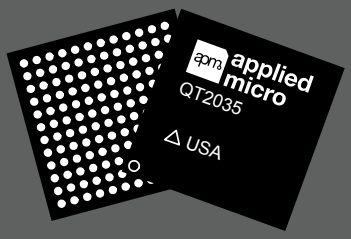
QT2035

Serial 10Gbps-to-XAUI Transceiver with Adaptive EDC

PRODUCT BRIEF



The QT2035PxKCE is a fully integrated 9.95-10.3125 Gbps transceiver with fully adaptive Electronic Dispersion Compensation (EDC) capabilities. The device provides a high performance interface between a MAC or switch device and XFP/SFP+/SFP modules.

The device is forward compatible with the Pemaquid 10G Framer/Mapper/PHY device. The QT2035PxKCE and the S19258/59 Pemaquid have the same mechanical footprint and ball map to aid in migration to the Pemaquid device.

Features

- 10Gbps LAN/WAN Operation
- Advanced EDC Engine with Auto Tap Weight Adjustment, Manual Mode, & Advanced Tracking
- 10G High-Speed Interface with Integrated RX AGC, Adjustable TX Amplitude with Pre-Emphasis, and I/O Polarity Swap
- XAUI Interface with Selectable Lane Ordering, Polarity Swap, Input Equalization, Output Pre-Emphasis, Amplitude Adjust
- Ethernet Clock recovery for Synchronous Ethernet applications (125MHz and 156.25MHz)
- Integrated Loopback and Line Timing Functionality
- Integrated BER Tester, and PRBS, Packet, and Programmable Pattern Generation and Checking
- Tri-State Push/Pull 25MHz MDIO Operation with Two Additional I2C Compatible Interfaces for EEPROM External Device Configuration and External Module Status/Control including NVR
- Compliant to Applicable IEEE & INCITS Specs
- 19mm x 19mm, 1mm Ball Pitch, BGA Package with RoHS Compliant Lead Free Option

SFP+ Specific Features

- SFI-XAUI Operation for SFP+ Limiting Module Applications

XFP Module Specific Features

- Low Power XFI-XAUI Operation
- WIS (10GBASE-W) SONET/SDH Support with Overhead DCC Channel Available
- Automatic Line Timing Capability for Synchronous Operation in SONET Networks

Description

In the receive direction the device uses a sophisticated EDC engine that continuously adapts itself to the channel characteristics providing an optimum level of performance regardless of environmental conditions.

In the transmit direction, the 10Gbps driver utilizes signal equalization to compensate for degradation due to copper traces and connectors in the signal path.

The QT2035PxKCE includes two standard two-wire interfaces (plus MDIO) for auto/manual initialization, firmware loading, NVR, & optical module status/control.

Applications

- Migration path for AppliedMicro's Pemaquid device.

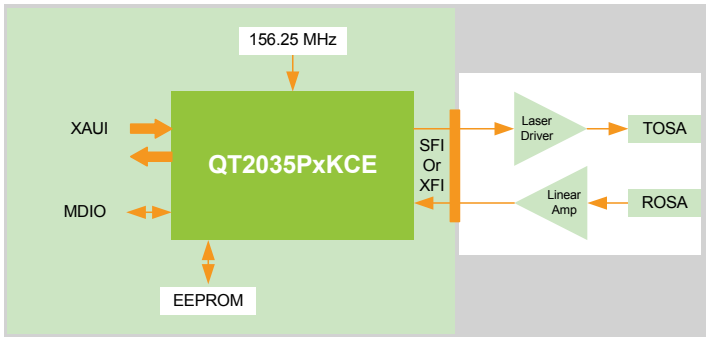
SFP+ Specific Applications:

- Hostboard Termination for SFP+ Modules including 10GBASE-SR & 10GBASE-LR

XFP Specific Applications:

- Hostboard Termination for XFP Modules including 10GBASE-R & 10GBASE-W Protocol

QT2035 System Block Diagram



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

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