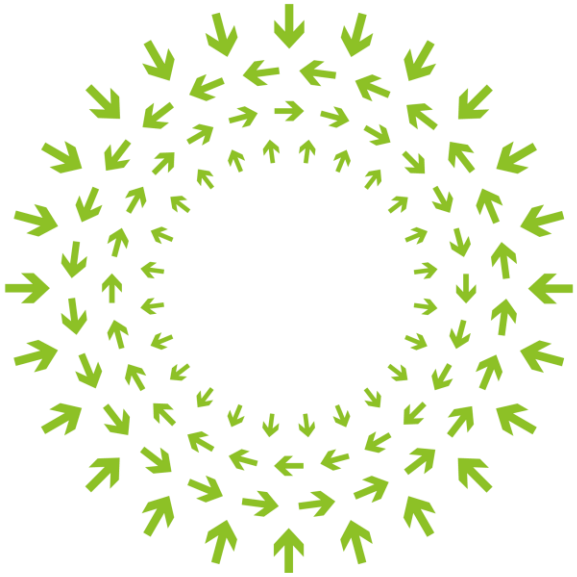

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Compute Project

QCT Rackgo X Leopard Cave

Product Marketing Specification

<Revision:1.0>

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Revision History

Revision	Date	Change Summary
1.0	2019/03/27	Product specification revision 1.0 release

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1. Overview

Introducing the Leopard Cave, an Open Compute Project v2 rack compliant multi-node compute system; a next generation platform that infuses the next generation of powerful dual Intel®Xeon® E5-2600 v3, v4 processors with 16 slots of 2400 MHz DDR4 memory for a total capacity of 1024GB to provide impressive high-density computing resources in each node that can handle multiple events concurrently. With up to three independent server nodes, the Leopard Cave is excellent for scale-out solutions in granular approach data centers to maximize hyper-scale performance.

Designed with the holistic principles of the OCP to be vanity free and without gratuitous differentiation, this unpolluted thermal design is devised to optimize airflow through the system to function in existing data center infrastructures. With an ambient operating temperature of up 40°C, power for cooling systems in data centers can be lowered to better protect the environment while considerably reducing operating costs.

The Leopard Cave features a uniform modular design concept with a compartment-design enclosure that allows flexible swapping of any compute or storage module. This enclosure is installed on the Open Rack v2 frame that utilizes a centralized power shelf to deliver all necessary power to each system in the rack through a singular bus bar to better optimize, economize and reduce CAPEX. The rack frame architecture and enclosure are developed to support future hardware solutions to ensure maximum usage of data center infrastructure investments. When upgrading hardware, simply swap any obsolete module with next generation modules.

Figure 1 QCT Rackgo X Leopard Cave - 6x SFF SKU

2. High Level System Features

1x LFF SKU is as example, please contact QCT Sales rep regarding 6x SFF SKU form factor

Processor	
Processor Type	Intel®Xeon® processor E5-2600 v3 product family Intel®Xeon® processor E5-2600 v4 product family
Number of Processors	2 Processors
Internal Interconnect	9.6 / 8.0 / 6.4 GT/s
L3 Cache	Up to 55MB
Form Factor	
Form Factor	3 Nodes 2 OU (Open Rack) Rackmount
Storage	
Storage	(1) 3.5” fixed drive bay per node
Dimensions	
W x H x D (inch)	21.14 x 3.67 x 33.58
W x H x D (mm)	537 x 93.2 x 853
Chipset	
Chipset	Intel® C610
Expansion Slot	
Expansion Slot	(1) PCIe Gen3 x8 OCP mezzanine card per node (1) PCIe Gen3 x16 FHHL PCIe card per node (1) PCIe Gen3 x8 FHHL PCIe card per node
Memory	
Total Slots	16 (per node)
Capacity	Up to 512GB of memory for RDIMM per node Up to 1024GB of memory for LRDIMM per node
Memory Type	2133/2400 MHz DDR4 RDIMM
Memory Size	32GB RDIMM 64GB LRDIMM
Front I/O	

