

GIGABYTE™

Product Guide R180-F28 / R180-F34

Feb.2015

MD90-FS0 Specifications



Feature	Specification
Form factor	Proprietary (381 x 421 mm; 15.3"x 16.5") , 8 Layers
Processor Support	Intel Haswell Xeon E5-2600 v3 DUAL Processor Socket (LGA 2011) Socket R3
Chipset	Intel C612 Chipset (Wellsburg)
Memory	24 x DIMM slots support 4 channel DDR4 1333/1866 (3DPC) @ R-DIMM ; 1600/2133 MHz (3DPC) @ LR-DIMM
LAN	Dual GbE LAN Intel I350 AM2; 10G Base-T (Option) 1 x Management LAN 10/100/1G
VGA / VRAM	Integrated in BMC with DDR3 128MB VRAM; 1920x1200@60Hz 32bpp
BMC	ASPEED AST2400
Expansion Slot	1 x PCIe x16 + 1 x PCIe x1 (@Gen 3 x24) from CPU0 2 x PCIe x16 (@Gen 3 x16) from CPU1 1 x Proprietary PCIe x8 (@Gen3 x8) for GBT Add-on card (H Type)
Storage	2 x Mini-SAS 6Gb/s; 2 x SATAIII 6Gb/s; SW RAID 0/1/10/5 support Available to support 2 Port SATA3.0 DOM on MB
Rear IO Connector	1 x COM, 1 x VGA, 2 x RJ45, 1 x MLAN, 2 x USB3.0, 2 x USB2.0, 1 x Power SW
Internal Connector	2 x USB3.0, 1x TPM
TPM	I/F w/ Add-on kit (Optional)

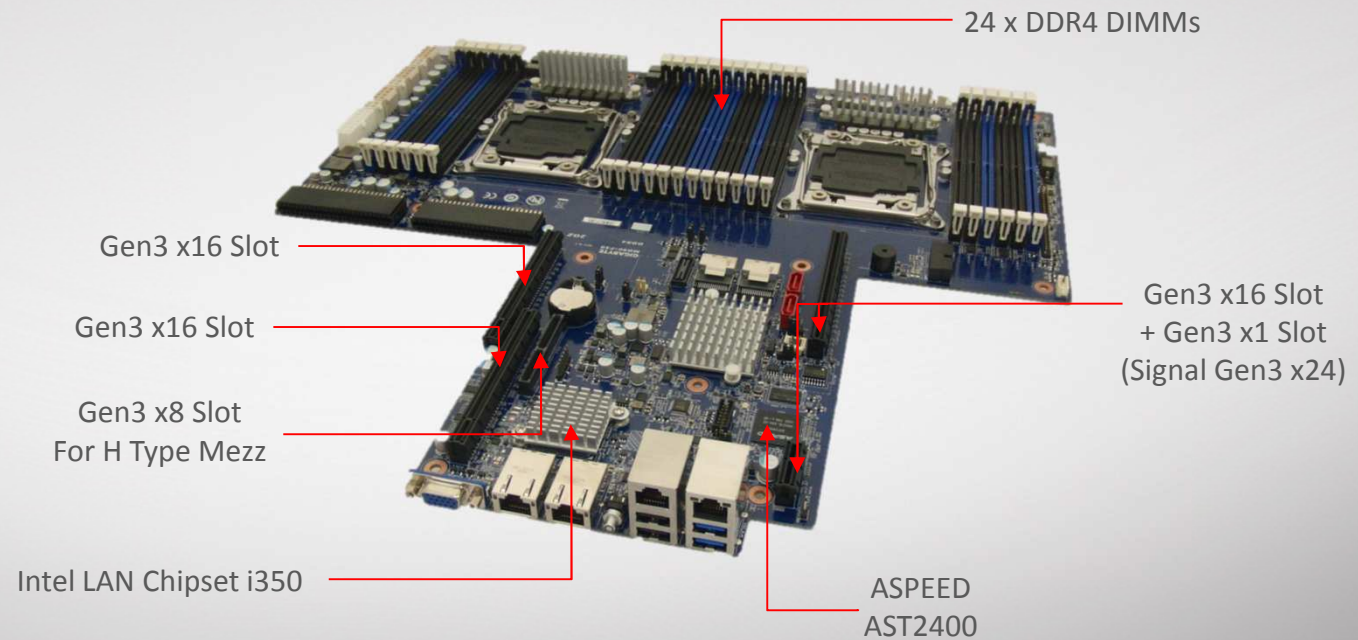
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MD90-FS0 – Key Feature



