EVAL-FB2M5PRR

DC-250 MBd RedLink® Evaluation Kit User Guide



OVERVIEW

Eval-FB2M5PRR evaluation kit enables evaluation of the Firecomms DC-250 MBd non-inverting (Rx) RedLink® transceiver for Plastic Optic Fiber (POF). The kit includes a single RedLink® transceiver 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. A RedLink® transceiver plug with 1m of simplex POF cable in a loop back is also included.

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



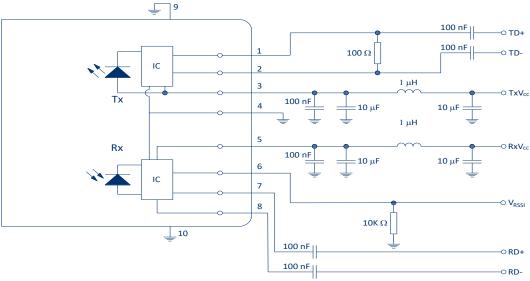


FIGURE 1
Recommended circuit layout for the DC-250 MBd RedLink® transceiver

EVALUATION KIT CONTENTS

The Evaluation Kit contains the following:

- 1. Evaluation PCB
- 2. FB2M5PRR mounted onto the evaluation PCB
- 3. RedLink® transceiver plug FP-00C-5D0 with looped back POF cable (1 m, 0.5 NA, 2.2 mm jacket simplex POF)
- 4. FB2M5PRR Datasheet

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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. To monitor the RSSI, connect an oscilloscope probe 1 M Ω input to the RSSI test point, TP2.
- 5. Connect suitable pattern generator differential data signals via SMA cables to the TD +/- data pins.
- 6. Connect the RD +/- data pins to a suitable high-speed oscilloscope using 50 Ω termination and high-speed coax, SMA terminated cables.
- 7. For a loop-back cable test, insert the RedLink® transceiver plug with 1m of looped back simplex POF cable into the RedLink® transceiver.

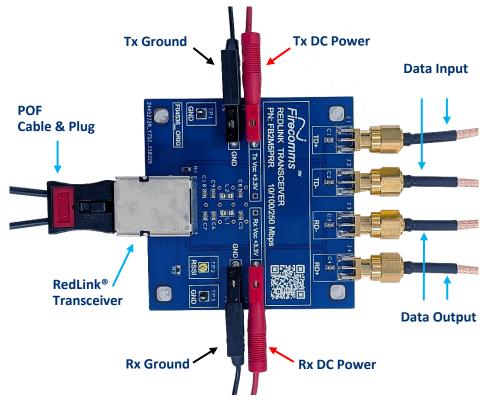


FIGURE 2 Setup of the FB2M5PRR Evaluation PCB

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