

Introduction

The Octera 10G MAC is a highly configurable and customizable 10 gigabit Ethernet MAC that is compatible with HiGig/HiGig+/HiGig2 as well as standard Ethernet traffic.

Features

TX Path

- 64-bit Atlantic bus interface to L1 framer.
- Optional PAUSE flow control packet generation.
- L1 framing.
- (Optional) HiGig/HiGig2 header support.
- (Optional) VLAN tag insertion.
- CRC overlay.
- 64-bit Big Endian XGMII interface to XAUI PCS.

RX Path

- 64-bit Big Endian XGMII interface from XAUI PCS.
- MAC checking for undersized and undersized packets and bad CRC.
- (Optional) HiGig/HiGig2 header support.
- Header extraction.
- (Optional) VLAN tag processing.
- (Optional) PAUSE flow control packet parsing.
- Deframer outputs 64-bit Atlantic bus format.

Host Interface

- Avalon 32-bit host interface.
- Total RX and TX packet and byte counts.
- RX and TX packet counts by packet size bin.
- MAC error statistics.
- PAUSE frame statistics.
- Custom and L2 packet size configuration.
- VLAN tag configuration.

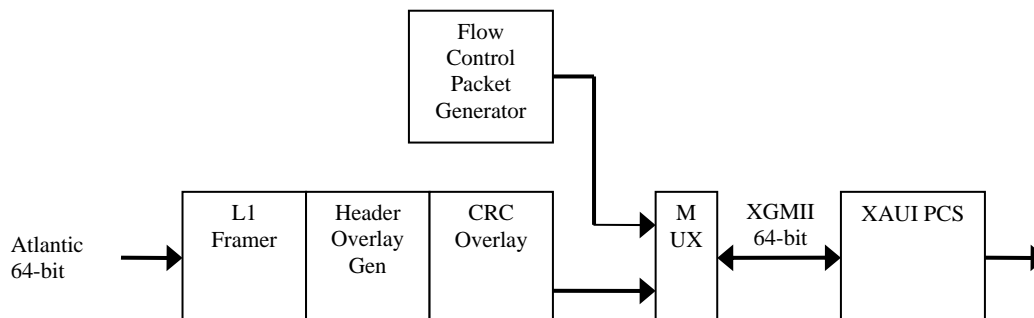


Figure 1: TX Path

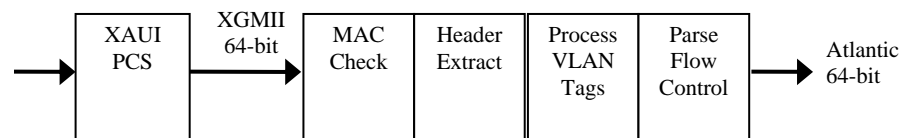


Figure 2: RX Path

Product code: OCT-10GMAC