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OCP Accelerator Module (OAM) with Intel® Nervana™ Neural Network Processor (NNP) L-1000 Product Family

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Intel® Nervana™ NNP L-1000 Mezzanine Module Specification

• OCP Accelerator Module (OAM) Design Specification v0.85
• Module Dimension
  • 102mm x 165mm
• Power Consumption
  • 200W and 425W
• High Speed Inter-Chip Link (ICL) SerDes
  • 16 ICL SerDes ports
  • Each ICL SerDes port is x4 lanes
Intel® Nervana™ NNP L-1000 Mezzanine Module

Heatsink Reference Design
8x Intel® Nervana™ NNP L-1000 Module System Implementation

• Voltage and Power Requirement
  • 40-60V and 3.3V Voltage Input
  • Total of 3400W with 8x 425W Intel® Nervana™ NNP L-1000 Mezzanine Module

• Thermal Solution
  • 3U/3OU Passive Air Cooled up to 35C ambient temperature

• Multi-Module Deep Learning Topology and Connectivity
  • Hybrid Cube Mesh (HCM)
  • PCB Routing
  • External QSFP-DD Cables
8x Intel® Nervana™ NNP L-1000 Module Baseboard Placement

QSFP-DD

PCIe Switch
Single Chassis HCM Topology and External Connectivity
Multi-Chassis HCM Topology and External Connectivity
Multi-Rack Multi-Chassis HCM Topology

HPC

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Multi-Rack Multi-Chassis HCM External Connectivity
Call to Action

Engage with **OCP Server WG** and provide feedback on OAM system level implementation
• Interconnect topology
• Multi-chassis scaling
• Thermal/Power solutions

Wiki under OCP Server Project:  

Register for Mailing list:  
[https://ocp-all.groups.io/g/OCP-OAM](https://ocp-all.groups.io/g/OCP-OAM)
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