PARPRO

O3E-110
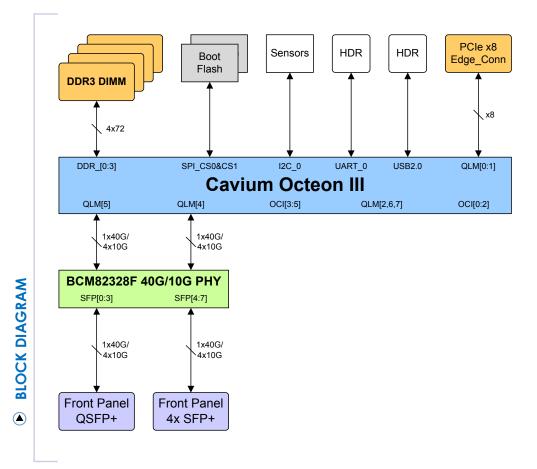## PCI Express Cavium OCTEON III CN78XX Packet Processor Card

SUMMARY

The PARPRO O3E-110 Accelerator Card is a high-performance network processor PCI Express card designed for use in PCI Express compliant systems. It features the latest Cavium OCTEON III CN7890 Network Processor with up to 2.0GHz clock rate.

The O3E-110 features up to 128GB of quad-channel 72-bit wide DDR3 ECC memory running up to 2133MT/s. One QSFP+ and four SFP+ interfaces are provided on the front panel, supporting 40GigE or 10GigE. Refer to the block diagram for detail.
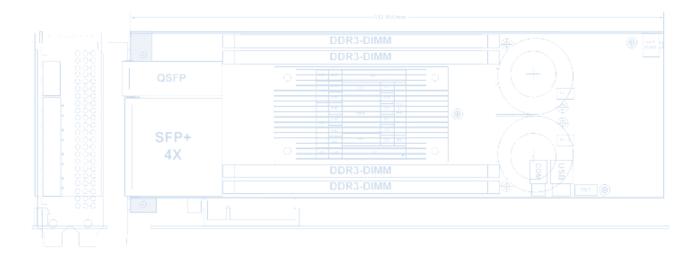
APPLICATIONS

Packet Processing

Deep Packet Inspection

High Frequency Trading

Load Balancing

BLOCK DIAGRAM

O3E-110

Network Processing Units (NPUs)	Cavium Networks OCTEON III CN7890 - Single processor with clock rate of up to 2.0GHz 48 cnMIPS64 III processor cores and multiple accelerator engines - Up to 48-way SMP Linux and Cavium Simple Executive
Memory	Up to 128GB of DDR3 memory w/ ECC on quad-channel x72 bus DDR3 clock rate of 2133MT/s Final clock rate for quad-rank configuration TBD by Cavium
I/O Capabilities	Four (4) front panel SFP+ sites plus one (1) QSFP+ site Supports 40GigE or 10GigE (via breakout cable) PCI Express Gen3 x8 to base board USB 2.0 (host) header 3-pin header for debug UART
Mechanical	Standard dual-slot PCI Express card form factor 312mm long full height 6-pin aux power connector
Environmental	Operating temperature range: 0 to 40 °C Humidity: 0 to 95% (non-condensing) Power consumption: 208W (max)