



QT1010

9.9Gb/s- 11.1Gb/s XFP COMPATIBLE BIDIRECTIONAL CDR

Features

- Integrated clock and data recovery for receive and transmit data path
- XFP MSA (telecom and datacom applications), IEEE802.3ae and 10GFC compliant
- Footprint and features optimized for XFP
- 9.95-11.1Gb/s modes of operation
- 0.74 W typical power dissipation
- Receive side Loss of Signal (LOS) indicator with adjustable threshold
- Integrated limiting amplifier (LA) on both receive and transmit side
- System and line side loopback
- XFI input equalization
- I2C or SPI configuration and monitoring
- Selectable input data polarity
- Adjustable output voltage swing
- Power down mode (independent receive and transmit paths)
- 10GHz recovered clock output option
- Transmit and Receive CDR output monitors
- Low noise 10GHz VCOs
- Transmit and receive lock detection
- 7x7mm RoHS Compliant Package (0.8mm ball pitch)
- +3.3V and +1.8V power supplies
- ESD tolerant to 2kV on the control pins (high speed I/Os 400V)

Applications

- Typical applications include XFP transceivers for 10Gb/s LAN/MAN/WAN/SAN Ethernet, Fibre Channel and SONET data processing, switches, routers, electrical cross-connects and optical monitoring equipment.

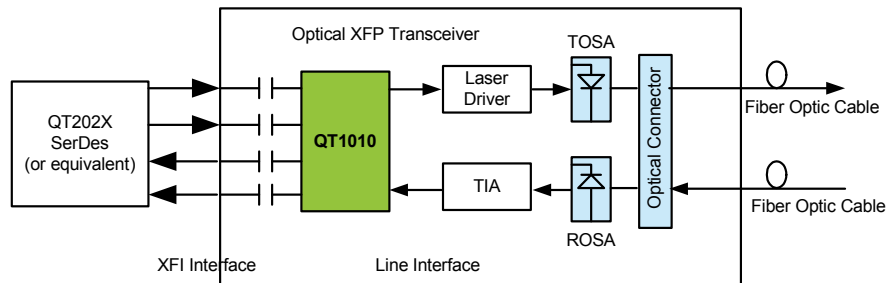
Description

The QT1010 is a fully integrated bidirectional clock and data recovery device for optical LAN/WAN/MAN/SAN Ethernet, Fibre Channel and SONET applications deploying XFP modules.

The QT1010 provides the interface between a 10Gb/s1 SerDes and the optical sub-assemblies in an XFP module.

In the transmit direction, the QT1010 compensates for loss and distortion caused by the electrical XFI interface from the host SerDes. In the more sensitive receive direction, the QT1010 performs clock and data recovery and regeneration of the signal from the receive optical subassembly.

The retimed signal is provided to the host SerDes.



System Block Diagram with the QT1010

QT1010



215 Moffett Park Drive
Sunnyvale, CA 94089
P 858 450 9333
F 858 450 9885
www.appliedmicro.com

For technical support inquiries, submit your product related questions to support@appliedmicro.com.

AppliedMicro reserves the right to make changes to its products, its data sheets, or related documentation, without notice and warrants its products solely pursuant to its terms and conditions of sale, only to substantially comply with the latest available data sheet. Please consult AppliedMicro's Term and Conditions of Sale for its warranties and other terms, conditions and limitations. AppliedMicro may discontinue any semiconductor product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information is current. AppliedMicro does not assume any liability arising out of the application or use of any product or circuit described herein, neither does it convey any license under its patent rights nor the rights of others. AppliedMicro reserves the right to ship devices of higher grade in place of those of lower grade.

APPLIEDMICRO SEMICONDUCTOR PRODUCTS ARE NOT DESIGNED, INTENDED, AUTHORIZED, OR WARRANTED TO BE SUITABLE FOR USE IN LIFE-SUPPORT APPLICATIONS, DEVICES OR SYSTEMS OR OTHER CRITICAL APPLICATIONS. AppliedMicro is a registered trademark of Applied Micro Circuits Corporation. Power and the Power Logo are registered trademarks of Power.org. All other trademarks are the property of their respective holders. Copyright © 2010 Applied Micro Circuits Corporation. All Rights Reserved.

AppliedMicro Confidential and Proprietary