DDR4
2133



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R180-F34 Specification - System

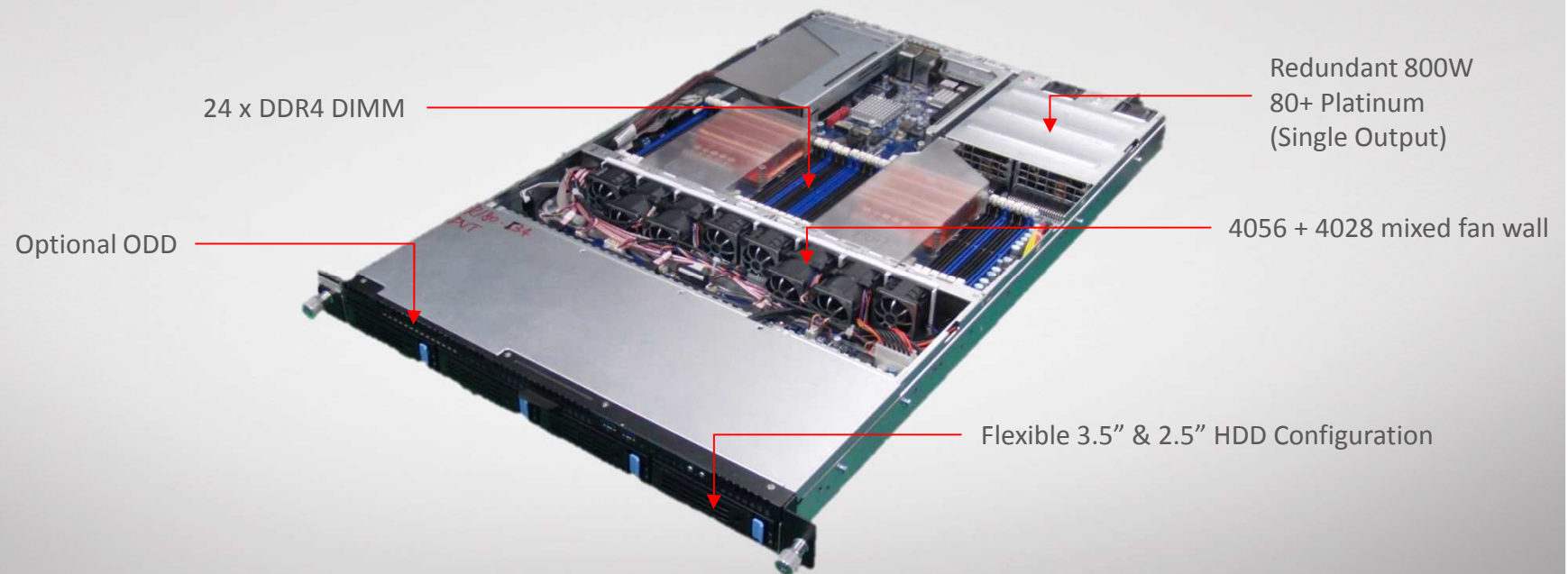


Feature	Specification
Dimension	1U Rack (43 x 430 x 710 mm; 1.69" x 16.9" x 28.0")
Mother Board Spec	Proprietary MD90-FS0 (Flag Ship)
Drive Bay	4 x 3.5"/2.5" Hot-swap HDD; Optional ODD
Expansion Slot	2 x Full Height Half Length Slot Universal I/O (For Low-profile Slot & GBT Add-on Card)
Power Supply	Redundant 800W 80+ Platinum (Single Output)
System Cooling	4 x 4056 + 4 x 4028 Flexible Fan Wall
Front Panel	Power On/Off Button, ID Button Reset Button, NMI Button 2 x USB3.0, HDD Status LED System Status LED, LAN Status LED
Backplane	SAS/SATA 6Gb/s HDD Backplane

