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QCT Rackgo X OCP AVA-4 M.2 Carrier Card
Product Marketing Specification

<Revision:1.1>

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Revision History

Revision	Date	Change Summary
1.0	2018/04/23	Product specification revision 1.0 release
1.1	2018/10/15	<ol style="list-style-type: none">1. Add the OWFa 1.0 license information2. Update the product name to "QCT Rackgo X OCP AVA-4 M.2 Carrier Card"3. Update the description

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CONTENT

- 1. OVERVIEW 6**
- 2. HIGH LEVEL SYSTEM FEATURES..... 6**
- 3. BLOCK DIAGRAM..... 7**
- 4. MECHANICAL VIEW AND DIMENSION 8**
- 5. COMPONENT PLACEMENT..... 8**
- 6. COMPATIBLE COMPONENTS LIST & USER GUIDE..... 8**
- 7. OCP TENETS/PRINCIPLE 9**
- 8. REFERENCE..... 9**

LIST OF FIGURE

Figure 1 QCT Rackgo X OCP AVA-4 M.2 Carrier Card.....	6
Figure 2 QCT Rackgo X OCP AVA-4 M.2 Carrier Card Block Diagram	7
Figure 3 Mechanical Dimension.....	8
Figure 4 Key Part Placement (Top side)	8

LIST OF TABLE

Table 1 High Level System Features	6
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1. Overview

The product marketing specification describes “QCT Rackgo X OCP AVA-4 M.2 Carrier Card” is storage extension card with Full Height Half length (FHHL) form factor. That supports up to 4x NVMe M.2 form factor SSD. M.2 supported type could be either 110mm (Type 22110) or 80mm (Type 2280) dual sided M.2 modules.



Figure 1 QCT Rackgo X OCP AVA-4 M.2 Carrier Card

2. High Level System Features

Product Description	
Product Description	QCT Rackgo X OCP AVA-4 M.2 Carrier Card
Form Factor	
Form Factor	Full Height Half Length (FHHL)
Interface	
Interface	PCIe 3.0 x16 for driving 4x NVMe M.2 SSD
SSD Support Type	
SSD Support Type	Up to 4x 110mm (Type 22110) or 80mm (Type 22080) dual sided M.2 SSD
Environmental Requirements	
Environmental Requirements	<ul style="list-style-type: none"> • Gaseous contamination: Severity Level G1 per ANSI/ISA 71.04-1985 • Ambient operating temperature range: -5°C to +45°C • Storage temperature range: -40°C to +70°C (long-term storage) • Transportation temperature range: -55°C to +85°C (short-term storage) • Operating and storage relative humidity: 10% to 90% (non-condensing) • Operating altitude with no de-rating to 2,000m (6,600 feet)

Table 1 High Level System Features

3. Block Diagram

Below describes the high-level functional block diagram of QCT Rackgo X OCP AVA-4 M.2 Carrier Card.

