Small JBOG solution

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OCP solutions

Big Basin
- 8 Nvidia Tesla P100 GPU
- Connected to server head node

Big Sur
- 8 K80/M40 series GPU
- Intel Xeon E5-2600
## Overview of the project

<table>
<thead>
<tr>
<th>Item</th>
<th>Description/Major components</th>
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<tbody>
<tr>
<td>Baseboard</td>
<td>1 PCIe switch</td>
</tr>
<tr>
<td></td>
<td>4 x16 PCIe Gen3 slots</td>
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<td></td>
<td>BMC</td>
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<td></td>
<td>Power connector from rack bus bar</td>
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<td></td>
<td>4 mini SAS HD connector</td>
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<td></td>
<td>BMC network port</td>
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<td></td>
<td>Debug support</td>
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<td></td>
<td>LEDs</td>
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<td></td>
<td>USB connector</td>
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<tr>
<td>Host side bridge card</td>
<td>4 mini SAS HD connector</td>
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<td></td>
<td>X16 PCIe Gen3 retimer</td>
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<tr>
<td>Fans</td>
<td>TBD</td>
</tr>
<tr>
<td>Power supply</td>
<td>Should be compatible with Discovery chassis and Open Rack V2</td>
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<tr>
<td>Chassis</td>
<td>TBD</td>
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</table>
Electrical specification
Electrical specification

• Hot plug at JBOG level and endpoint level
• On board reset system
• Remote management via BMC
• 1x RJ45 connector
• 1x USB connector
Power specification

- Power delivered is 12V
- 4x GPU around max 300W
- OVP, OCP and UVP
- Hot Swap Controller
- Compliant ORV2 and Discovery
- 1500W max for the board
- Fully protected
- Work continuously
Power specification

12V busbar

HSC

12V aux

12V Fan 5Vaux 3.3Vaux

2.5Vaux 1.2Vaux 1.15Vaux

HSC

12V

5V 3.3V 1.8VCC 1.8VCCA 0.9VCC 0.9VCCA
Mechanical specification
Mechanical specification

Compatible with:

- ORV 2 ➔ special chassis needed
- Sesame Fast-Start ➔ JBOG plugged directly
Product/Facility Info

Sesame Fast-Start

ITRenum Marketplace: https://www.itrenew.com/sesame-solutions

ORV 2
Call to Action

• Any ideas are welcome!

• First prototype by Q3 2020

• https://github.com/SesameEngineering
Thank you for your attention!
Open for All.

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