

EVAL-FT1M2HNR and FR1M2HNR



Fast Ethernet RedLink® Evaluation Kit User Guide

OVERVIEW

Eval-FT1M2HNR and FR1M2HNR evaluation kit enables evaluation of the Firecomms Fast Ethernet digital RedLink® transmitter and receiver pair for Plastic Optic Fiber (POF). The kit includes a digital transmitter and digital receiver pre-mounted onto a simple PCB that allows easy application of DC power via standard 2 mm diameter DC jacks. Data inputs (TD+/-) and data outputs (RD+/-) are connected via standard screw terminal SMA connectors. RedLink® friction plugs with 30 cm of simplex POF cable is also included for test.

For particular POF lengths and assemblies please contact Firecomms Applications support directly.

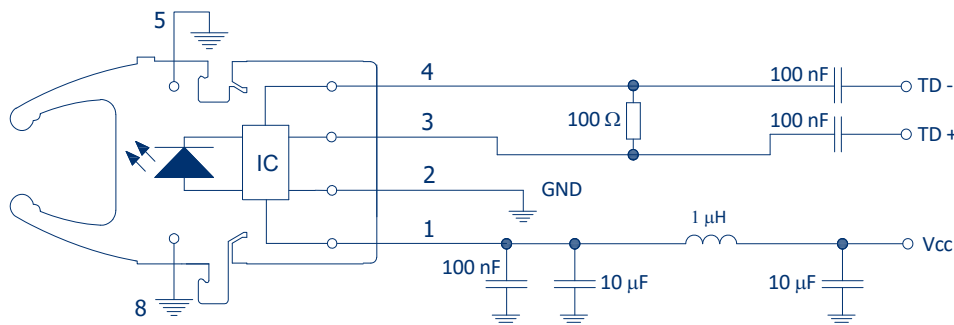
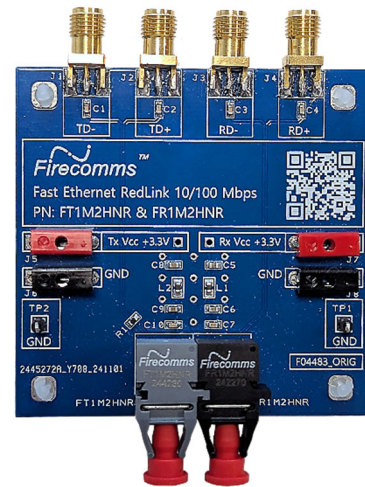


Figure 1: FT1M2HNR Transmitter Application Circuit

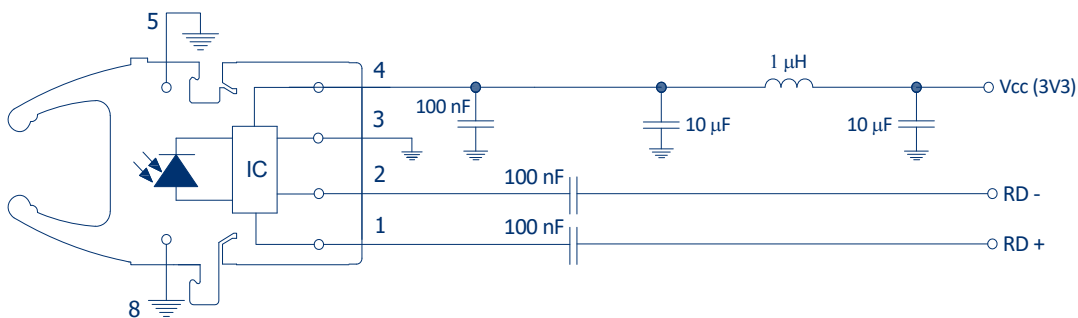


Figure 2: FR1M2HNR Receiver Application Circuit

EVALUATION KIT CONTENTS

The Evaluation Kit contains the following:

1. Evaluation PCB
2. FT1M2HNR and FR1M2HNR mounted onto the evaluation PCB
3. 30 cm RedLink® simplex POF (0.5 NA, SI-POF) cable with friction plugs (grey and blue crimped plugs)
4. FT1M2HNR and FR1M2HNR Datasheets

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INITIAL SETUP

1. Connect GND of a DC power supply to the ground points of the PCB (black terminals).
2. Connect 3.3 V to each of the Tx and Rx VCC jacks (red terminals).
3. To measure common GND, connect a probe to the test points TP1 (Tx) and TP2 (Rx).
4. Connect suitable pattern generator differential data signals via SMA cables to the TD +/- data pins.
5. Connect the RD +/- data pins to a suitable high-speed oscilloscope using 50 Ω termination and high-speed coax, SMA terminated cables.
6. For a loop-back cable test, insert each end of the RedLink® simplex friction plug POF cable into both the transmitter and receiver.

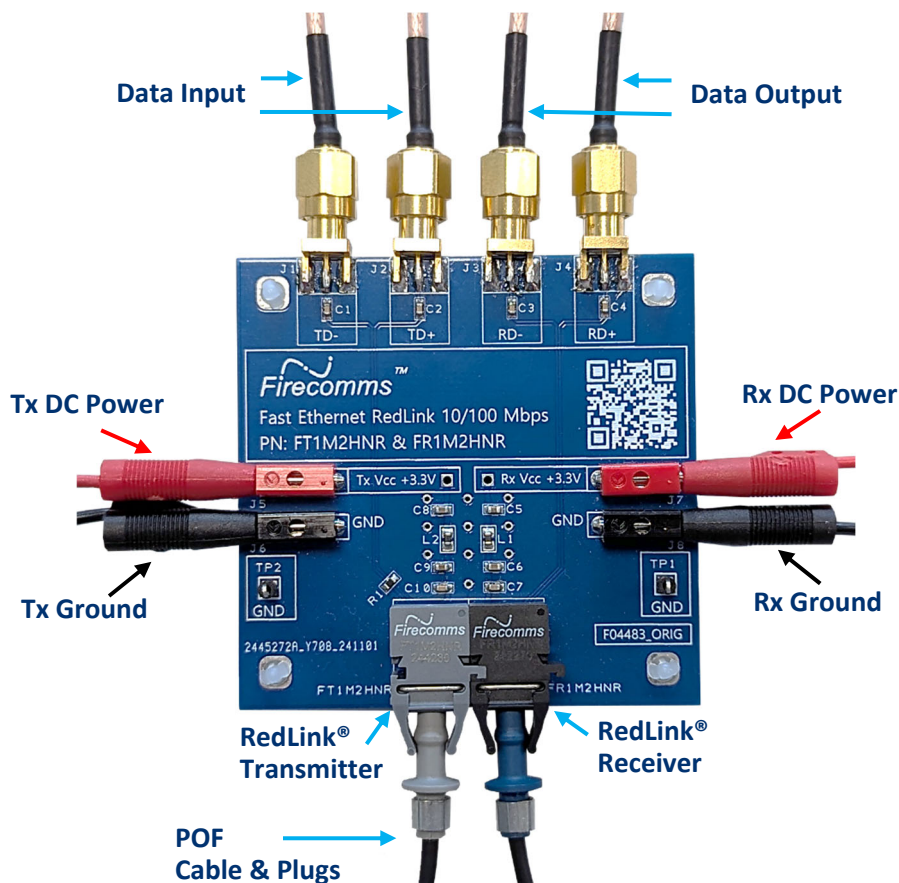


Figure 3: Setup of the FT1M2HNR and FR1M2HNR Evaluation PCB

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