

## iSPAN<sup>®</sup> 56MC2 OCTEON<sup>™</sup> Plus PCI Express 10 GE Packet Processor

*High Performance Packet Processing for Broadband Networks*

### FEATURES

PCI-Express V1 x4 or x8  
Standard Height, Full Length

Cavium Networks high performance OCTEON Plus 56xx family of Packet Processors

Front panel I/O options:

- 2x 10 GE SFP+
- 1x 10 GE SFP+

Other application toolkits available include:

- Policy Management and Routing
- On board RTP/RTCP processing
- GTP-u protocol support
- Compression / De-compression off-load

### APPLICATIONS

*Media Servers*

*VoIP*

*Edge/Access Routers*

*Policy Enforcement*

*Wireless Gateways (Enterprise & Carrier)*

*Deep packet Content Inspection*

*Line rate crypto and security functions*

*Stateful Protocol Identification*

### Wire-Speed Packet Processing

The Interphase iSPAN<sup>®</sup> 56MC2 PCI Express Packet Processor Card extends the broad portfolio of communication processing and network processing solutions to address the growing need for 10 GE wire-speed packet processing solutions for the delivery of broadband services in the Enterprise, Wireless (3G, WiMax, WLAN, Femtocell), Voice Over IP and IMS network infrastructure.

### High Performance – Multicore Processor

The 56MC2 is based on the Cavium OCTEON Plus high-performance multi-core processor architecture which provides:

- A pin compatible chip that can support 8 to 12 cnMIPS<sup>®</sup> Plus MIPS 32/64 architecture compatible cores
- Per core hardware acceleration for packet processing and security including addition of support for Kasumi for wireless security
- Integrated co-processors for packet I/O, compression/decompression, IDS and anti-virus

### Flexible Architecture

With its one or two 10 GE interchangeable SFP+ modules, powerful onboard OCTEON Plus packet processor, dual management interface and upgradeable memory, the iSPAN 56MC2 is extremely versatile and provides the functionality necessary for migrating to next-generation infrastructures and converged networks.

Cavium Simple Executive and Linux<sup>®</sup>-based ready-to-use application / protocol suites are available to transform the 56MC2 into a specialized communications interface which can be easily integrated into solution platforms.



## 56MC2 Oocteon Plus 10 GE Packet Processor Card

### External Interfaces

- Single or Dual 10 Gigabit Ethernet
  - SFP+ receptacles on the front panel for maximum configurability (SFP+ Modules must be purchased separately)

### PCI Express Connectivity

- 2x 10 GE: PCI-Express x4
- 1x 10 GE: PCI-express x8

### Processor

The iSPAN 56MC2 is designed around the Cavium OCTEON Plus 56xx processor family:

- Support for NSP, or CP device family options
  - NSP – Network Services Processor supports encryption, TCP acceleration, compression/decompression, networking and QOS
  - CP – Secure Communications Processor supports encryption, networking, TCP acceleration and QOS

### Memory

- Up to 4 GB of DDR2 SDRAM Memory (1 GB Standard)
- 8 MB downloadable 8-bit Boot Flash Memory
- Up to 2 GB of downloadable NAND Flash memory
- Optional 128MB of Persistent Memory

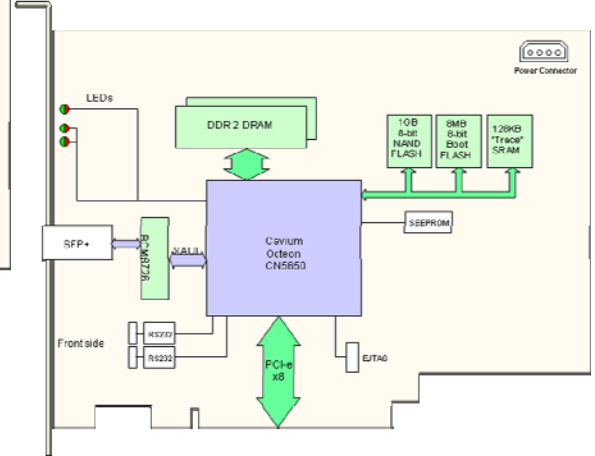
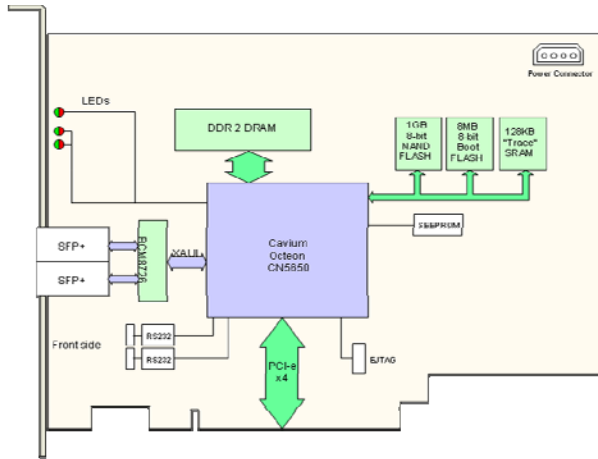
### Operating Systems

- Cavium Simple Executive
- Wind River PNE Linux® distribution with Cavium OCTEON extensions
- Cavium Linux

### Applications

Interphase provides ready-to-use application / protocol suites that transform the 56MC2 into a specialized communications interface which can be integrated into solution platforms.

Packet Processing Modules available from 3<sup>rd</sup> parties include: TCP/IP off load, IPv4 & IPv6 stacks, Unicast and multi-cast routing acceleration, IPSEC acceleration, Stateful Firewall, SRTP Offload, Transport Protocols, and Mobile-IP.



### Technical Specifications

#### Architecture

Processor: OCTEON Plus 56xx processors running at up to 800MHz  
8, 10, or 12 Core

#### Memory

RAM: Up to 4GB of DDR2 SDRAM System memory

Flash: 8 MB NOR Flash, Up to 2 GB NAND Flash  
Persistent Memory: Optional 128 MB

#### Mechanical

Form Factor: PCI Express, Standard Height, Full Length  
Length: 255 mm (10 in)  
Width: 98 mm (3.86 in)

#### Operating Environment

Power Consumption: < 70W typical depending on number of cores (8, 10, or 12), processor speed, and memory  
Temperature: 0 to 55°C (32 to 144.5 °F)  
Storage Range: -40 to 80 °C (-40 to 176 °F)  
Relative Humidity: 5% to 95% non-condensing  
Altitude: 0 to 2000 M (0 to 6500 ft)



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#### About Interphase Corporation

Interphase Corporation (NASDAQ: INPH) delivers solutions for network connectivity, interworking, and packet processing for key applications for the communications, Mil/Aero, and enterprise markets. Founded in 1974, Interphase provides expert customization services and contract manufacturing, in addition to its COTS portfolio, and plays a leadership role in next generation AdvancedTCA® (ATCA), AdvancedMC™ (AMC), PCI-X, and PCIe standards and solutions. Interphase is headquartered in Plano, Texas, with sales offices across