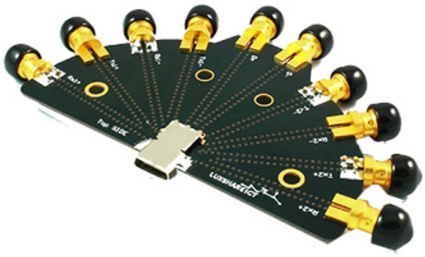


LUXSHARE-ICT mDP 2.1 Test Fixture (PCB Type) User Manual

mDP 2.1 Test Fixture (PCB Type)
User Manual

Contents

mDP 2.1 Test Fixture (PCB Type)

Product Name	Version	Date	Comments
mDP 2.1 Test Fixture Series (PCB Type)	1	Aug.16,2022	Update

Introduction

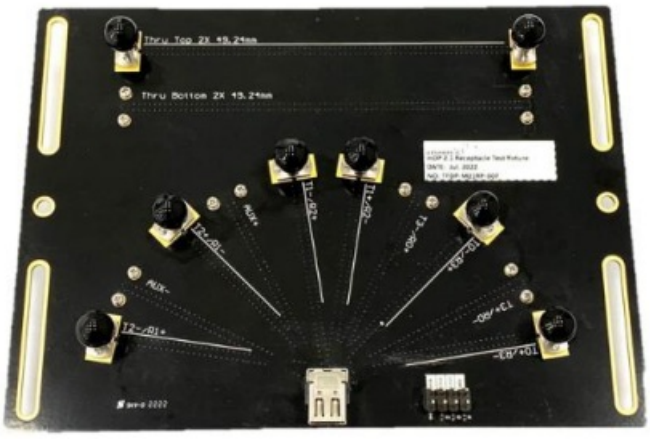
This document introduces the product and electrical specifications of the mDP **2.1 Test Fixture (PCB Type).**

Objectives

This specification provides the characteristics of mDP 2.1 Test Fixture (PCB Type) and it is used to test mDP 2.1 cable.

Product Description

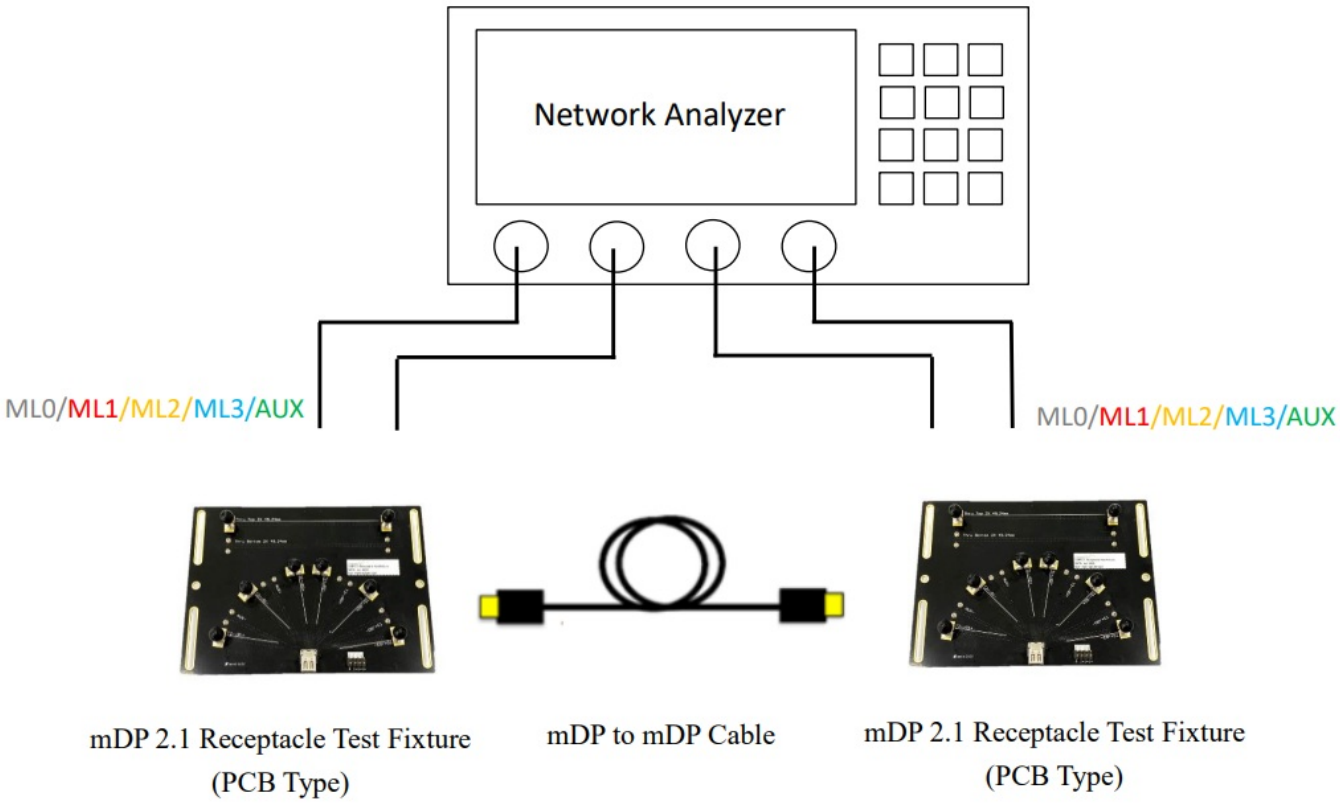
3-1. mDP 2.1 Test Fixture (PCB Type)
mDP 2.1 Test Fixture (PCB Type) is used for mDP cable compliance test.