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R180-F34/F28 – Key Feature 1



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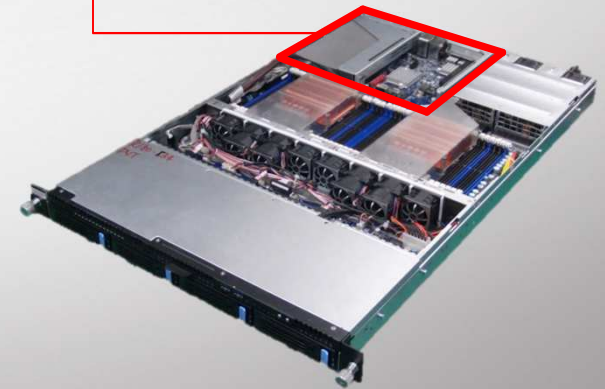
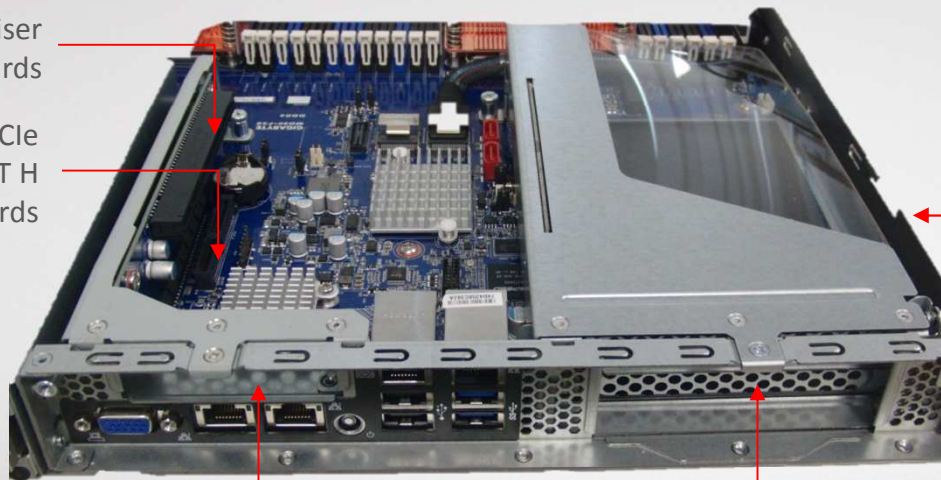
R180-F34/F28 – Key Feature 2

PCIe Slot on Riser
For Low profile Cards

Proprietary PCIe
Slot for GBT H
Type Cards

Universal I/O
(For Low-profile Slot
& GBT Add-on Card)

