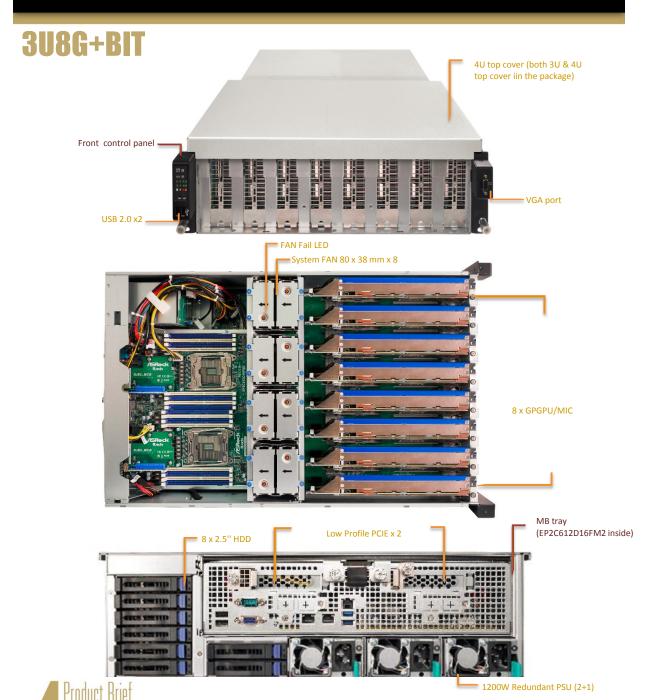




Stable and Reliable Solution







- 3U Rackmount with 1200W Redundant PSU (2+1)
- Intel® Xeon® processor E5-2600 v3/v4 series
- Support 16 x DDR4 DIMM slot, 2133/2400 RDIMM, LR DIMM
- Supports 8 x GPGPU/MIC card or 8 x GPGPU/MIC
- Supports Intel i350 Dual GLAN
- Supports 8 x SATA3 6.0 Gb/s or 8 x SAS 12 Gb/s Hot Swap Bay
- Supports 2 x PCIE card or 2 x Mezz LAN card\*









## **Product Specifications**

Product Specifications	S
System	
Form Factor	- 3U Rackmount
Chassis Model	- 3U8G+ BIT
Dimensions	- 722.3 x 430 x 170.35 mm
Support MB	- EATX, 12 x 10.56 inch (EP2C612D16FM2)
System Front Panel	
Front control Panel	
Buttons	- Power button
	- UID button
	- Reset button
	- NMI button
	- 2 x LAN LEDs (L1 , L2 , LED)
LEDs	- 2 x Front LEDs
LLDS	- HDD LED
	- System event LED
I/O Ports	- 2 x USB 2.0 ports - VGA port x1
MB tray(EP2C612D16FM2 i	nside)
USB 2.0	- 2
USB 3.0	- 2
Serial Port	-1
VGA	- 1 x D-Sub
Lan Port	- 2 (GLAN by Intel i350)+1 (IPMI) Lan port (RJ45)
Lanron	- LAN Ports with LED (ACT/LINK LED and SPEED LED)
UID Button/UID LED	-1
External Drive Bay	
Front Side Drive Bay	- 8 Bay 2.5" SATA HDD (6Gb/s)
Power Supply	
Туре	- 3 (2+1), Redundant
Output Watts	- 1200W, Platinum
System Fan	
Fan	- 80 x 38 mm x 8
FAN Fail LED	- Abnormal(DC on): LED ON (Solid Red) - Normal: LED OFF (For the FAN in the center)
System Switch board	
Switch IC	- PLX 8747
GPGPU card	
GPGPU Watts	- Max 300w /per card
Support GPGPU	- 8 x GPGPU card or 8 x GPGPU/MIC





