Quake Technologies

THE HIGHLY INTEGRATED SINGLE-CHIP QT1010 LOWERS COST, REDUCES POWER AND IMPROVES RELIABILITY WHILE OFFERING UNPRECEDENTED 10 GB/S PERFORMANCE AT LOW POWER CONSUMPTION

ADVANCED
PRODUCT SHEET

QT1010

9.9-11.1 Gb/s XFP COMPATIBLE BI-DIRECTIONAL CDR FOR ETHERNET, FIBRE CHANNEL AND SONET APPLICATIONS

WHAT IT GIVES YOU:

A high level of integration and an array of well planned, high-performance, fully XFP compliant features facilitate the design of 10 Gb/s SONET, Ethernet and Fibre Channel systems.

WHAT IT DOES:

QT1010 integrates the receive and transmit CDR on a single chip. On the transmit direction, the QT1010 compensates for loss and distortion caused by the electrical interference to the device. In the receive direction, the QT1010 performs regeneration of the signal from the receive optical subassembly.

QT1010 exceeds SONET jitter tolerance and jitter generation requirements on the fiber side. Superior transmit and receive eye quality ensure best overall system performance.

Built-in receive equalization on the transmit side compensates for the channel losses and helps eliminate the deterministic jitter caused by ISI. Based on XFI channel model.

Low power consumption of QT1010 enables use with any class of XFP modules. Adjustable output voltage swing allows power savings for shorter PCB trace lengths. Powerdown feature for lower system power in stand-by mode.

Integrated test features enable quick evaluation and faster time to market. Two loopback modes are available to facilitate lab and system diagnostics.

SOME KEY FEATURES:

- Integrated transmit and receive CDR
- Operation from 9.9-11.1 Gb/s data rates
- Footprint and features optimized for XFP
- Integrated limiting amplifier (LA) on the receive side
- LOS indicator with programmable threshold on the receive side
- Built-in equalizer on the transmit input
- Adjustable output swing
- Low noise 10 GHz VCOs
- 50 Ohm per side input and output matching.
- Excellent S11 and S22 performance.
- Receive and transmit lock detection
- On-chip system and line side loopbacks
- Power down capability
- 7x7 mm BGA with 0.8 mm ball pitch

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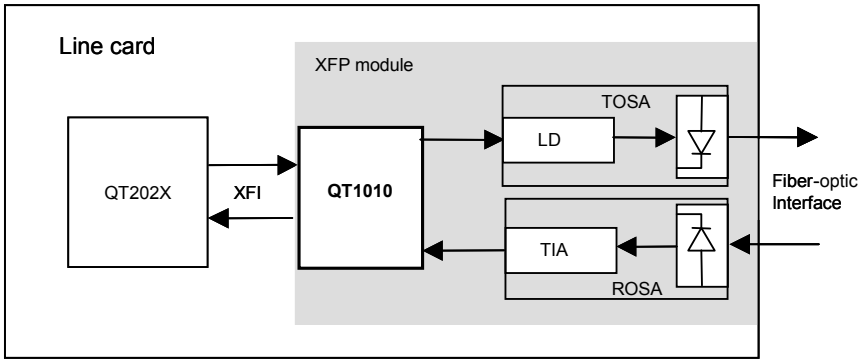
IDEAL FOR:

10 Gb/s SONET, Ethernet (IEEE 802.3ae) and Fibre Channel data processing. Backplane drivers, electrical cross-connects and optical monitoring equipment.

BLOCK DIAGRAM:



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