DP83261 BMAC™ Device
(FDDI Media Access Controller)

General Description

The DP83261 BMAC device implements the Media Access Control (MAC) protocol for operation in an FDDI token ring. The BMAC device provides a flexible interface to the BSI™ device. The BMAC device offers the capabilities described in the ANSI X3T9.5 MAC Standard and several functional enhancements allowed by the Standard.

The BMAC device transmits, receives, repeats, and strips tokens and frames. It uses a full duplex architecture that allows diagnostic transmission and self testing for error isolation. The duplex architecture also allows full duplex data service on point-to-point connections. Management software is also aided by an array of on chip statistical counters, and the ability to internally generate Claim and Beacon frames without program intervention. A multi-frame streaming interface is provided to the system interface device.

Features

■ Full duplex operation with through parity
■ Supports all FDDI ring scheduling classes (asynchronous, synchronous, restricted asynchronous, and immediate)
■ Supports individual, group, short, long and external addressing
■ Generates Beacon, Claim and Void frames without intervention
■ Provides extensive ring and station statistics
■ Provides extensions for MAC level bridging
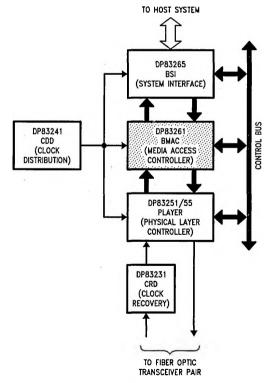■ Provides separate management interface
■ Uses low power microCMOS

FIGURE 1-1. FDDI Chip Set Block Diagram

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