Front I/O	(1) USB 3.0 per node (1) 1GbE RJ45 management port per node (1) RS232 serial port per node
Storage Controller	
Onboard	Intel® C610: (6) SATA 6Gb/s ports SATA RAID 0, 1, 10
Optional Controller	Please refer to the Compatible Components List for more information
Fan	
Fan	(2) Single rotor fan per node
Video	
Video	Integrated AST2400 with 8MB DDR3 video memory
System Management	
System Management	Option 1: AST1250 Option 2: AST2400 IPMI v2.0 Compliant, on board "KVM over IP" support Quanta Datacenter Manager 2.0/QDCM 2.0 (Optional)
Operating Environment	
Operating Environment	Operating temperature: 0°C to 40°C (32°F to 104°F) Non-operating temperature: -40°C to 65°C (-40°F to 149°F) Operating relative humidity: 20% to 85% RH Non-operating relative humidity: 40% to 90% RH
TPM	
TPM	Yes With TPM 1.2/ 2.0 Option
Network Controller	
Network Controller	Support following QCT OCP mezzanine cards (PCIe x8) for network options in front of IO per node: (1) QCT 1GbE RJ45 dual port OCP mezzanine card or (1) QCT 10 GbE RJ45 dual port OCP mezzanine card or (1) QCT 10G/25G SFP+ OCP dual port mezzanine card
Optional NIC	Please refer to the Compatible Components List for more information

Rack Compatible	
Rack Compatible	Open Rack v2
Note	
Note	Restriction applies. Please contact QCT Sales rep regarding 145W support

Table 1 High Level System Features

3. Block Diagram

Below describes the high-level functional block diagram of Base Board.