Stable and Reliable Solution Barebone



Form Factor	Motherboard	EP2C612D16FM2
Processor System	MB Physical Status	
Processor System           CPU         - Intel® Xeon® processor E5-2600 v3/v4 series           Socket         - Dual Socket LGA 2011 R3           Chipset         - Intel® C612           System Memory           Capacity         - 16 DIMM slots           - Quad Channel memory technology         - Supports 2133/2400 D117RDIMM and LRDIMM           Voltage         - 1.2V           Expansion Slot           Additional PCle switch Rack system board)           STATA Controller Additional Storage           SATA Controller Additional Storage           Intel® C612 : 6 x SATA3 6.0 Gb/s (4 from 1 mini SAS connector + 2x SATA3 connector)           Controller           Land Controller         - 1000 /100 /100 Mbps         - 2 x RJ45 by Intel® 1350           - 1 x RJ45 Dedicated IPMI LAN port         - Supports Wake-On-LAN           LAN Controller         - Supports Exergy Efficient Ethernet 802.3az           - Supports PXE         - LAN1 Supports NCSI           - AX Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet o	Form Factor	- SSI CEB
CPU   Intel® Xeon® processor E5-2600 v3/v4 series Socket   Dual Socket LGA 2011 R3 Chipset   Intel® C612  System Memory  Capacity   -16 DIMM slots   -Quad Channel memory technology   -Quad Channel memory techno	Dimensions	- 12" x 10.5" (30.5 cm x 26.7 cm)
Socket Cripset         - Dual Socket LGA 2011 R3           Cripset         - Intel® C612           System Memory           Capacity         - 16 DIMM slots           Quad Channel memory technology         - Quad Channel memory technology           Type         - Supports 2133/2400 D117RDIMM and LRDIMM           Voltage         - 1.2V           Expansion Slot           Additional PCle switch         Front Right Angle 2 x16 from each CPU to Midplane, total 4 x16 (need to bundle with ASRock Rack system board)           Storage           SATA Controller         - Intel® C612: 6 x SATA3 6.0 Gb/s (4 from 1 mini SAS connector + 2x SATA3 connector)           Controller           Interface         - 1000 / 100 / 10 Mbps           - 2 x RJ45 by Intel® 3550         - 1 x RJ45 Dedicated IPMI LAN port           - Supports Wake-On-LAN         - Supports Wake-On-LAN           - Supports Energy Efficient Ethernet 802.3az         - Supports Energy Efficient Ethernet 802.3az           - LAN1 Supports NCSI         - 2 x x8 Mezzanine slot support mezzanine card with 2 x40G Ethernet or 2 x10G Ethernet or 2 x10G Ethernet or 2 x10G LAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® 350)           Management           BMC Controller         - ASPEED AST2400	Processor System	
System Memory  Capacity - 16 DIMM slots - Quad Channel memory technology - Quad Channel memory technology - Supports 2133/2400 D117RDIMM and LRDIMM  Voltage - 1.2V  Expansion Slot  Additional PCle switch Rack system board)  Storage  SATA Controller Additional Storage - Intel® C612 : 6 x SATA3 6.0 Gb/s (4 from 1 mini SAS connector + 2x SATA3 connector) - N/A  Ethernet  Interface - 1000 /100 /10 Mbps - 2 x RJ45 by Intel® 1350 - 1 x RJ45 Dedicated IPMI LAN port - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports NCSI - 2 x X 8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® 1350) - Supports NCSI  BMC Controller   ASPEED AST2400 - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller   ASPEED AST2400 - DDR3 16MB	CPU	- Intel® Xeon® processor E5-2600 v3/v4 series
System Memory         - 16 DIMM slots           Capacity         - 16 DIMM slots           Type         - 2 updorts 2133/2400 D117RDIMM and LRDIMM           Voltage         - 1.2V           Expansion Slot         - Front Right Angle 2 x16 from each CPU to Midplane, total 4 x16 (need to bundle with ASRock Rack system board)           Storage         - Intel® C612 : 6 x SATA3 6.0 Gb/s (4 from 1 mini SAS connector + 2x SATA3 connector)           Additional Storage Controller         - Intel® C612 : 6 x SATA3 6.0 Gb/s (4 from 1 mini SAS connector + 2x SATA3 connector)           Ethernet         - 1000 /100 /10 Mbps           LAN Controller         - 1000 /100 /10 Mbps           - 2 x R.J45 by Intel® i350         - 1 x R.J45 Dedicated IPMI LAN port           LAN Controller         - Supports Wake-On-LAN           LAN Controller         - Supports Wake-On-LAN           A supports NCSI         - 2 x x 8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 x X6LAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 25599ES or 2 x GLAN by Intel® i350)           Management         - 4 x Realtek RTL8211E for dedicated management GLAN           IPMI Dedicated GLAN         - 1 x Realtek RTL8211E for dedicated management GLAN           Watch Dog Features         - 3 x SPEED AST2400           Total Designation         - 4 x SPEED AST2400 <t< td=""><td>Socket</td><td>- Dual Socket LGA 2011 R3</td></t<>	Socket	- Dual Socket LGA 2011 R3
Capacity	Chipset	- Intel <sup>®</sup> C612
Type - Quad Channel memory technology - Supports 2133/2400 D117RDIMM and LRDIMM - Voltage - 1.2V  Expansion Slot - Additional PCle switch Additional PCle switch Additional PCle switch Additional PCle switch Rack system board)  Storage - Intel® C612 : 6 x SATA3 6.0 Gb/s (4 from 1 mini SAS connector + 2x SATA3 connector) - N/A  Ethernet - Interface - 1000 /100 /10 Mbps - 2 x RJ45 by Intel® 1350 - 1 x RJ45 Dedicated IPMI LAN port - Supports Wake-On-LAN - Supports Wake-On-LAN - Supports Wake-On-LAN - Supports NCSI - 2 x SM ezzanine Slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 x GLAN/(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 2599ES or 2 x GLAN by Intel® 1350) - Supports NCSI  Management - SPEED AST2400 - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics - ASPEED AST2400 - DDR3 16MB	System Memory	
