multiLane

ML4066-OSFP

Technical Reference

OSFP-OSFP Diagnostic Adapter

Innovation for the next generation

Table of Contents

1 Overview

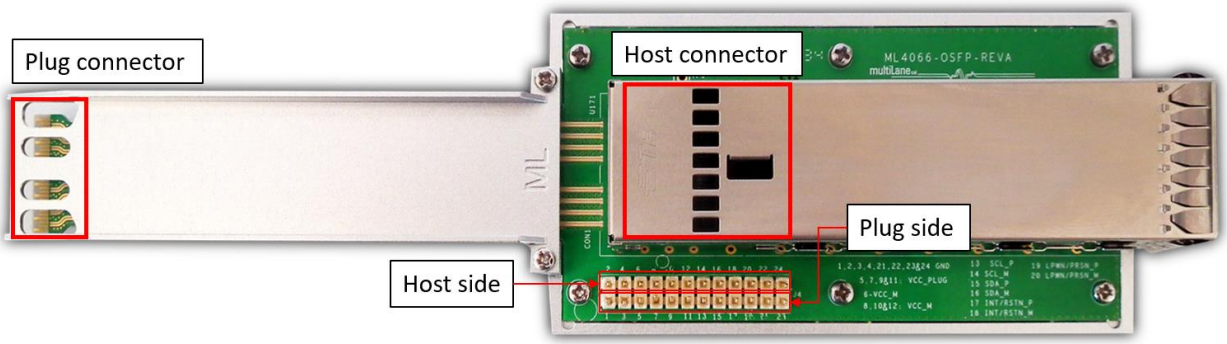
The **ML4066-OSFP** is a general purpose diagnostic adapter, which allows user to access all OSFP controls, alarms and I2C signals, in addition to power nets, for testing purpose. A pin header connector, that breaks the connection between the “Plug connector” and “Host connector”, is used to access OSPF 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-OSFP Adapter | Key Features

- All high speed signals are connected from the OSFP Plug to the front OSFP host connector with superior SI traces
- Low insertion loss PCB traces
- Power pins are accessible via pin headers and can be jumped to connect them to the plugged OSFP transceiver
- All low speed management signals are accessible via pin headers, and can be jumped to connect them to the plugged OSFP transceiver
- I2C SCL and SDA signals accessible via pin headers or can be jumped to connect them to the plugged OSFP 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-OSFP Pin Allocation

2.1 ML4066-OSFP RevA1



The pin allocation of the **ML4066-OSFP** pin header is summarized in the table below:

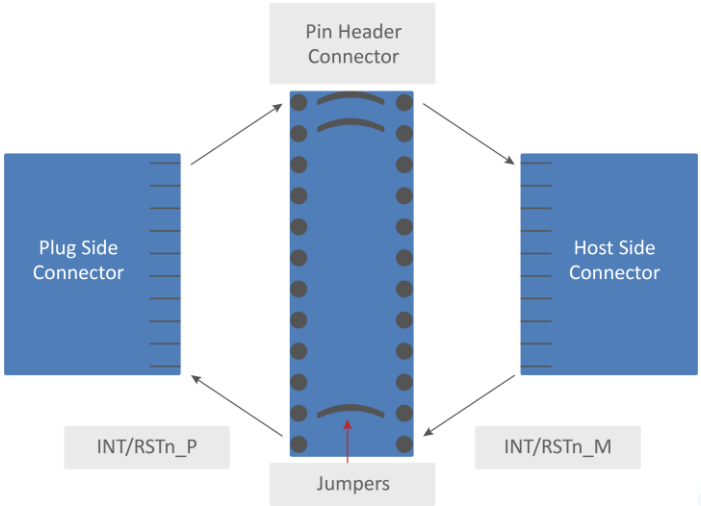
PIN Number (Host Side)	Host Side (Transceiver connector)	Plug Side	PIN Number (Plug Side)
2	GND	GND	**1**
4	GND	GND	**3**
6	VCC_M	VCC_PLUG	**5**
8	VCC_M	VCC_PLUG	**7**
10	VCC_M	VCC_PLUG	**9**
12	VCC_M	VCC_PLUG	**11**
14	SCL_M	SCL_P	**13**
16	SDA_M	SDA_P	**15**
18	INT/RSTn_M	INT/RSTn_P	**17**
20	LPWn/PRSn_M	LPWn/PRSn_P	**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-OSFP Analyzer Board.



Revision History

Revision number	Date	Description
0.1	1/29/2021	▪ Preliminary
0.11	10/14/21	▪ Format/language updates