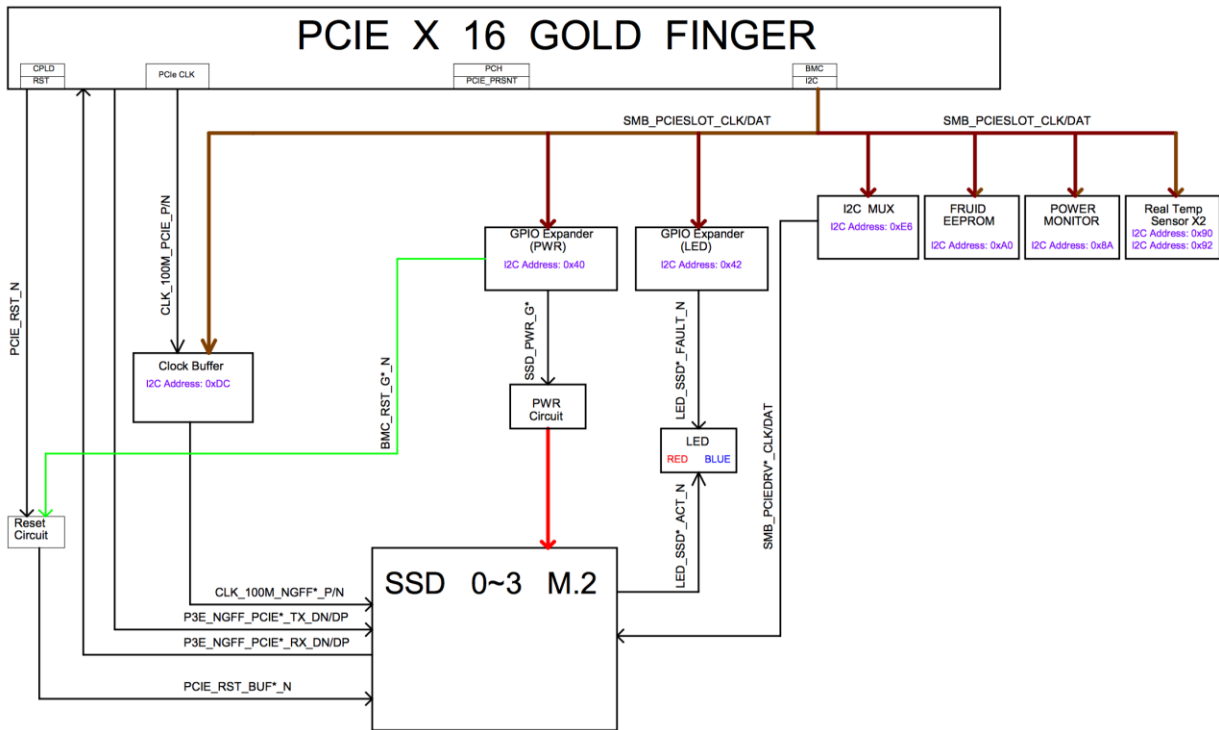


Figure 2 QCT Rackgo X OCP AVA-4 M.2 Carrier Card Block Diagram

4. Mechanical View and Dimension

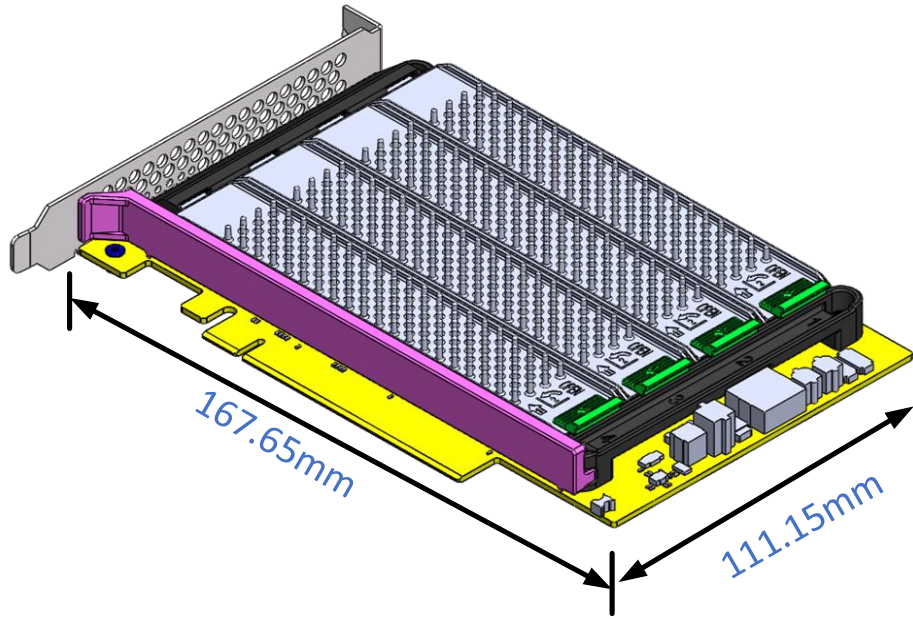


Figure 3 Mechanical Dimension

5. Component Placement

The key part placement of QCT Rackgo X OCP AVA-4 M.2 Carrier Card is shown as below:

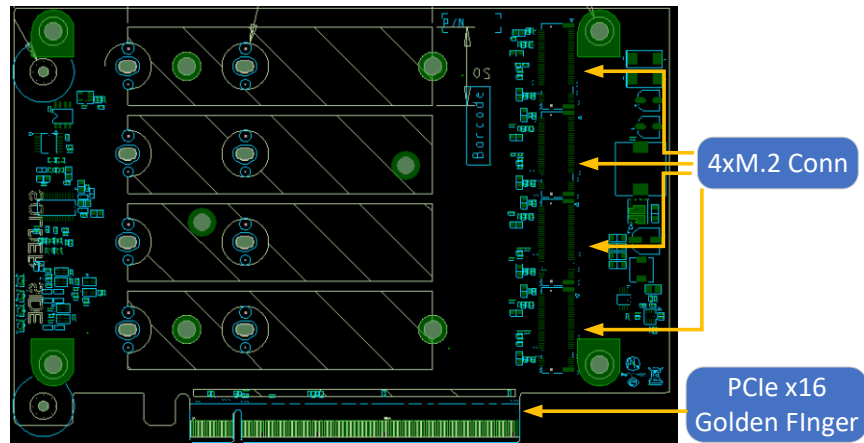


Figure 4 Key Part Placement (Top side)

6. Compatible Components List & User Guide

- PCIe Bifurcation Requirement:

- Please be noted that this card only works with the compatible system, like “QCT Rackgo X Tioga Pass”.
- If you plan to adopt or use this card on your own systems directly, please check with your system solution provider to ensure the PCIe lanes for standard PCIe add-in card can be configured or bifurcated to 4x4 for the four M.2 devices which are installed on the AVA-4 M.2 carrier card.
- No supports hot-plug
- PCIe protocol only, no SATA interface support

7. OCP Tenets/Principle

- Efficiency
 - Up to scalable 4x M.2 modules with double side heatsink could be used in the environment-friendly data center and cut the TCO (Total Cost of Ownership)
- Scalability
 - Design with full height dimension which meets PCI SIG CEM standard to be easily adopted for deployment of compute node with storage
- Openness
 - Design with full height dimension which meets PCI SIG CEM standard, with limited design effort on compute node
- Impact
 - Easily expand the storage pool with existing compute node, reduce the design effort and reserve more space for baseboard design

8. Reference

- Facebook M.2 Carrier card v1.0 spec.