Type    Supports 2133/2400 D117RDIMM and LRDIMM     Voltage	Capacity	- 16 DIMM slots
Supports 2133/2400 D117RDIMM and LRDIMM  Voltage -1.2V  Expansion Slot  Additional PCIe switch Rack system board)  Storage  SATA Controller Additional Storage Controller  Interface   - 1000 /100 /10 Mbps -2 x RJ45 by Intel® 1350 -1 x RJ45 Dedicated IPMI LAN port - Supports PXE - LAN1 Supports PXE - LAN1 Supports NCSI -2 x x8 Mezzanine SFP+ by Intel® 82599ES or 2 x GLAN by Intel® 1350) -5 supports NCSI -2 x x8 Mezzanine SFP+ by Intel® 82599ES or 2 x GLAN by Intel® 1350) -5 supports NCSI -6 supports NCSI -7 suppo		- Quad Channel memory technology
Expansion Slot  Additional PCle switch Rack system board)  Storage  SATA Controller Additional Storage Controller PN/A  Interface   - 1000 /100 /10 Mbps	Туре	- Supports 2133/2400 D117RDIMM and LRDIMM
Additional PCle switch Rack system board)  Storage  SATA Controller Additional Storage Controller Additional Storage  Ethernet  Interface Interface - 1000 /100 /10 Mbps - 2 x RJ45 by Intel® 1350 - 1 x RJ45 Dedicated IPMI LAN port - Supports Dual LAN with Teaming function - Supports Dual LAN with Teaming function - Supports NCSI - 2 x 8 Mezzanine SPF by Intel® 82599ES or 2 x GLAN by Intel® 1350) - 5 supports NCSI - Supports NCS	Voltage	- 1.2V
Rack system board)  Storage  SATA Controller Additional Storage Controller  Ethernet  Interface  Interface  - 1000 /100 /10 Mbps - 2 x RJ45 by Intel® i350 - 1 x RJ45 Dedicated IPMI LAN port - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE - LAN1 Supports NCSI - 2 x x 8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 x6LAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  BMC Controller  BMC Controller  ASPEED AST2400 - NMI  Graphics  Controller  - ASPEED AST2400 - DDR3 16MB	Expansion Slot	
SATA Controller Additional Storage Controller   N/A		
Additional Storage   Controller	Storage	
Interface	Additional Storage	
- 2 x RJ45 by Intel® i350 - 1 x RJ45 Dedicated IPMI LAN port - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE - LAN1 Supports NCSI - 2 x x8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller - ASPEED AST2400 - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller - ASPEED AST2400 - ASPEED AST2400 - DDR3 16MB		
- 1 x RJ45 Dedicated IPMI LAN port - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE - LAN1 Supports NCSI - 2 x x 8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller - ASPEED AST2400 - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller - ASPEED AST2400 - DDR3 16MB	Interface	- 1000 /100 /10 Mbps
- Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE - LAN1 Supports NCSI - 2 x x8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller IPMI Dedicated GLAN - ASPEED AST2400 - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller VRAM - ASPEED AST2400 - DDR3 16MB		- 2 x RJ45 by Intel <sup>®</sup> i350
LAN Controller - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE - LAN1 Supports NCSI - 2 x x8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller - ASPEED AST2400 IPMI Dedicated GLAN - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller - ASPEED AST2400 VRAM - DDR3 16MB		- 1 x RJ45 Dedicated IPMI LAN port
- Supports Dual LAN with Teaming function - Supports PXE - LAN1 Supports NCSI - 2 x x8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller - ASPEED AST2400 - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller - ASPEED AST2400 - ASPEED AST2400 - DDR3 16MB		- Supports Wake-On-LAN
- Supports PXE - LAN1 Supports NCSI - 2 x x8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller - ASPEED AST2400 - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller - ASPEED AST2400 - DDR3 16MB	LAN Controller	- Supports Energy Efficient Ethernet 802.3az
- LAN1 Supports NCSI - 2 x x8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller IPMI Dedicated GLAN - 1 x Realtek RTL8211E for dedicated management GLAN - Watch Dog - NMI  Graphics  Controller VRAM - ASPEED AST2400 - ASPEED AST2400 - DDR3 16MB		- Supports Dual LAN with Teaming function
- 2 x x8 Mezzanine slot support mezzanine card with 2 X40G Ethernet or 2 x10G Ethernet or 2 xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel® X540 or 2 x SFP+ by Intel® 82599ES or 2 x GLAN by Intel® i350) - Supports NCSI  Management  BMC Controller		- Supports PXE
Mezzanine		
BMC Controller - ASPEED AST2400  IPMI Dedicated GLAN - 1 x Realtek RTL8211E for dedicated management GLAN  Features - Watch Dog - NMI  Graphics  Controller - ASPEED AST2400 VRAM - DDR3 16MB	Mezzanine	xGLAN(2x 40G SFP28 by Mellanox MT27712A0-FDCF-AE or 2x 10G Base-T by Intel <sup>®</sup> X540 or 2 x SFP+ by Intel <sup>®</sup> 82599ES or 2 x GLAN by Intel <sup>®</sup> i350)
IPMI Dedicated GLAN  Features  - 1 x Realtek RTL8211E for dedicated management GLAN  - Watch Dog - NMI   Graphics  Controller VRAM - ASPEED AST2400 - DDR3 16MB	Management	
- Watch Dog - NMI  Graphics  Controller - ASPEED AST2400 VRAM - DDR3 16MB	BMC Controller	- ASPEED AST2400
Features - NMI  Graphics  Controller - ASPEED AST2400  VRAM - DDR3 16MB	IPMI Dedicated GLAN	- 1 x Realtek RTL8211E for dedicated management GLAN
Controller - ASPEED AST2400 VRAM - DDR3 16MB	Features	Ü
VRAM - DDR3 16MB	Graphics	
	Controller	- ASPEED AST2400
Rear Panel I/O	VRAM	- DDR3 16MB
	Rear Panel I/O	