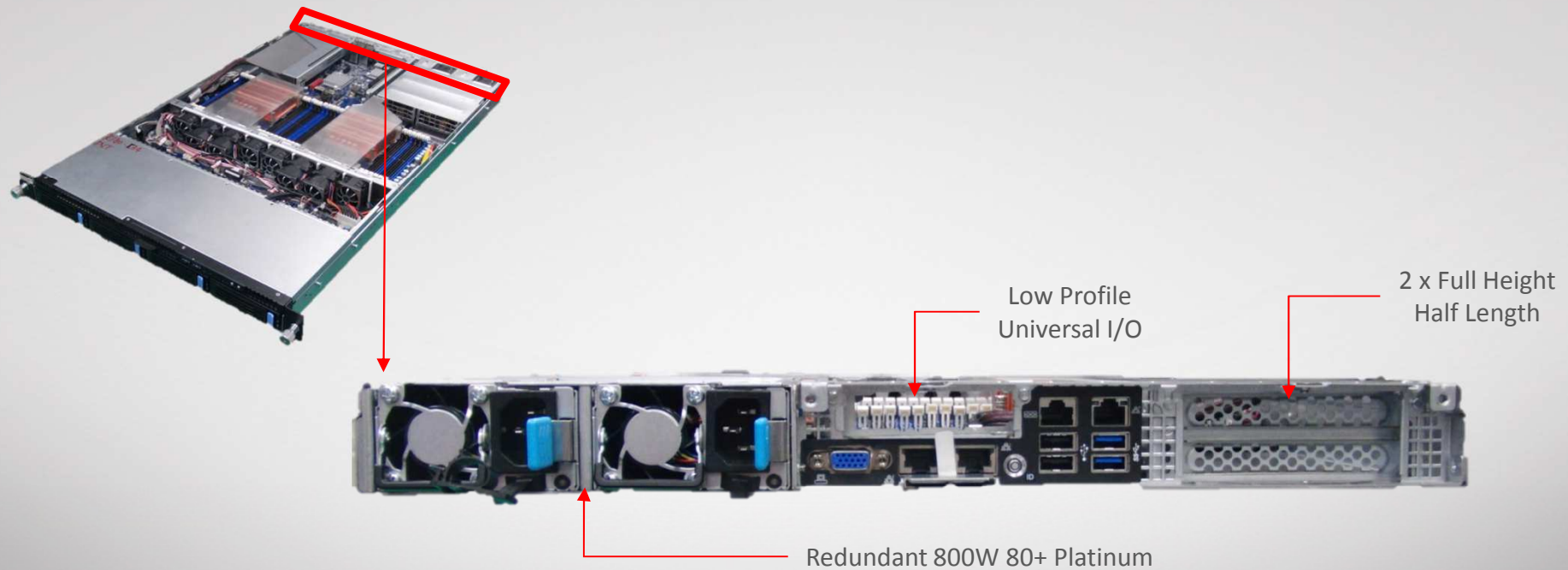
2 x Full Height Half Length Slot



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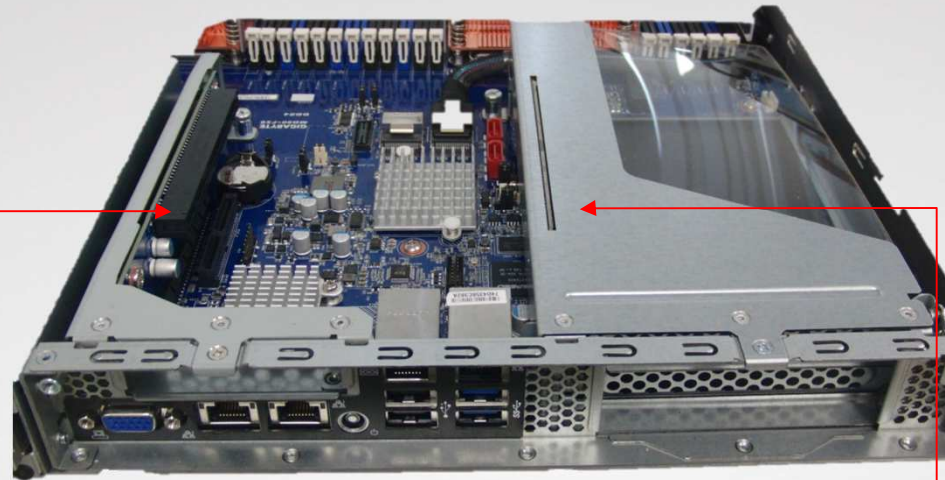
R180-F34/F28 – Key Feature 3



