PRELIMINARY

QFEXR-EVAL-KIT

Evaluation Kit for the Am79C871 Device

AMD

DISTINCTIVE KIT CHARACTERISTICS:

- Standalone 100BASE-T repeater evaluation board with QFEXr device
- Supports 12 100BASE-T ports
- LEDs provide Link and Partition status

- Demonstrates QFEXr design interface with external MLT-3 devices
- Various debugging features onboard

GENERAL DESCRIPTION

The QFEXr Evaluation Kit is an evaluation platform for the Am79C871 Quad Fast Ethernet Transceiver for 100BASE-X Repeaters (QFEXr). The evaluation board functions as a standalone 100BASE-T unmanaged repeater. Twelve 100BASE-T ports are provided.

The design demonstrates the Shared MII interface to the repeater device, as well as the interface to external MLT-3 devices. The repeater device offers a 12-port Shared MII interface, which reduces pin count over a standard MII port, but preserves complete IEEE802.3u functionality. Testpoints are available for probing the evaluation board with logic analyzers and oscilloscopes. The three QFEXr devices on the evaluation board interface to external MLT-3 devices. MLT-3 devices from two vendors are used to demonstrate the signal interface and layout when combined with the QFEXr. Complete schematics and layout information is included in the kit.

The QFEXr board provides LEDs to show LINK from the QFEXr devices and Partition Status from the repeater device. Jumpers provide access to options on the QFEXr devices.

The QFEXr board is powered by a DC power supply (not included).

QFEXR EVALUATION KIT CONTENTS

- Cover Letter
- 12 Port QFEXr Evaluation Board
- QFEXr Product Brief
- QFEXr Am79C871 Datasheet
- QFEXr Evaluation Board instructions
- 12-port QFEXr Evaluation Board Schematics, Layout and Parts List
- QFEXr Application Note, "Designing 100BASE-TX Systems with the QFEX Family"
- Presentation, "Designing with the AMD QFEX PHY Family"

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