*i*SPAN® 36MC2 10 GE OCTEON™ Plus Packet Processor AdvancedMC™

High Performance Packet Processing for Broadband Networks

FEATURES

AMC.0 R2.0 Mid-size or Full Size AdvancedMC

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

GE (AMC.2) plus PCI-E x4 (AMC.1) to carrier

Front panel I/O options:
- 2x 10 GE SFP+
- 1x 10 GE SFP+
- Synchronous Ethernet

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	*Deep packet Content Inspection*
Node-B/RNCs	*Line rate crypto and security functions*
VoIP	*Stateful Protocol Identification*
Edge/Access Routers	*Policy Enforcement*

Wire-Speed Packet Processing

The Interphase *i*SPAN® 36MC2 Packet Processor AdvancedMC™ 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 3G Wireless, Voice Over IP and IMS network infrastructure.

High Performance – Multicore Processor

The 36MC2 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® 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 *i*SPAN 36MC2 is extremely versatile and provides the functionality necessary for migrating to next-generation infrastructures and converged networks.

Cavium Simple Executive and Linux®-based ready-to-use application / protocol suites are available to transform the 36MC2 into a specialized communications interface which can be easily integrated into solution platforms.

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36MC2 OCTEON™ Plus 10 GE Packet Processor

External Interfaces

- Single or Dual 10 Gigabit Ethernet
  - SFP+ receptacles on the front panel for maximum configurability
    (SFP+ Modules must be purchased separately)
  - Synchronous Ethernet
  - One RS-232 console port

AdvancedMC Connectivity

- Gigabit Ethernet
  - AMC.2 Type E2, ports 0,1 (2x 10 GE)
  - AMC.2 Type 5E2, ports 0, 1 / XAUI ports 8, 9, 10, 11 (1x 10 GE)
- PCI-Express
  - AMC.1 Type 4 x4 PCI-Express lanes on ports 4-7
  - PCI Express 100 MHz clock on AdvancedMC CLK3

Processor

The *i*SPAN 36MC2 is designed around the Cavium OCTEON Plus 56xx processor family:

- Support for NSP, or CP device family options
  - NSP – Network Services Processor supports encryption, reg-ex acceleration, 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 for firmware storage organized in dual banks (1 GB Standard)
- Optional 16MB of Persistent Memory

Operating Systems

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

Applications

Interphase provides ready-to-use application / protocol suites that transform the 36MC2 into a specialized communications interface which can be integrated into solution platforms.

Packet Processing Modules available from 3rd 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 600MHz - Mid-size: 8 or 10 core - Full-size: 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 16 MB
Mechanical	
Form Factor	AMC.0 R2.0 AdvancedMC Mid-size or Full Size
Length	180.6 mm (7.11 in.)
Width	73.5 mm (2.89 in.) (single-width)
Operating Environment	
Power Consumption	35W to 45W 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 the globe.