ML4066-SFP
Technical Reference

SFP-SFP Diagnostic Adapter
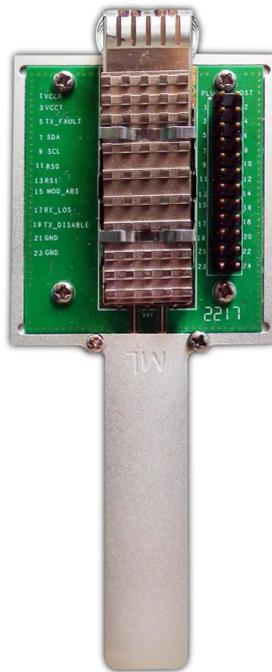
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1   Overview

The **ML4066-SFP** is a general purpose diagnostic adapter, which allows user to access all SFP controls, alarms and I2C signals, in addition to power nets, for testing purpose. A pin header connector, that breaks the connection between the "Plug connector" and "Host connector", is used to access SFP pins individually, or when using jumpers, allows to connect plug connector to host connector pins, in addition to use this pin header to connect I2C analyzer.

1.1   ML4066-SFP Adapter | Key Features

- All high speed signals are connected from the SFP Plug to the front SFP host connector with superior SI traces
- Low insertion loss PCB traces
- Uses RO4350 PCB material
- Power pins are accessible via pin headers and can be jumped to connect them to the plugged SFP transceiver
- All low speed management signals are accessible via pin headers, and can be jumped to connect them to the plugged SFP transceiver
- I2C SCL and SDA signals accessible via pin headers or can be jumped to connect them to the plugged SFP transceiver
- Ability to drive I2C from external pin headers, or connect I2C packet analyzer
- Ability to drive 3.3 V from external source for power supply margining
- Ability to break 3.3 V power from Host to module allowing voltage and current measurement
- Interface to connect SFF Analyzer board

2   ML4066-SFP Pin Allocation

2.1   ML4066-SFP RevA
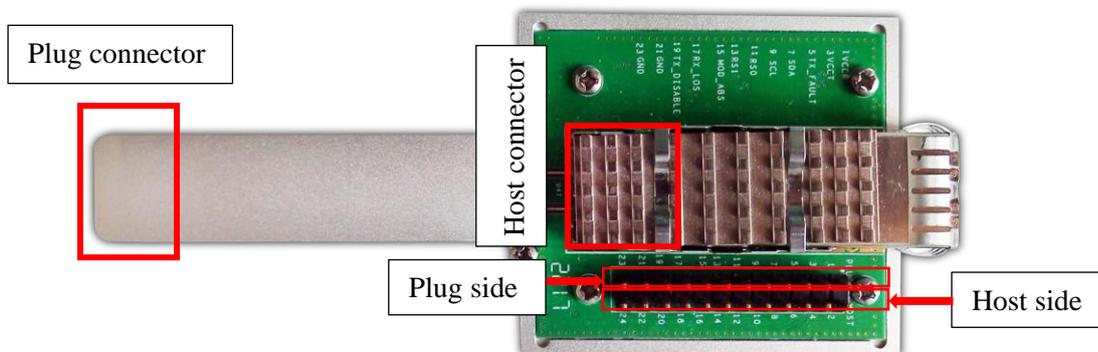
Pin Number (Host Side)	Host Side	Plug Side	Pin Number (Plug Side)
2	VCCR	VCCR	1
4	VCCT	VCCT	3
6	TX-FAULT	TX-FAULT	5
8	SDA	SDA	7
10	SCL	SCL	9
12	RS0	RS0	11
14	RS1	RS1	13
16	MOD_ABS	MOD_ABS	15
18	RX_LOS	RX_LOS	17
20	TX_DISABLE	TX_DISABLE	19
22	GND	GND	21
24	GND	GND	23

2.2   Pins Diagram

The adapter allows the user to make use of the pins to achieve a variety of different measurements as listed below:

- User can probe or drive the Host side
- User can probe or drive the Plug side
- User can place jumpers to connect the Plug side to the Host side.

To benefit from monitoring and diagnostic capabilities available in the GUI, plug the pin header into the ML4066-ANA-SFP Analyzer Board.
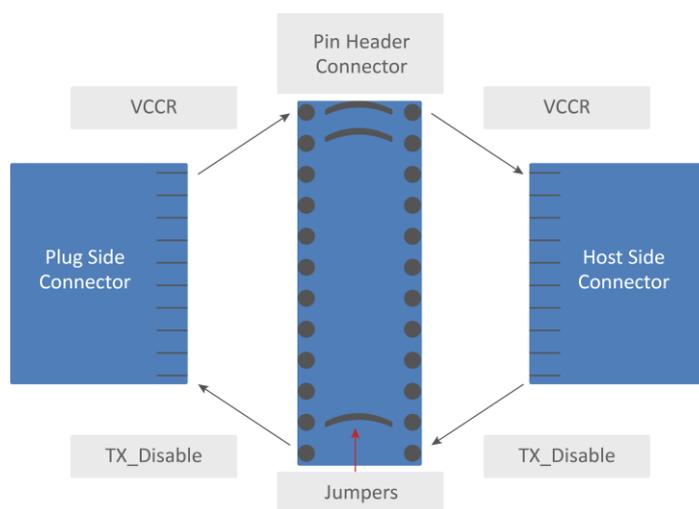
Revision History

Revision number	Date	Description
1.1	2/1/21	▪ Preliminary
1.11	10/14/21	▪ Format/ language updates