

# **BAX-R4U0**

**4U Rackmount Barebone System**

## **Quick Reference Guide**

**1<sup>st</sup> Ed –01 December 2016**

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## **FCC Statement**



THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "B" DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

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# 1. Getting Started

## 1.1 Safety Precautions

### Warning!



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

### Caution!



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

## 1.2 Packing List

- 1 x BAX-R4U0 Barebone System
- Other major components include the followings:
  - Power Cord
  - Screw pack for HDD fixing



If any of the above items is damaged or missing, contact your retailer.

## 1.3 System Specifications

Component	
Mother Board	<ul style="list-style-type: none"> <li>EAX-Q170P-A1R</li> </ul>
CPU	<ul style="list-style-type: none"> <li>Intel® LGA1151 Socket Supports 6th Generation Core™ i7/ i5/ i3 Processors (Max. TDP at 95W)</li> </ul>
Memory	<ul style="list-style-type: none"> <li>4 x 288-pin DDR4 2133MHz DIMM supports up to 64GB</li> </ul>
Power Supply	<ul style="list-style-type: none"> <li>Seasonic PS2 500W PSU Bronze level</li> </ul>
System Fan	<ul style="list-style-type: none"> <li>1 x 120 x 25mm PWM Fan</li> <li>2 x 80 x 25mm Easy-Swap Rear Fan</li> </ul>
Storage	
Hard Disk Drive	<ul style="list-style-type: none"> <li>Internal: 3 x 3.5"</li> <li>External 3 x 5.25", 2 x 3.5"</li> </ul>
External I/O	
PS/2 KB & Mouse	<ul style="list-style-type: none"> <li>1 x PS/2 Keyboard or 1 x PS/2 Mouse</li> </ul>
Serial Port	<ul style="list-style-type: none"> <li>1 x COM</li> <li>5 x COM (Optional by full-high bracket)</li> </ul>
USB Port	<ul style="list-style-type: none"> <li>2 x USB 2.0 (Front), 2 x USB 2.0 (Rear)</li> <li>4 x USB 3.0 (Rear)</li> </ul>
Video Port	<ul style="list-style-type: none"> <li>1 x DP, 1 x VGA, 1 x HDMI</li> </ul>
Audio Port	<ul style="list-style-type: none"> <li>Line-in, Line-out, Mic-in</li> </ul>
LAN Port	<ul style="list-style-type: none"> <li>LAN1 / Intel® I219LM Gigabit Ethernet PHY</li> <li>LAN2 / Intel® I211AT PCI-e Gigabit Ethernet</li> </ul>
Indicator Light	<ul style="list-style-type: none"> <li>1 x PWR LED, 1 x HDD LED</li> </ul>
Expansion Slots	<ul style="list-style-type: none"> <li>Full Height PCI Slot x 7</li> </ul>
Others	<ul style="list-style-type: none"> <li>Power on/off button, Reset button</li> </ul>
Mechanical	
Power Type	<ul style="list-style-type: none"> <li>ATX/AT</li> </ul>
Power Connector Type	<ul style="list-style-type: none"> <li>AC power socket</li> </ul>
Dimension	<ul style="list-style-type: none"> <li>19" (W) x 20" (D) x 7" (H)</li> <li>(482.6 x 508 x 178mm)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>20 kg</li> </ul>
Color	<ul style="list-style-type: none"> <li>Black</li> </ul>
Reliability	
EMI Test	<ul style="list-style-type: none"> <li>BSMI Class B design compatible</li> </ul>
Safety	<ul style="list-style-type: none"> <li>BSMI design compatible</li> </ul>
Vibration Test	<ul style="list-style-type: none"> <li>Reference IEC60068-2-6 Testing procedures</li> <li>Test Fc : Vibration sinusoidal</li> </ul>

