Introduction:



Fig1: PCB Impedance measurement with pitch 1.0mm test probe.

Impedance and Loss measurements on PCB become more and more important when the data rates increased. To get the pure loss of the PCB traces based on the assigned length, especially in the inner layer is very difficult because How to remove the via hole and probe effects is an issue. However, if the probe itself can't be maintained with a linear behavior, anything is invalid to discuss.

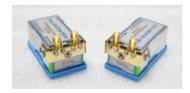
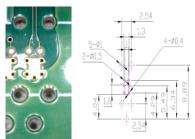


Fig2: Probe on the holder

Litek's PCB test probe <u>PRB-100-P10-2BM</u> is a selection for the user to measure the PCB Impedance and Loss. We defined the guide pin and the contact pads for the user to design the PCB traces. A preferred assistant structure is defined that the probe can be easily putted on the right position.



LiTek's TpNA for PCB Measurement Software can be used to help the user finish all steps of PCB Impedance and Insertion Loss measurement.



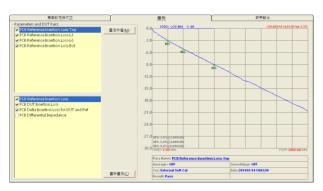




Fig3: Measurement result of Impedance and Insertion Loss up to 20GHz.

◆Features:

- 1. Good Impedance match: 100Ω +/- 3Ω .
- 2. Low Intra Pair Skew: +/- 2ps.
- Fast Rise Time: Less than 50 ps.
- 4. Low Loss design: 1.5 dB @20GHz reference.
- 5. 2 SMA or 3.5mm connectors.
- Option: TRL Kit is available to remove the effect of Probe

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