

Keysight N1021B 18 GHz Differential TDR Probe Kit

Data Sheet

Get connectivity to printed circuit boards
and other devices without connectors



- Shorten design cycles: Characterize differential impedances including return and insertion losses
- Get better insights: display results in the time domain (impedance profiles) or frequency-domain (SDD11, SDD21)
- Control processes: Maintain consistent quality in printed circuit board and passive component manufacturing

The Keysight Technologies, Inc. N1021B TDR 18 GHz differential TDR probe kit connects printed circuit boards and other devices without connectors to the 54754A differential TDR/TDT module in the 86100C or 86100D Infiniium DCA wideband oscilloscope mainframes. In conjunction with these hardware components, engineers can use the optional 86100C/D-202 enhanced impedance and S-parameter software to accurately characterize differential impedances in the time- and frequency domains (for example, reflections and impedances versus time or distance, or magnitude/phase/group delay of S-parameters like SDD11/SDD21).

Superior probe usability:

- Differential probe body. The tips move independently in order to make good electrical contacts even if the probe is not held perfectly perpendicular.



- A light, ergonomic design combined with flexible cables feels comfortable even when used extensively.
- The slim body and the extended tips provide good visibility of the target.



- Hardened tips ensure many touchdowns. Their small diameter and chamfered design make good contact even on small pads or traces.
- A thumb wheel allows pitch adjustments with just one hand.

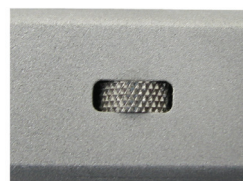
Key characteristics/features:

- Bandwidth 18 GHz
- 100 Ohm nominal differential impedance
- Variable tip spacing: 0.5mm-2.54mm SMA(F) connector interface
- Spring loaded probe tips with independent Z-axis movement

N1021B kit content:

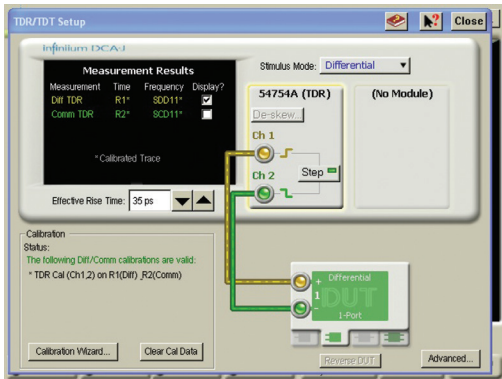
- Differential TDR Probe Body
- Matched Cables – 1 m (N1021-60003)
- 2 Male Shorts (0960-0055)
- 2 Male Loads (1810-0118)
- 2 F-F Adapters (1250-1666)
- 1 Adapter to positioners (N1021-60008)
- ESD Wrist Band (9300-0980)
- ESD Wrist Band Cord (9300-0980)
- ESD/EOS Labels – Multi-lingual
- Custom Storage Box

Part numbers in parentheses also available as spare items from www.keysight.com (search for “Parts”).

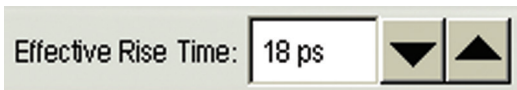


Based on the industry-standard 86100C/D Infiniium DCA oscilloscope platform, Keysight's TDR/TDT solutions provide major benefits:

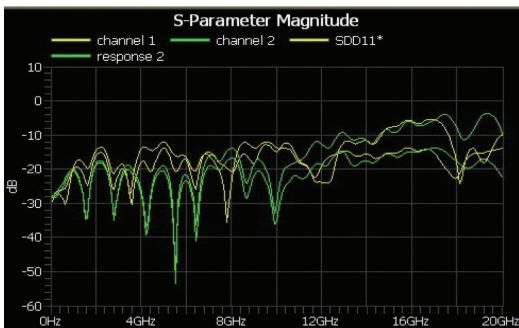
- Ease of use: Visual on-screen guides help occasional users to make good measurements without slowing down power users



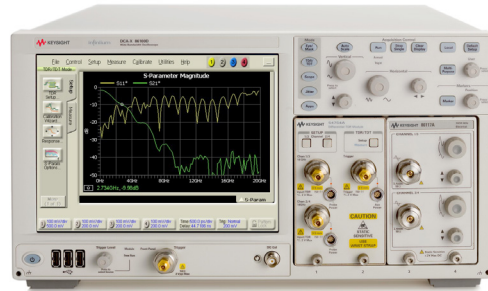
- TDR calibration: TDR calibration based on shorts and loads improves accuracy by de-embedding the cable losses between instrument and the DUT.
- Variable risetime: TDR calibration also allows users to mathematically decrease the effective risetime to less than 20 ps or increase it up to 1 ns in order to match the edge speeds of the target application.



- Live S-parameter: Magnitude, phase and group delay are live onscreen – no external SW required. Any changes or DUT tuning can be instantly observed.



Other TDR/TDT accessory:



86100C/D-202 Enhanced Impedance and S-Parameter Software



N1024B Cal Kit (for DUTs with SMA/3.5 mm connectors)

www.keysight.com/find/tdr

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus