MICROSEMI MAX24287 ETHERNET BUS CONVERTER

The MAX24287 Ethernet bus converter is a flexible, low cost Ethernet interface conversion device for interfacing a parallel gigabit media independent interface (GMII)/ MII interface to a serial GMII/1000BASE-X interface. This device is ideal for interfacing single-channel GMII/MII devices such as microprocessors, field programmable gate arrays (FPGAs), network processors, Ethernet-over-SONET or –PDH mappers and TDM-over-packet circuit emulation devices. The device also provides a convenient solution to interface such devices to electrical or optical Ethernet SFP modules.

Bus Conversion Solutions Address Key Customer Pains

- Evolution of Ethernet standards has created multiple generations of components with different MII Interfaces
- No other easy, flexible off the shelf solution to resolve the MII interface mismatch
- Alternative solution with back to back PHYs is expensive and inefficient
- Shortened life of cost efficient earlier generation processors due to MII interface mismatch increase BOM cost

Easy to Design

- Connects with neighbor components using industry-standard interfaces
- Simple configuration over high-speed MDIO interface
- Small footprint 8x8 mm TQFN

MAX24287 Block Diagram

Flexible

- Supports a wide range of serial and parallel interfaces and fits the majority of applications
- Serial: 1000BASE-X or SGMII
- Parallel: GMII, RGMII, TBI, RTBI or 10/100 MII
- GPIOs can be used as clocks and status

## Built-in Support for Synchronous Ethernet

- Data paths designed for SyncE clocking
- Provides SyncE reference to be used by the clock tree
- Receive clock divided and available on GPIO
- Transmit clock locked to a system reference

Availability and Support

Microsemi Clock Management products are in volume production. To learn more about Microsemi's bus converter products, visit www.microsemi.com/timing-and-synchronization/ieee-1588/max24287#overview. Full information, including complete data sheets and design manuals, is available to registered MyMicrosemi customers. To register for a MyMicrosemi account, visit www.microsemi.com/create-an-account.
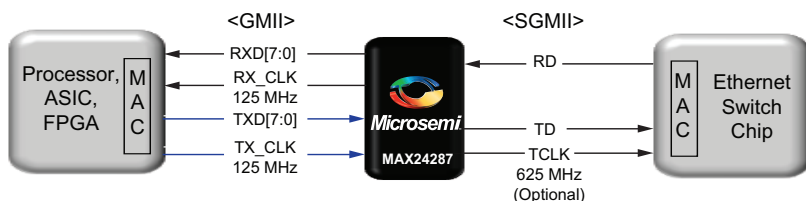
Applications

- Any system with a need to interface a component with a parallel MII interface (GMII, RGMII, TBI RTBI, 10/100 MII) to a component with an SGMII or 1000BASE-X interface
- Switches, Routers and Telecom equipment
- Industrial and Test equipment
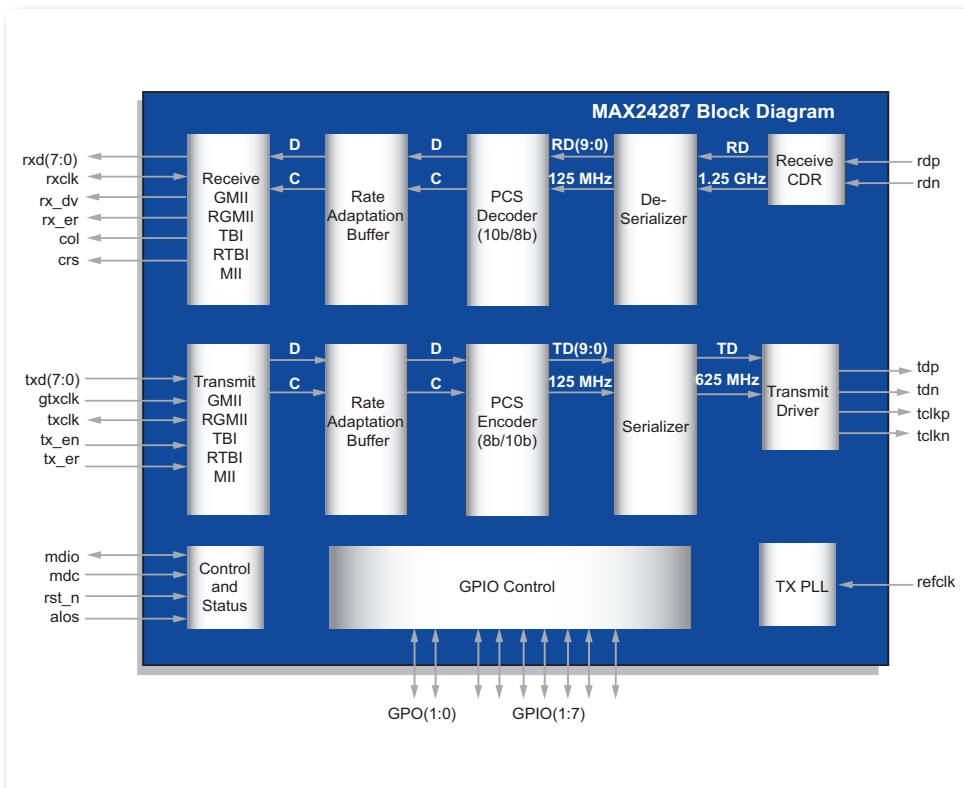
Featured Products

Application Examples

Copy Media
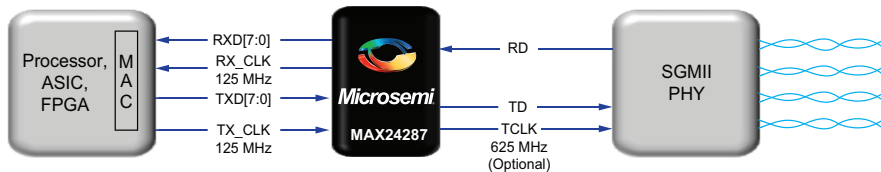
Connect Parallel MII Component to SGMII Component

Long PCB Trace Card-to-Card
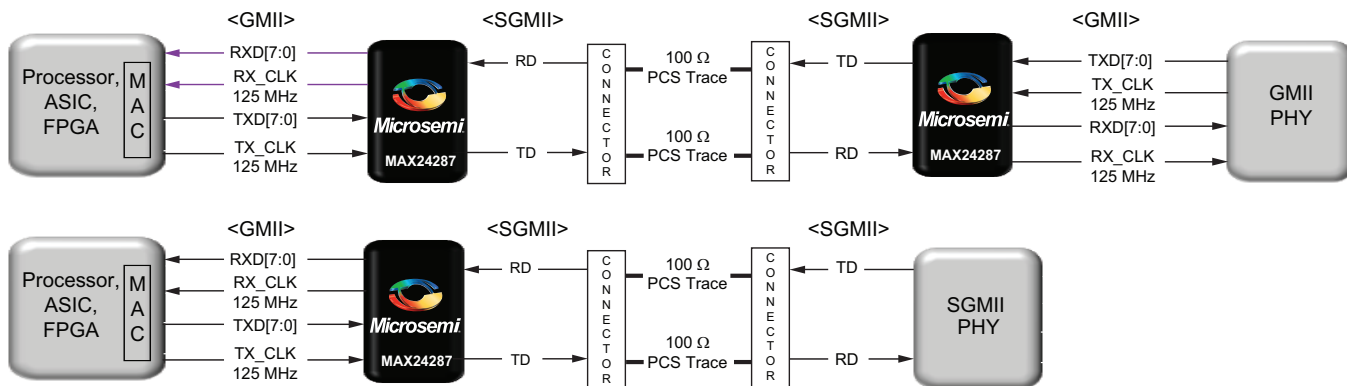
Fiber Module
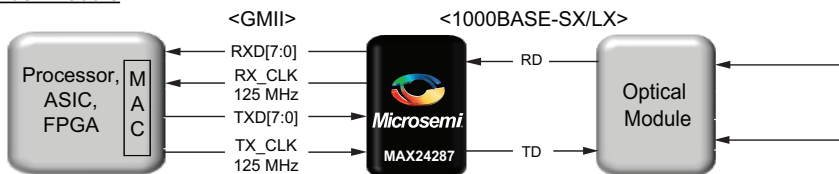
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