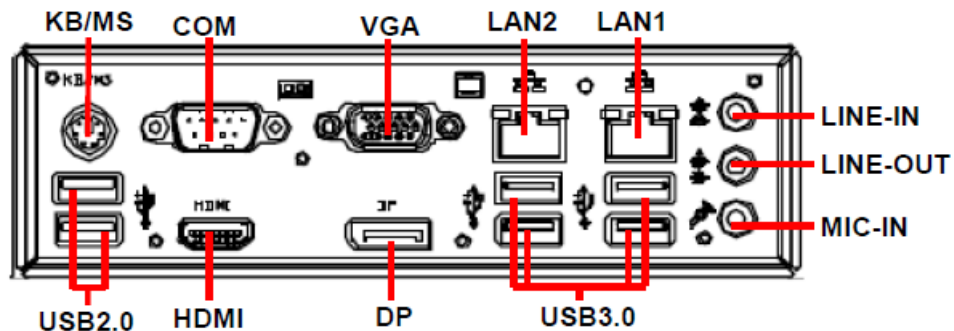
	<p>1 Test Acceleration : 2G</p> <p>2 Test frequency : 5~500 Hz</p> <p>3 Sweep : 1 Oct/ per one minute. (logarithmic)</p> <p>4 Test axis : X,Y and Z axis</p> <p>5 Test time :10 min. each axis</p> <p>6 System condition : Non-Operating mode</p> <p>7 Test curve</p> <ul style="list-style-type: none"> <li>Reference IEC60068-2-64 Testing procedures</li> <li>Test Fh : Vibration boardband random Test                     <p>1 Test PSD : 0.026G<sup>2</sup>/Hz , 2.16 Grms</p> <p>2 Test frequency : 5~500 Hz</p> <p>3 Test axis : X,Y and Z axis</p> <p>4 Test time : 30 minutes each axis</p> </li> <li>Random Vibration Operation</li> <li>Reference IEC60068-2-64 Testing procedures</li> <li>Test Fh : Vibration boardband random Test                     <p>1 Test PSD : 0.00454G<sup>2</sup>/Hz , 1 0.5 Grms</p> <p>2 Test frequency : 5~500 Hz</p> <p>3 Test axis : X,Y and Z axis</p> <p>4 Test time : 30 minutes each axis</p> <p>5 System condition : operation mode</p> </li> </ul>
<b>Operating Temperature</b>	<ul style="list-style-type: none"> <li>(w/HDD), ambient w/ air flow</li> <li>0 ~ 35 C (32F ~ 95 F)</li> </ul>
<b>Operating Humidity</b>	<ul style="list-style-type: none"> <li>0% ~ 90% Relative Humidity, Non-condensing</li> </ul>
<b>Storage Temperature</b>	<ul style="list-style-type: none"> <li>-20°C ~ 75°C (-4°F ~ 167°F)</li> </ul>



