EVAL-FB2M5PVR

DC-250 MBd RedLink®
Evaluation Kit User Guide

OVERVIEW

EVAL-FB2M5PVR 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 Application Support directly.

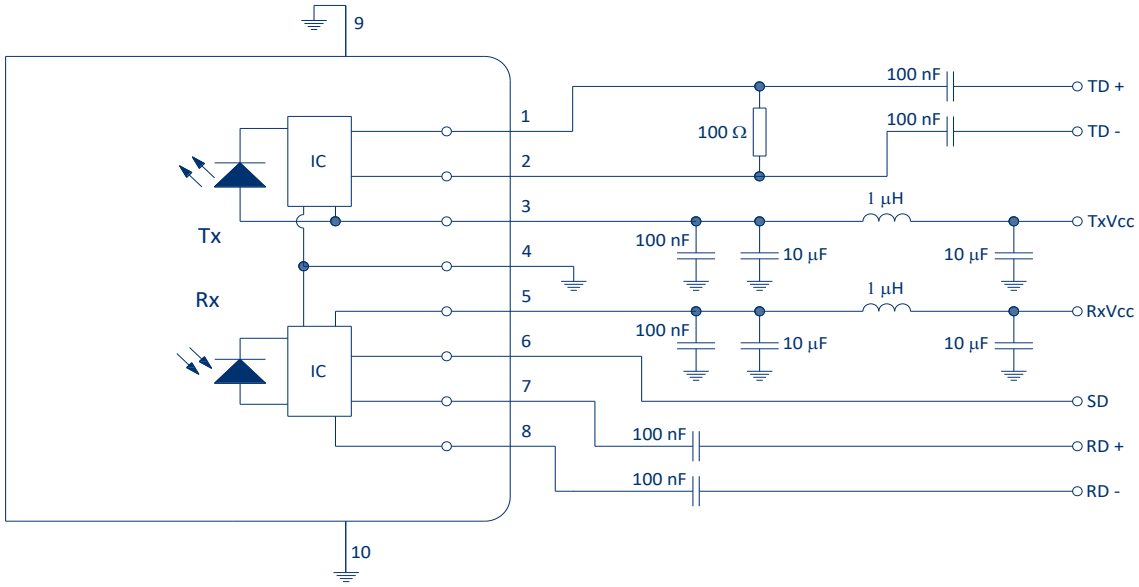

FIGURE 1
Recommended circuit layout for the DC-250 MBd RedLink® transceiver

EVALUATION KIT CONTENTS

The Evaluation Kit contains the following:

1. Evaluation PCB
2. FB2M5PVR 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. FB2M5PVR 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 TP3 (Rx).
4. To monitor the signal detect function, connect an oscilloscope probe 1 MΩ input to the SD 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.

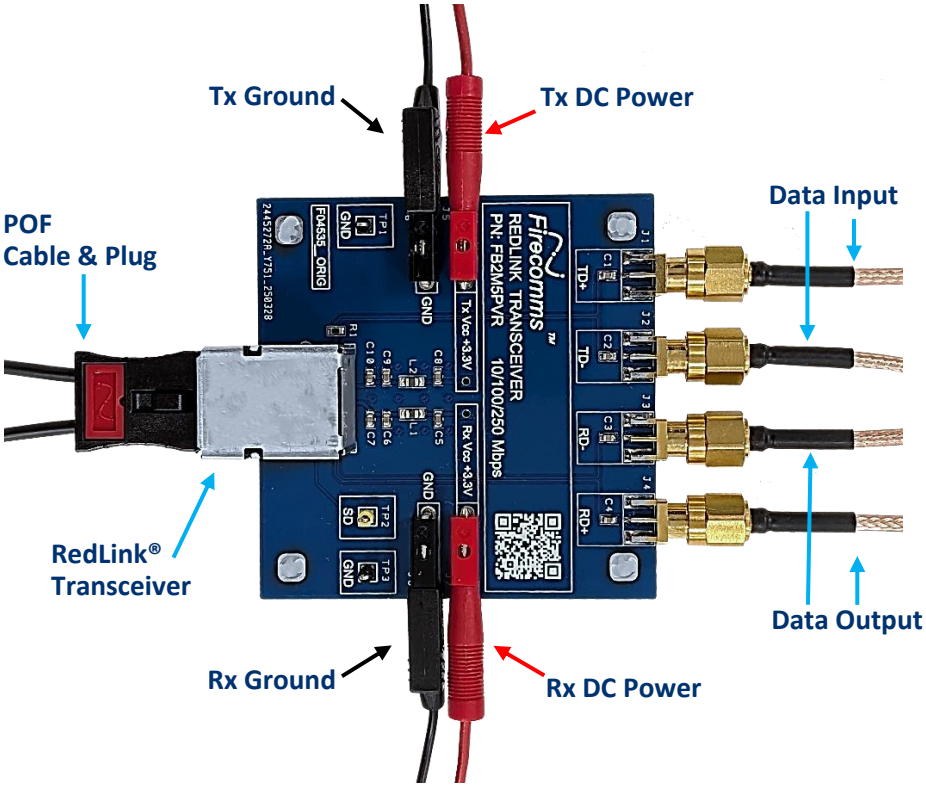

FIGURE 2
Setup of the FB2M5PVR Evaluation PCB