



## iSPAN<sup>®</sup> 36CA OCTEON<sup>™</sup> Plus AdvancedMC<sup>™</sup> Packet Processor

*High Performance Packet Processing for Broadband Networks*

### FEATURES

AMC.0 R2.0 Mid-size / Full  
AdvancedMC

Cavium Networks high  
performance OCTEON Plus  
58xx family of Packet  
Processors

4x GbE (AMC.2) plus PCI-E x4  
(AMC.1) to carrier

4x GbE interfaces on front panel

RTM connectivity for rear-  
access operation

RLDRAM for REGEX operations

Rich Ecosystem of software  
tools and applications available  
through Interphase Partners  
including:

- TCP/IP off load
- Wire-speed IPSEC  
acceleration
- SRTP Off-load
- IPv4/IPv6 L2/L3 wire-speed  
forwarding
- Policy Management and  
Routing
- On board RTP/RTCP  
processing
- GTP-u protocol support
- Compression / De-  
compression off-load

### APPLICATIONS

*Media Servers*

*Node-B/RNCs*

*VoIP*

*Edge/Access Routers*

*Deep packet Content Inspection*

*Line rate crypto and security functions*

*Stateful Protocol Identification*

*Policy Enforcement*

### Wire-Speed Packet Processing

The Interphase iSPAN<sup>®</sup> 36CA AdvancedMC<sup>™</sup> Packet Processor card extends the broad portfolio of communication processing and network processing solutions to address the growing need for wire-speed packet processing solutions for the delivery of broadband services in the 3G Wireless, Voice Over IP and IMS network infrastructure.

### High Performance – Multi-Core Processor

The 36CA is based on the Cavium OCTEON Plus high-performance multi-core processor architecture which provides:

- A pin compatible chip that can support 4 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 four interchangeable SFP modules, powerful onboard Octeon Plus packet processor, dual management interface and upgradeable memory, the iSPAN 36CA 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 36MC1 into a specialized communications interface which can be easily integrated into solution platforms.





## 36CA OCTEON Plus Packet Accelerator Card

### Processor

The *i*SPAN 36CA is designed around the Cavium OCTEON Plus 58xx processor family:

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

### Memory

- 1GB of DDR2 SDRAM Memory
- Optional up to 32 MB of RLDRAM with NSP or EXP Processor
- 16 MB downloadable 8-bit Boot Flash Memory
- 1 GB of downloadable NAND Flash memory for firmware storage organized in dual banks
- Optional 16 MB of Persistent Memory

### AdvancedMC Connectivity

- Gigabit Ethernet link options:
  - AMC.2 Type 2E2, ports 0, 1, 8, 9
  - AMC.2 Type 4, ports 8-11
- PCI-Express
  - AMC.1 Type 4 x4 PCI-Express lanes on ports 4-7
  - PCI Express 100 MHz clock on AdvancedMC CLK3

### External Interfaces

- Four Gigabit Ethernet Links. Options:
  - SFP receptacles on the front panel for maximum configurability. SFP Modules must be purchased separately
  - RTM ports 17-20
- One RS-232 console port

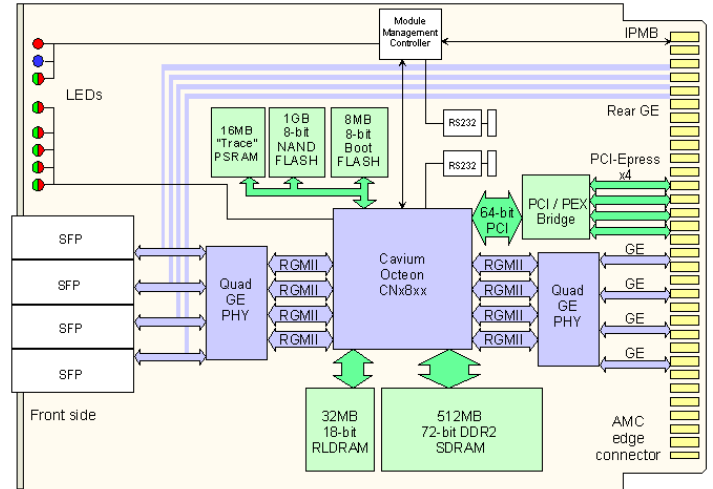
### Operating Systems

- Cavium Simple Executive
- Wind River PNE Linux<sup>®</sup> distribution with Cavium OCTEON extensions

### Applications

Interphase supports WindRiver PNE Linux<sup>®</sup> distribution with Cavium OCTEON extensions and the Cavium Networks “Simple Executive”.

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 58xx processors running at up to 600MHz
  - Mid-size: 4 or 8 core
  - Full-size: 4, 8, or 12 Core

#### Memory

- RAM: 1GB of DDR2 SDRAM System memory
- Flash: 16 MB NOR Flash, 1 GB NAND Flash
- RLDRAM: Optional up to 32 MB
- Persistent Memory: Optional 16 MB

#### Connectivity

- AMC.1 Type 4 (x1 PCI Express)
- AMC.2 Type2 and Type E2

#### Mechanical

- Form Factor: AMC.0 R2.0 Mid-size AdvancedMC
- Length: 180.6 mm (7.11 in.)
- Width: 73.5 mm (2.89 in.) (single-width)

#### Operating Environment

- Power Consumption: 35W to 45 typical depending on number of cores (4,8 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 LTE and WiMAX, interworking gateways, packet processing, network connectivity, and security for key applications for the communications and enterprise markets. Founded in 1974, Interphase provides expert engineering design and electronics manufacturing services, in addition to its commercial-off-the-shelf (COTS) product portfolio. Interphase is headquartered in Plano, Texas, with sales offices in the United States and Europe.

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