Datasheet of LT-100R-20G-5P
(100 Ohms Raw Cable Test Fixture Set)

Version 1.1

Introduction:

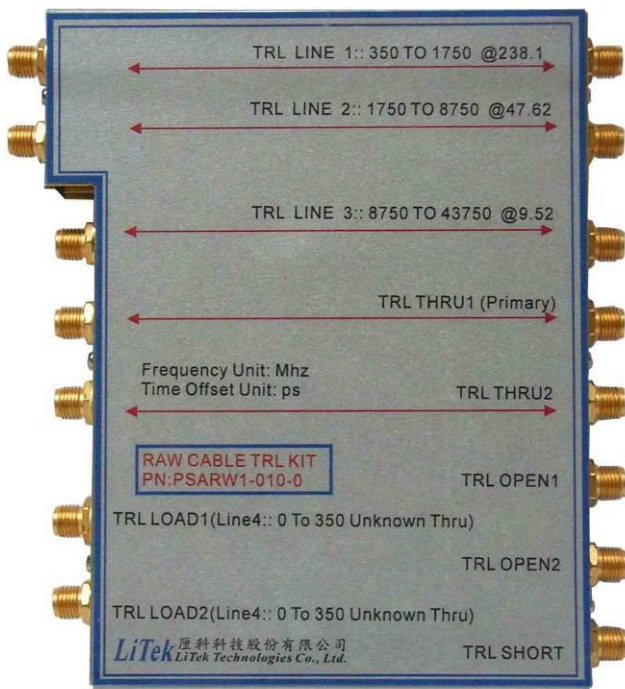**Fig 1: LT-100R-20G-5P Raw Cable Test Fixture Set**

Fig 2: LT-100R-20G-TRL (20G Raw Cable TRL Kit)

Most of the interfaces are designed by differential 100 ohms system, just like SATA, SAS, Lan, Infiniband, DVI, HDMI, SFP.. etc. The bandwidth of these interfaces is wide up to 20GHz or more. In this way, a good test fixture (Jig) for testing the raw cable with multi-AWG range becomes very important.

S-Parameter Measurements:

For S-Parameter measurements, one can do the Full 4-Port Calibration in the end of coaxial cables. Get the touch stone files of the LT-100R-20G-TRL. De-embed it into the calibration. Then the S-Parameters can be performed.
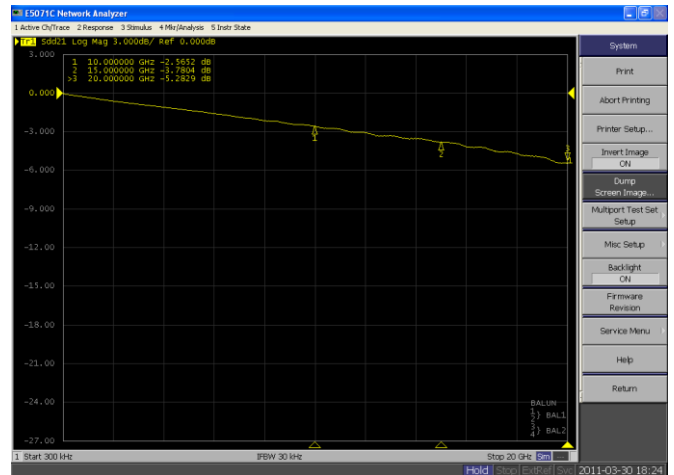

Fig 3:The SDD21 of Calibration Kit

TDR Measurements:

For TDR Parameters, LT-100R-20G-TRLcan be used to remove the electrical length of the fixture set. Clip the raw cable then pressed on the fixture set, one can easily to get the TDR parameters.

Measurement implementation:

There is a twin groove for raw cable pressed. User just need put the conductors of pair contacted with the groove. Put the Yellow-Kit down and press the conductors for the measurements.
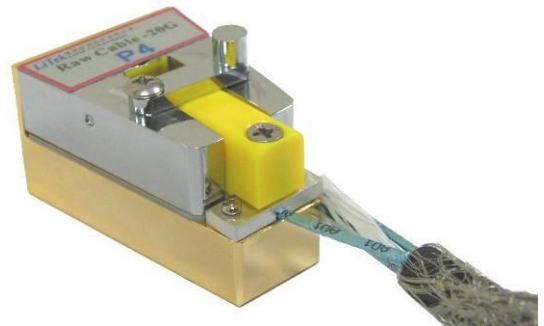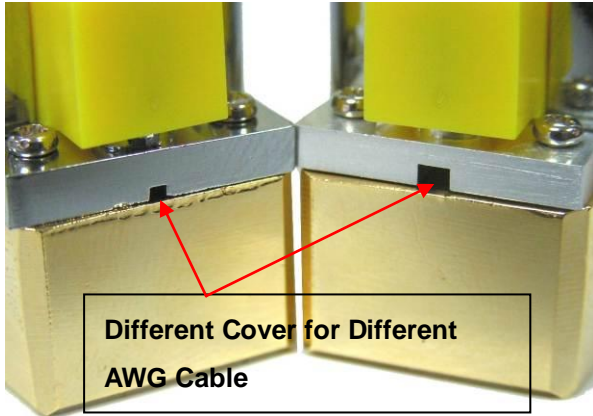

Fig 4: LT-100R-20G with DUT pressed.

There are different covers for different AWG Raw Cable to press the pair shield. That can be used to reduce the mismatch of the pair without shield area.

Fig 5: Different cover for Different AWG Cable

Features:

>>Impedance control: Differential 100 +/- 2.5 Ohms

>>Support both Un-Shielded Twist Pair (UTP) and Shielded Twist Pair (STP) cables.

>>Intra Pair Skew: Less than 2ps for each pair.

>>Inter Pair Skew: Less than 5ps for all pairs.

>>Multi-AWG support: 24AWG ~ 40AWG.

>>Low Loss (2X Kit): Less than -6dB @20GHz. (It means single pair loss will be less than -3dB@ 20GHz.)

>>Used for most of interfaces cable: ThunderBolt, Lan, HDMI, DVI, SATA, USB3.0, DisplayPort, SFP, PCI-Express Cable, …etc.

Standard Package:

Product Name	Description	Q'ty
LT-100R-20G-5P	5 pairs of LT-100R-20G fixture in a set.	2 Set
LT-100R-20G-TRL	20G TRL Kit	1 EA

Option:

LT-100R-20G-TRL Kit is an option item for TRL Calibraiton. In this kit, there are Open, Short, Load, Thru and Multi Line calibration traces.

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