VCA Dow	4 v D Cvb
VGA Port	- 1 x D-Sub
USB 2.0 Port	-2
USB 3.0 Port	-2
Lan Port	- 2 + 1 (IPMI) Lan port (RJ45) - LAN Ports with LED (ACT/LINK LED and SPEED LED)
Serial Port	- 1 (COM1)
UID Button/UID LED	
Internal Connector	-1
Auxiliary Panel Header	- 1 (includes chassis intrusion, location button & LED, front LAN LED)
TPM Header	-1 (Includes chassis intrusion, location button & LED, from LAN LED)
IPMB Header	-1
Fan Header	- 2x CPU Fan, 3x system Fan (4-pin)
ATX Power	- 1 (24-pin) + 2 (8-pin)
USB 3.0 Header	- 1 (24-piii) + 2 (0-piii) - 1 (support 2 USB 3.0)
USB 2.0 Header	- 2 (support 2 USB 2.0)
Type A USB 3.0 Port Front Panel	-1 -1
Mezzanine	-1 -2
	-2
System BIOS	- 128Mb AMI UEFI Legal BIOS
BIOS Type	
	- Plug and Play (PnP)
BIOS Features	- ACPI 2.0 Compliance Wake Up Events
	- SMBIOS 2.8 Support
Hardware Monitor	- ASRock Rack Instant Flash
Hardware Monitor	CDI L Temperatura Canaina
Temperature	- CPU Temperature Sensing
remperature	- System Temperature Sensing - Card Side Temperature Sensing
	- Card Side Temperature Sensing - CPU/Rear/Front Fan Tachometer
Fan	
raii	- CPU Quiet Fan (Allow CPU Fan Speed Auto-Adjust by CPU Temperature)
Valtana	- CPU/Rear/Front Fan Multi-Speed Control
Voltage	- Voltage Monitoring: CPU1, CPU2, mem, 3v/5v/12v,+1.05V_PCH, +BAT, 3VSB, 5VSB
Support OS	Microsoft® Windows®
	- Server 2008 R2 SP1 (64 bit)
	- Server 2012 (64 bit)
	- Server 2012 R2 (64 bit)
	Linux  Deall let Enterprise Linux Compan C. 9. / 7. 9. / 64 hit)
	- RedHat Enterprise Linux Server 6.8 / 7.2 (64 bit)
	- CentOS 6.8 / 7.2 (64 bit)
00	- SUSE Enterprise Linux Server 12 SP1 (64 bit)
OS	- SUSE Enterprise Linux Server 11 SP4 (32 / 64 bit)
	- FreeBSD 11 (32 / 64 bit)
	- Fedora core 24 (64 bit)
	- Ubuntu 16.04 (64 bit) / 15.10 (64 bit)
	Virtual
	Virtual - VMWare® ESXi 5.5
	Virtual

	(not supported for Marvell 9172)
Environment	
Temperature	Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C