RFI System Level Test Fixture

(Radio Frequency Interference)

DATASHEET

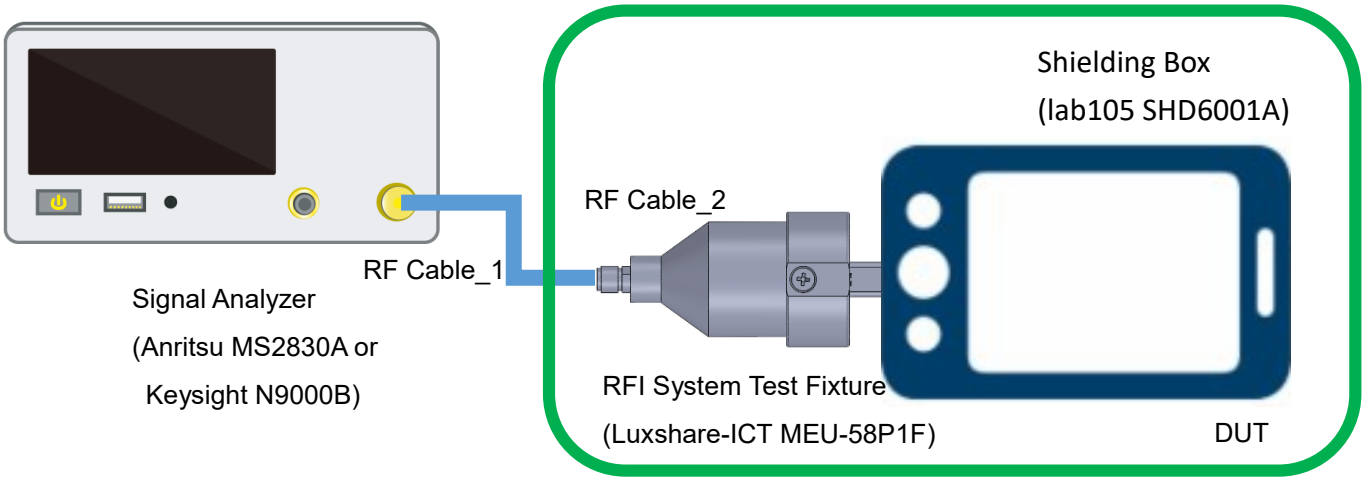
Introduction

- USB 3.2 signaling can cause radio frequency interference (RFI), which degrades the performance of wireless system nearby, impacting total user-experience. For example, it degrades the signal-to-noise ratio at the radio receiver, making negative impact on wireless communication range, data throughput, or command receiving.
- Excessive emissions from USB Type-C may also put risks when you go through EMC certification test for your products.
- All Type C connector(s) on host, hub or dual-role device systems shall pass the system level RFI test for compliance. RFI compliance is not a component level requirement.
- This test is only applicable to systems with Type C connector and support data speeds 5Gbps and above:
  - USB 3.2 Hosts End Product (This includes embedded hosts)
  - USB 3.2 Hubs End Product
  - DRD

Key Features

- Save measured time and measured cost
- Fast measured solution
- USB-IF compliance test item
- Remote software
- Easy setup measured solution
- Match Keysight/Anritsu/R&S instruction

Setup



RF Cable_1/RF Cable_2
(MWX121-01000DMSDMS)
(MWX121-00500DMSDMS)

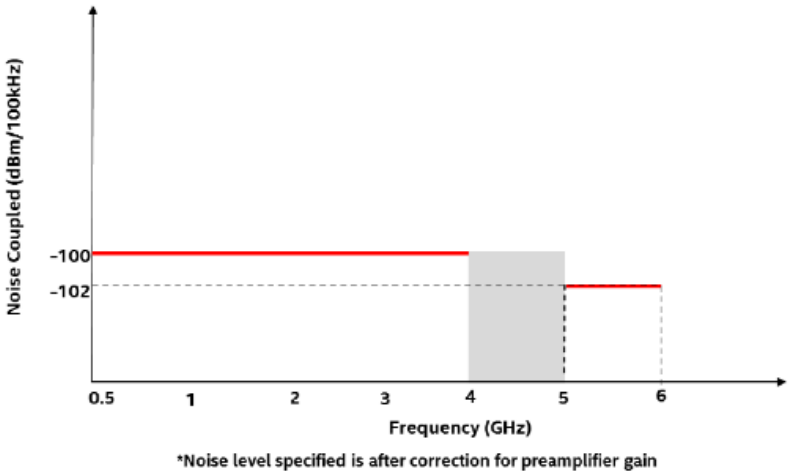
Test Equipment List

Equipment	Key SPEC.	Brand	P/N	Q'ty
USB-IF standard test fixture	Terminated Test : ≤ -105dBm @500 MHz ~ 4 GHz, 5~6GHz	Luxshare-ICT	MEU-58P1F	1
Signals Analyzer	Frequency Range: 500MHz ~ 6GHz Pre-amp function	Anritsu/Keysight/R&S	MS2830A/N9000B CXA/FPL1007	1
Shielding Box	Isolation > 90 dB, @500MHz ~ 6GHz	Lab105	SHD6001	1
RF Cable_1	Frequency Range: 500MHz to 6GHz Connector: SMA (M to M, 1M)	Junkosha	MWX121-01000DMSDMS	1
RF Cable_2	Frequency Range: 500MHz to 6GHz Connector: SMA (M to M, 0.5M)	Junkosha	MWX121-00500DMSDMS	1
Adapter	N(M) – SMA(F)	Keysight	N9311X-545	1
Test table	DUT size (max.): 380mm(W) x 460mm(L)	Luxshare-ICT	MEU-39P1F	1
Torque Wrench	5 in.lbs	Luxshare-ICT	NEW-40A11	1

USB-IF Compliance RFI system level test

The compliance criteria for the Type C connector are shown below

- 500MHz to 4GHz @-100 dBm
- 5GHz to 6GHz @-102 dBm



Revision History

Revision	Date	Description
1.0	2020.11.17.	• Release Version
1.0a	2020.12.02	• Correcting Vendor Information
1.2	2021.05.14	• Add R&S equipment • Remove require/optional column

Contact Information

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