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R180-F34/F28 – Riser Cards



Model Name = CRS1010



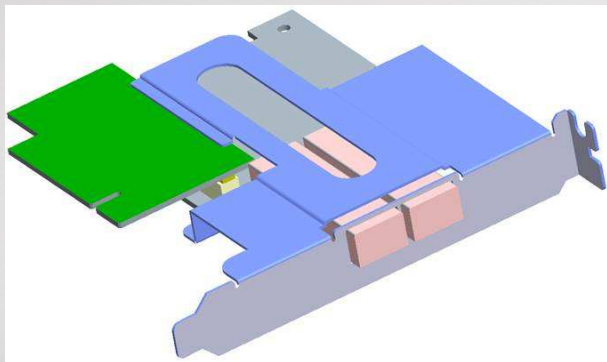
Model Name = CRS1020

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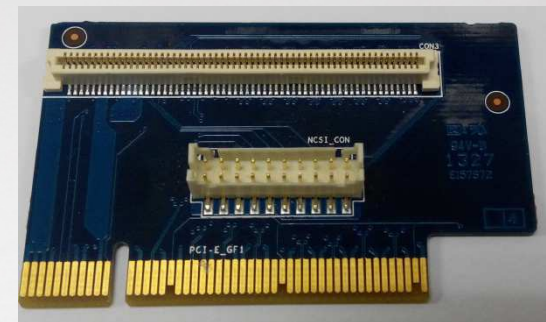
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Accessories – OCP

OCP Mezzanine card



Interposer



Accessories – Network Card

GC-MLBZ1 (LP)



GC-MLIZS (H Type)



GC-MLIZ (H Type)



Rear I/O	2 x 10GbE SFP+ ports	2 x 10GbE SFP+ ports	2 x 10GbE BASE-T ports
Controller	Broadcom BCM57810S	Intel 82599	Intel X540
Interface	PCIe x8 (2.0 x8 bus)	PCIe mezzanine card (2.0 x8 bus)	PCIe mezzanine card (2.0 x8 bus)
Dimensions	145 x 68.9 mm	76.8 x 98 mm	76.8 x 98 mm

Accessories – Network Card

GC-MNXE2 (H Type)



Rear I/O	Infiniband (FDR) ports
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Controller	Mellanox
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Interface	PCIe x8 (3.0 x8 bus)
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Dimensions	76 x 98 mm
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Accessories – Storage Card

GC-MSLZ1 (H Type)



I/O	2 x Internal mini-SAS for 8 x SAS 6GB/s ports
Controller	LSI SAS2208
RAID	Hardware RAID RAID 0/1/5/6/10/50/60 RAID 5/6 XOR engine (single pass)
Interface	Mezzanine card (2.0 x8 bus)
Dimensions	76.8 x 98 mm

GC-MSLZ2 (LP)

NA
(Only for
Romley MB)

GC-MSLZ3 (LP)

NA
(Only for
Romley MB)

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Accessories – Storage Card

GC-MSLZ4 (LP)

GC-RA200-8 (LP)

GC-RA201-A (LP)

I/O

Controller

RAID

Interface

Dimensions

**NA
(Only for
Romley MB)**



2 x Mini-SAS for 8 x SAS 6GB/s ports

LSI SAS2308

Firmware RAID
RAID 0/1/1E/10

PCIe x8 (3.0 x8 bus)

145 x 68.9 mm



2 x Mini-SAS for 8 x SAS 6GB/s ports

LSI SAS2208

Hardware RAID
RAID 0/1/5/6/10/50/60

PCIe x8 (3.0 x8 bus)

165 x 68.9 mm

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Accessories – Storage Card

CRA333-8 (LP)



I/O

2 x Internal mini-SAS HD for 8 x
SAS 12 GB/s ports

Controller

LSI SAS3008

RAID

Firmware RAID
RAID 0/1/1E/10
Support MegaRAID

Interface

PCIe x8 (3.0 x8 bus)

Dimensions

167.64 x 68.9 mm

CSA4-02G (LP)

**Developing
(Waiting for
PMC Driver)**

167

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CSA4-03G (LP)

**Developing
(Waiting for
PMC Driver)**

167

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Operating Environment / Compliance

Operating Environment / Compliance	
Certification	FCC/CE certification
Environmental Spec	Operating temperature: 5°C to 35°C Operating humidity: 8-80% (non-condensing) Non-operating temperature: -40°C to 60°C Non-operating humidity: 20%-95% (non-condensing)
Compliance	RoHS REACH

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