Photonic Resource Unit 1000 (PRU)

Key Benefits

Latency – Direct connect, all photonic fabric provides the lowest possible latency allowing valuable machine resources to be directly connected in a machine cluster

Distance – Photonics eliminates the distance and physical locality challenges in the data center

Complexity – Removing stacked hierarchies of switches, protocols and overlays is the most direct way to remove complexity

Efficiency – Grouping resources via direct connect around workloads resolves the stranded resource challenge

Security – Workloads do not transgress over racks, spines and cores.

OPEX – Increased resource efficiencies means getting more from less: Less power, less cooling, less space

Better TCO – By decoupling the resource upgrade path from server upgrade path, users have a better fidelity of choice when and what to upgrade

Drut's Photonic Resource Unit 1000 is designed to host PCIe devices. The PRU 1000 supports connections to the Drut Photonic Fabric (PXC) with one or two tFICs. A PRU 1000 supports up to sixteen (16) PCIe 4.0/3.0 slots and the ports are configurable to x8 or x16.

You can fill the PRU 1000 with PCIe form factor devices such as GPUs, FPGAs, SmartNICs, NICs, IPUs, TPUs and Nvme storage cards.

PRU 1000 Advantages

By disaggregating the data center resources via a photonic fabric a number of architecture design advantages can be realized.

- **Heterogeneous Device Support**: The PRU 1000 allows you to deploy a mix of PCIE device types from a variety of manufactures and compose machines with these devices.

- **Discreet Upgrade Paths**: By deploying the data center around pools of resources, devices within the pool can be upgraded independent of the server/CPU complex.

- **Better Resource Utilization**: Composing machines of resources around workload requirements and using a direct connect photonic fabric results in better resource utilization versus traditional stacked switching architectures.

- **Attach/Detach Capability**: PRU 1000 enables PCIe resources to be hosted and dynamically attached and detached from services via Drut's Fabric Manager (DFM) Software.

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Ordering Information

Product: PRU 1000
Code: DRT-HW-PRU-1000
Description: Photonic Resource Chassis

Related Datasheets

Drut Fabric Manager (DFM)
Drut Software Platform (DSP)
Drut FIC 1000
Drut Photonic Fabric (PXC)

PRU 1000

Specifications

PCIe Single Width Slots	16
PCIe Double Width Slots	8
FIC 1000 Support	1 or 2
Power	Two (2) 1200W PSU Hot Swappable
Operating Temp	0°C ~ 35°C (32°F ~ 95°F)
Dimensions	5U219(H) x 435(W) x 450(D) mm
Safety	AS/NZS CISPR32, class A EN 55032, class A EN 55024 EN 61000-3-2 EN 61000-3-3 FCC Part15B, class A RoHS Directive 2011/65/EU