DATACOM PRODUCT

VSC7320

VITESSE

Meigs-I[™] - 10 x 1 Gigabit Ethernet MAC Chip



FEATURES:

- ▶ 1 x 10 Gb/s Ethernet XGMII Interface
- CSIX-64 AC_Class2 Host Interface
- Full Bandwidth, Non-Blocking Performance on Receive and Transmit
- Internal Short-Haul Flow Control Memory
- ▶ 1024 kbit Ingress and 768 kbit Egress FIFO
- Advanced Link Aggregation/Trunking Based on SMAC/ DMAC/ MPLS Label
- ▶ Aggregation/Trunking Between XGMII and CSIX Interfaces
- ▶ Intelligent VLAN and MPLS Tagging and Un-tagging
- Serial CPU Interface for Register Access
- RMON 1 Statistics Group and Applicable IEEE802.3 and SNMP Statistics
- ASIC/FPGA Friendly CSIX-64 Interface
- ► Advanced Test Features Including Internal Loop-Back, Frame Collection, and Replay
- Jumbo Frame Support
- ▶ IEEE 802.3ae Compliant

SPECIFICATIONS:

- ▶ 1.8 V Core and CSIX-64 Power Supply
- ▶ 3.3 V I/O and CPU Interface Power Supply
- ▶ 792-Pin EBGA Package

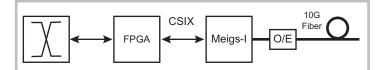
APPLICATIONS:

- ▶ 10 Gigabit Ethernet MAC
- ▶ 10GbE Switch-Blades for Enterprise Based Routers
- ▶ 10GbE Switch-to-Switch Interconnects and Uplink Port for Gigabit
- ▶ Ethernet-Based Long-Haul Data Transport
- Backbone Connectivity Systems for Metropolitan Optical Routers Systems and Server Farms

FUTURE-PROOF TECHNOLOGY:

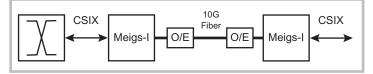
VSC7320 is part of a product roadmap that includes advanced 10 Gigabit Ethernet technology. As such, the architecture of VSC7320 is designed to take advantage of emerging and future technologies - effectively allowing manufacturers to future-proof switching applications.

10 GIGABIT CONNECTIVITY WITH FPGA:



Application using the Meigs-I and a customer specific FPGA to create a 10G switching connectivity

10 GIGABIT CONNECTIVITY:



Chipset application using Meigs-I directly to CSIX switch fabrics to create 10G switching connectivity www.DataSheet4U.com

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GENERAL DESCRIPTION:



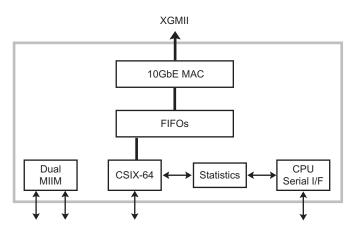
Meigs-I[™] is an advanced Ethernet MAC chip that offers a straightforward route to 10 Gigabit Ethernet (10GbE) connectivity.

It provides access to one 10 Gigabit full duplex Ethernet port (XGMII) though a FPGA/ASIC friendly, fully standard compliant CSIX host interface.

An on-chip FIFO capable of handling short-haul flow control is located between the Ethernet port and the CSIX-64 interface.

The advance and flexible link aggregation and trunking functionality in Meigs-I (based on SMAC/DMAC and MPLS labels), allows the 10GbE port to behave like ten separate virtual 10/100/1000 Mbps connections on the CSIX host interface side. The advantage of this is that this makes integration of 10GbE capability into existing Gigabit aware products much simpler than designing a 10 Gigabit Ethernet system from scratch.

VSC7320 BLOCK DIAGRAM:



In addition Meigs-I offers advanced management capabilities. For example, the device allows users to add OAM&P channels and/or other proprietary management schemes to native Ethernet data transport equipment, thereby enhancing the added value to customers and creating increased product differentiation.

There is a dual MII Management interface to set up and control the PHYs. The serial CPU interface provides access to all registers in Meigs-I.

A comprehensive set of statistics counters are built into Meigs-I and the design takes into account the latest developments in emerging 10 Gigabit standard.

Test features include cyclic replay of frames at a user definable rate - either built by the external CPU directly inside the FIFOs or captured from incoming traffic.

Your Partner for Success.

For more information on Vitesse Products visit the Vitesse web site at www.vitesse.com or contact Vitesse Sales at (800) VITESSE or sales@vitesse.com

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