**Note:** Specifications are subject to change without notice.

## 1.4 System Overview

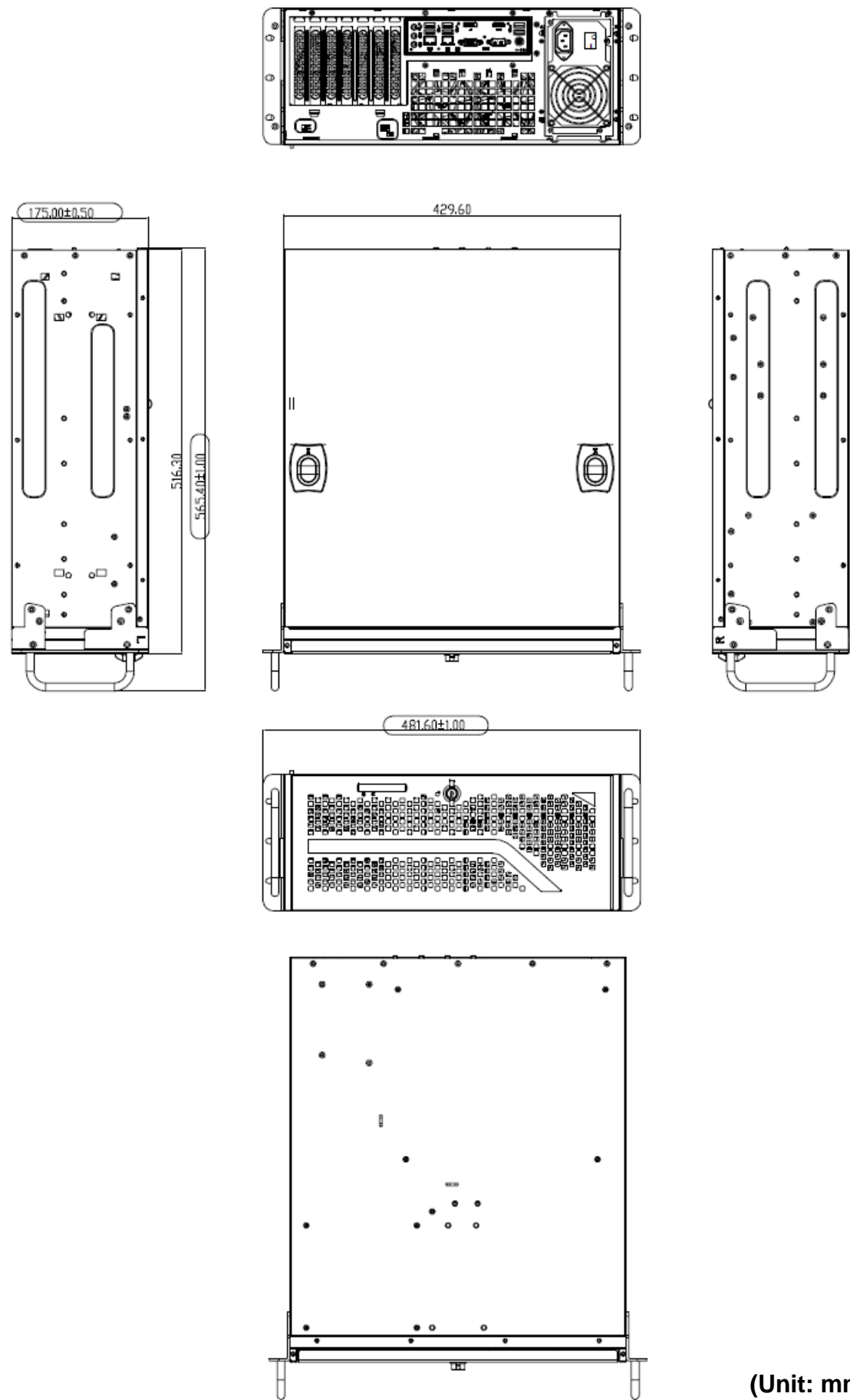
### 1.4.1 Rear View



#### Connectors

Label	Function	Note
USB2.0	2 x USB2.0 connector	
USB3.0	4 X USB3.0 connector	
LAN1/2	RJ-45 Ethernet 1/2	
COM	Serial port connector	
KB/MS	PS/2 keyboard & mouse connector	
HDMI	HDMI connector	
LINE-OUT	Line-out audio jack	
LINE-IN	Line-in audio jack	
MIC-IN	Mic-in audio jack	
VGA	VGA connector	
DP	DP connector	

1.5 System Dimensions





## 2. Hardware Configuration

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For advanced information, please refer to:

1- EAX-Q170P User's Manual

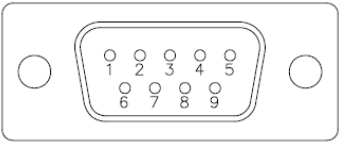
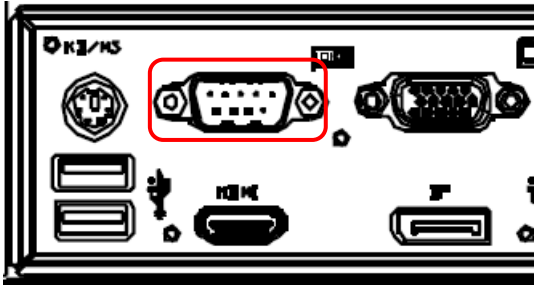


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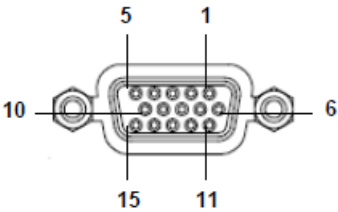
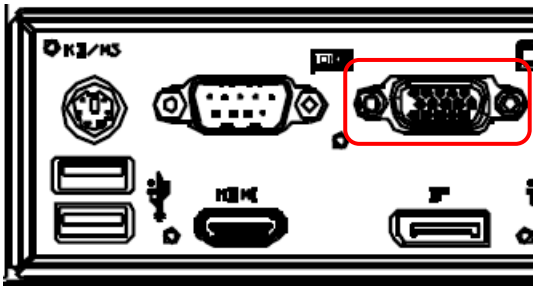
2.1 BAX-R4U0 connector mapping

2.1.1 Serial port connector (COM)



Signal	PIN	PIN	Signal
ND CD#	1	6	ND SR#
NRXD	2	7	NRTS#
NTXD	3	8	NCTS#
NDTR#	4	9	JNRI#
GND	5		

2.1.2 VGA connector (VGA)



PIN	Signal	PIN	Signal	PIN	Signal
1	RED	6	GND	11	NC
2	GREEN	7	GND	12	DDCDAT
3	BLUE	8	GND	13	HSYNC
4	NC	9	+5V	14	VSYSN
5	GND	10	GND	15	DDCCLK