Figure 3-1. TFDP-M21RP mDP 2.1 Receptacle Test Fixture (PCB Type)	Figure 3-2. TFDP-M21PP mDP2.1 Plug Test
	

User Models

Test setup includes but not limited to the following examples:

4-1. Cable Test Setup



mDP 2.1 Receptacle Test Fixture (PCB Type)

mDP to mDP Cable

mDP 2.1 Receptacle Test Fixture (PCB Type)

mDP 2.1 Test Fixture (PCB Type) Electrical Specification

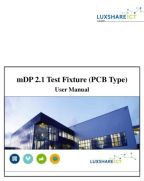
Test Item	Requirements	Description	Test Equipment	Result
Insertion Loss Fit at Nyquist Frequencies	≥ –1dB @ 0.1 GHz ≥ –4dB @ 2.7GHz ≥ –5.5dB @ 5.0GHz ≥ –6.5dB @ 6.75GHz ≥ –8.5B @ 10GHz ≥ –13B @ 15GHz	Frequency range 20MHz 20GHz IF Bandwidth 1kHz Sweep points 2000	Keysight (E5071C-TDR) 300KHz~20GHz ENA Network Analyzer Keysight (N4433A) 200KHz~20GHz Electronic Calibration Module	≥ –0.25dB @ 0.1 GHz ≥ –1.98dB @ 2.7GHz ≥ –2.93dB @ 5.0GHz ≥ –3.55dB @ 6.75 GHz ≥ –4.70dB @ 10GHz ≥ –6.84dB @ 15GHz
Integrated Return Loss	IRL PWL limit = -15dB @ ILfit -4dB IRL PWL limit ≤ -15dB @ ILfit -5dB IRL PWL limit ≤ -15dB @ ILfit -8.5dB			-16.33db
Integrated Multi-reflection	IMR5 0.0579 xILfitAtNq2 +1.64 x ILFixAthlq-23.23			-35.85db
Differential to Common mode Conversion	≤ -17db from 100 MHz to 15 GHz			-35.34db
Integrated Crosstalk – DP [Normative]	IXT_DP PWL limit = -34dB @ ILfit -4dB IXT_DP PWL limit ≤ -34dB @ ILfit -5dB IXT_DP PWL limit ≤ -36dB @ ILfit -8.5dB			-51.76db
Integrated Crosstalk between DP Lanes	IFEXT ≤ -43 dB (up to 10GHz)			-57.29db
Intra-Pair Skew	Intra [Normative] <= 10ps	25ps (20%-80%)		0.3ps
Differential Impedance	Fixture 100±5Ω Connector 85±10Ω	25ps (20% – 80%)		Fixture 100±5Ω Connector 85±10Ω

Reference DP Specification

1. Keysight Method of Implementation (MOI) for DisplayPory(DP) Version2.1 Passive DP80/DP40 Cable Compliance Test
2. VESA DisplayPort (DP) Standard Version 2.1 Enh DP Additions Section 4.1 Jun 2022 R10
3. VESA DisplayPort (DP) Standard Version 2.1 Enh DP Additions Section 4.2 Jun 2022 R9

LUXSHARE-ICT Co., Ltd
mDP 2.1 (PCB Type) Test Fixture

Documents / Resources

	LUXSHARE-ICT mDP 2.1 Test Fixture (PCB Type) [pdf] User Manual mDP 2.1 Test Fixture PCB Type, mDP 2.1, Test Fixture PCB Type, Fixture PCB Type

References

- DP 1.4 Passive Receptacle Test Fixture_Test Fixture_ _ _ _ _ -