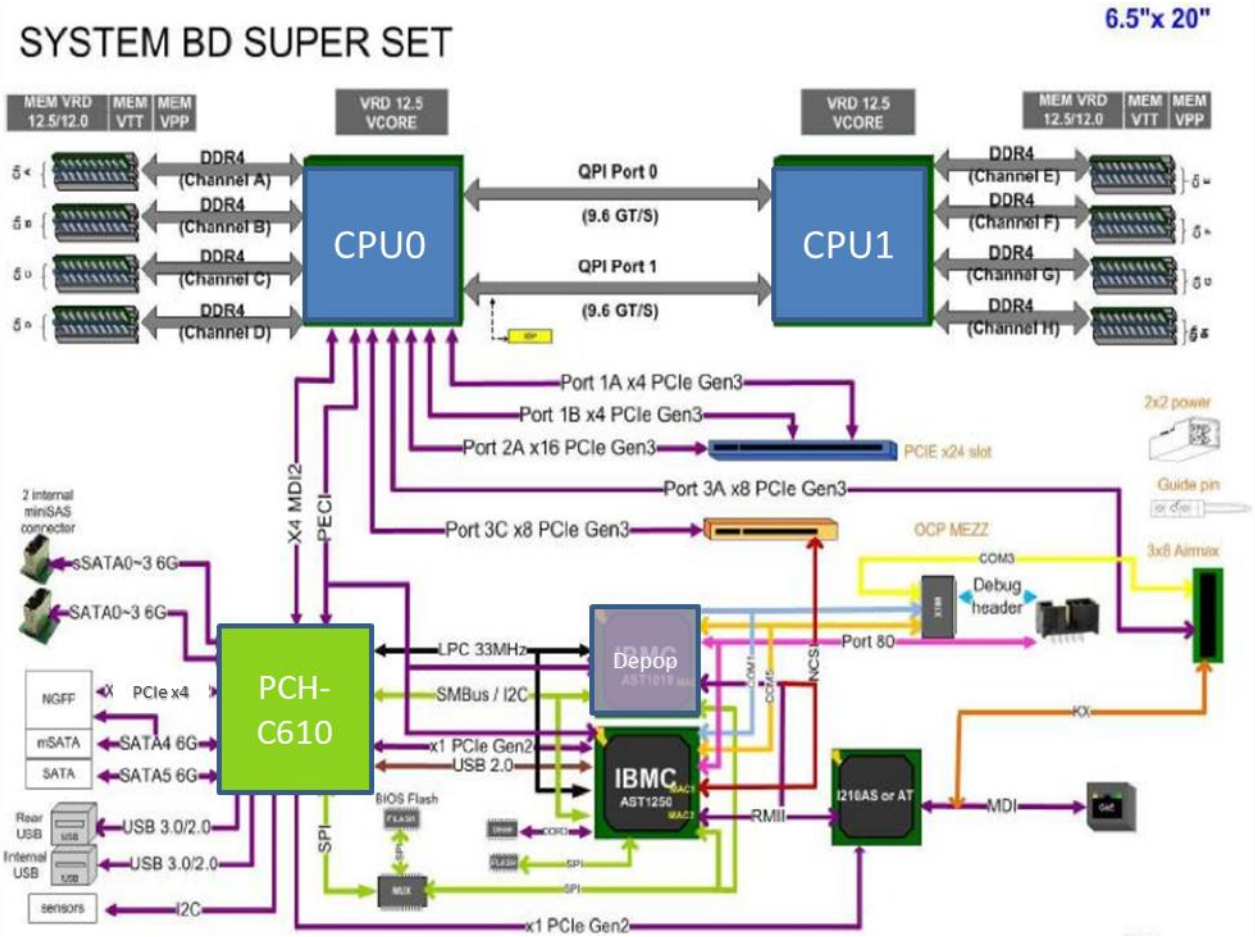

Figure 2 QCT Rackgo X Base Board Block Diagram

4. Mechanical View

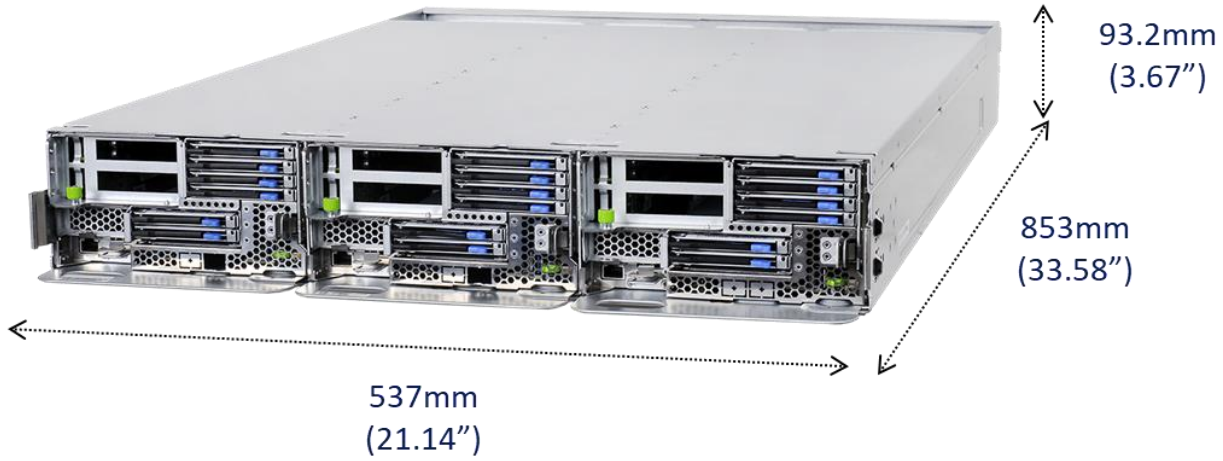

Figure 3 Mechanical Dimension

5. Ordering Information

- QCT Rackgo X Leopard Cave (1 Large Form Factor)
  - Part #: Rackgo X Leopard Cave 1F06ZZZ0STT
- QCT Rackgo X Leopard Cave (6 Small Form Factor)
  - Part #: Rackgo X Leopard Cave 1F06ZZZ0STU

6. OCP Tenets/Principle

- **Efficiency**
  - Multiple sleds design to trim the dimension requirement of compute node to achieve the optimization of space use in the chassis
- **Scalability**
  - Comply with common chassis to extend the various platform use case
- **Openness**
  - Comply with ORv2 standard
- **Impact**
  - NA

7. Reference

. Facebook Server Intel Motherboard v3.0