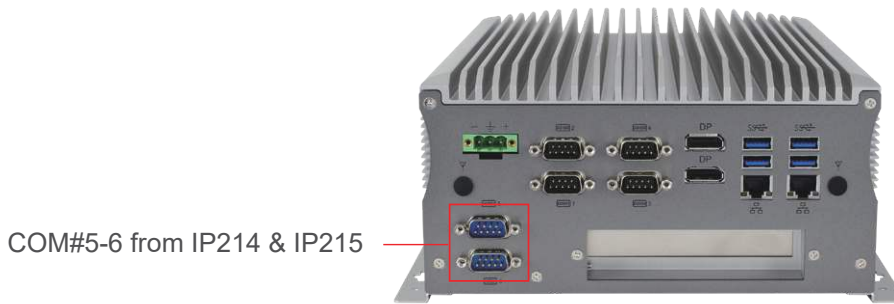
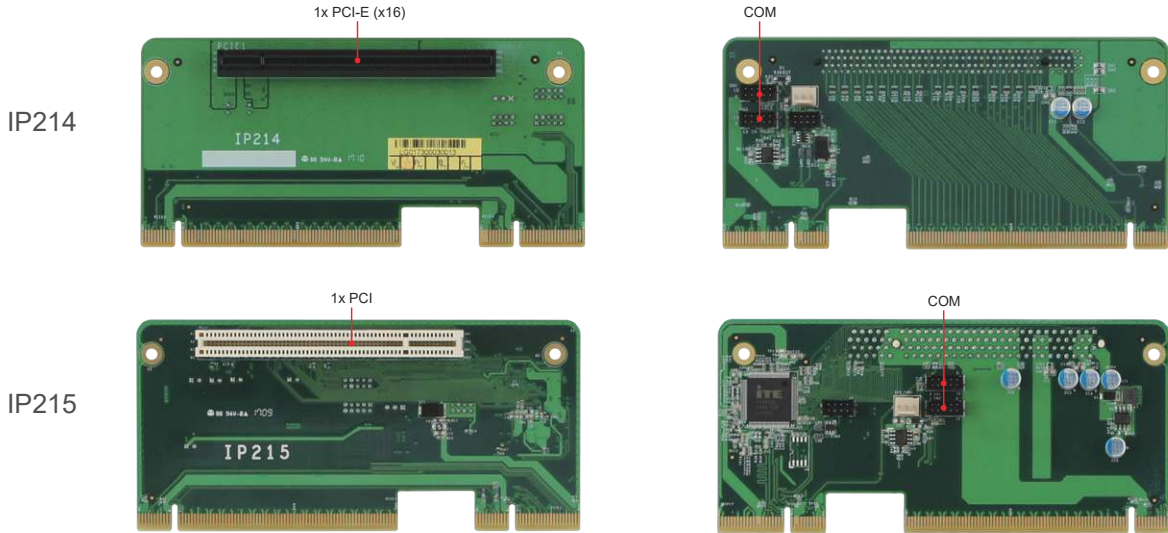
## Ordering Information

AMI221AF	Fanless box System with MB220AF, w/ Intel® Core™ i7/i5/i3 desktop Processor, 6x COM (from IP214 / IP215), 2x 4GB memory, 1x 2.5" 64GB MLC industrial-grade SSD, w/o power adaptor, optional riser card
AMI221EF	Fanless box System with MB220EF, w/ Intel® Core™ i7/i5/i3 desktop Processor, 6x COM (from IP214 / IP215), 2x 4GB memory, 1x 2.5" 64GB MLC industrial-grade SSD, w/o power adaptor, optional riser card
IP214 Riser Card Kit (optional)	IP214 ZM05IP214---0A1000P) w/ COM cable (2x C501PK1H009302A00P) for AMI221/AMI231
IP215 Riser Card Kit (optional)	IP215 (ZM05IP215---0A1000P) w/ COM cable (2x C501PK1H009302A00P) for AMI221/AMI231
150W power adaptor (optional)	150W (12V @12.5A) power adaptor, bare wire type Compatible with IEC62368-1/EN62368-1
Optional Accessories	GPS antenna kit

## Recommended Processor List

Model	TDP	Base Freq	Turbo Freq	Cache	Cores / Threads
i7-7700T	35W	2.9 GHz	3.8 GHz	8M	4/8
i7-6700TE	35W	2.4 GHz	3.4 GHz	8M	4/8
i5-7500T	35W	2.7 GHz	3.3 GHz	6M	4/4
i5-6500TE	35W	2.3 GHz	3.3 GHz	6M	4/4
i3-7101TE	35W	3.4 GHz	N/A	3M	2/4
i3-6100TE	35W	2.7 GHz	N/A	4M	2/4
G4400TE	35W	2.9 GHz	N/A	3M	2/2
G3900TE	35W	2.6 GHz	N/A	2M	2/2

## Expansion Cards



## Dimensions and Drawing

