

# Eval-FB2M5LVR

## Ethernet LC Evaluation Kit

### User Guide



#### OVERVIEW

The Eval-FB2M5LVR evaluation kit enables evaluation of the Firecomms LC transceiver for plastic optic fibre (POF) and large core glass fibre (200, 400 um PCS). The kit includes a single LC 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 single loop-back POF cable with LC plug is also included.

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

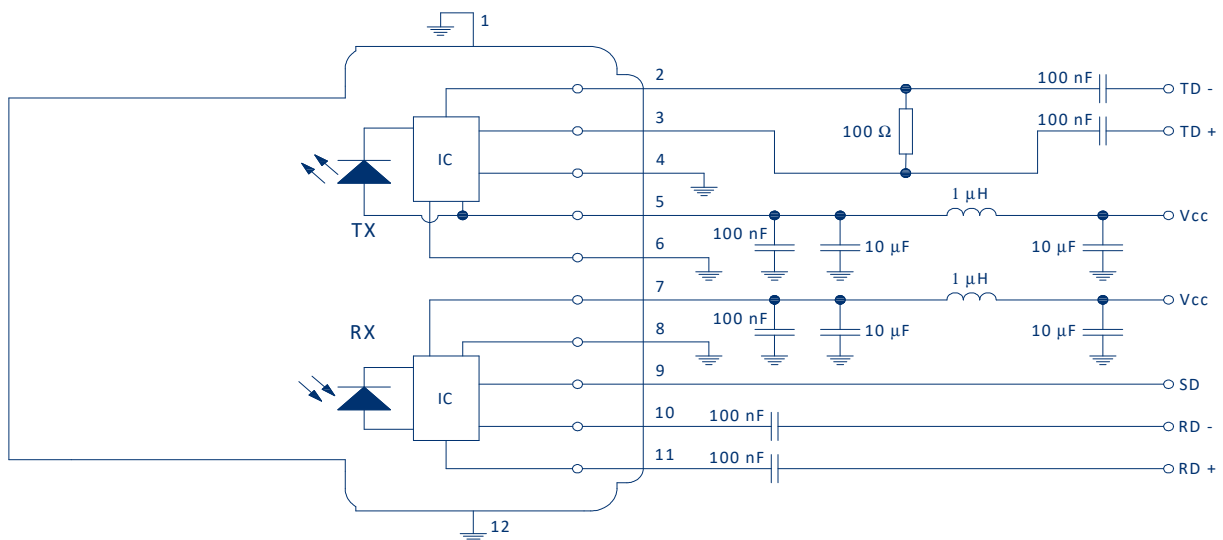


FIGURE 1  
Recommended circuit layout for the LC transceiver

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#### EVALUATION KIT CONTENTS

The Evaluation Kit contains the following:

1. Evaluation PCB
2. FB2M5LVR mounted onto the evaluation PCB
3. POF cable with loop back LC plug (1 m, 0.5 NA, 2.2 mm jacket simplex POF)
4. FB2M5LVR Datasheet

#### 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 monitor the signal detect function, connect an oscilloscope probe (1 M $\Omega$ ) to the SD test point.
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  $\Omega$  termination and high-speed coax, SMA terminated cables.
6. For a loop-back cable test, connect the provided LC loop-back cable assembly into the LC connector. This connects the Tx back to the Rx over 1m of Step-Index POF.

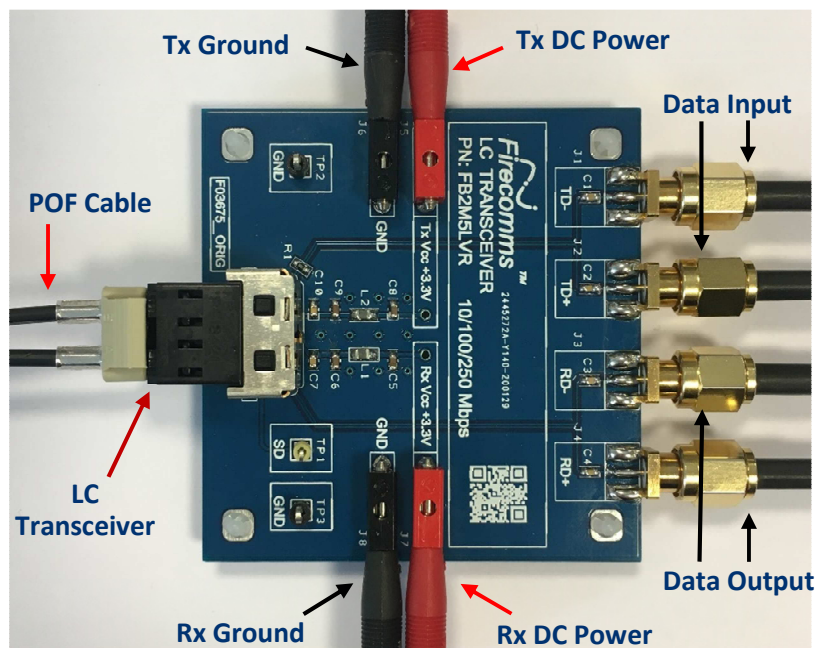


FIGURE 2  
Setup of the FB2M5LVR Evaluation PCB