

NetPHY-1LP-KT/M



Am79C874 Evaluation Kit using MII

DISTINCTIVE CHARACTERISTICS

- Based on the NetPHY™-1LP single port, low power, 10/100 Mbps Ethernet PHY
- Provides complete MII connector to RJ-45 connector functionality
- Provides jumpers to control test modes, PHY address, MII or 7-wire (GPSI) mode
- Board connects directly into MII test equipment
- LED indicates the following:
 - Link, RX Activity (in the RJ-45 connector)
 - Duplex, Speed/TX Activity (on the board)
- Single 1:1 ratio magnetics module
- Power supplied via MII connector

GENERAL DESCRIPTION

The NetPHY-1LP-KT/M evaluation kit has been developed as a tool for evaluating the performance of the NetPHY-1LP device. The kit also serves as a design reference tool. The evaluation board has followed design layout practices for optimum EMI performance. The kit schematics and layout information provide excellent guidance for integration of the NetPHY-1LP device into individual designs.

The evaluation board is configured for MII to RJ-45 10BASE-T/100BASE-TX twisted pair cable operation. It does not support fiber optic operation. A jumper allows use of the 7-wire General Purpose Serial Interface (GPSI) via the MII connector for 10BASE-T operation. The evaluation board obtains 5-V power from the MII connector. The 5-V power is converted to 3.3-V by an on-board voltage regulator. The regulator can be bypassed to allow external 3.3-V voltage tolerance testing. Five jumpers allow selection of one of 32 different PHY addresses. The reset button is included as a

convenient method of providing the hardware reset function.

The NetPHY-1LP device provides excellent LED flexibility. The evaluation board has been designed to demonstrate one set of capabilities. The two LEDs on the RJ-45 connector can provide steady or blinking feedback to the user. The two LEDs directly on the evaluation board can provide steady, blinking, or bi-color feedback to the user. This flexibility gives the designer multiple options for custom LED "look and feel" front panels.

EVALUATION KIT CONTENTS

- One 7 cm x 11 cm (2.5 in. x 4 in.) NetPHY-1LP evaluation board
- NetPHY-1LP preliminary data sheet (PID #22235B)
- Evaluation board user instructions
- Board schematics, Gerber, BOM in hard copy

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