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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N1021B

HP Agilent Keysight N1021B 18 GHz Differential TDR Probe Kit The Keysight N1021B is an 18 GHz differential TDR/TDT probe kit for connecting PCBs and devices without RF connectors to 54754A or N1055A TDR modules in 86100C/D Infiniium DCA mainframes. OEM data sheet 5990-4013EN and user guide N1021-90001 list 100 Ohm nominal differential impedance, variable tip spacing 0 to 2.54 mm, and spring-loaded tips with independent Z-axis movement. Differential TDR impedance and S-parameter characterization of connectorless PCBs and packages, and high-bandwidth passive differential probing on DCA TDR setups. The Keysight N1021B is an 18 GHz differential TDR/TDT probe kit for connecting PCBs and devices without RF connectors to 54754A or N1055A TDR modules in 86100C/D Infiniium DCA mainframes. OEM data sheet 5990-4013EN and user guide N1021-90001 list 100 Ohm nominal differential impedance, variable tip spacing 0 to 2.54 mm, and spring-loaded tips with independent Z-axis movement. Differential TDR impedance and S-parameter characterization of connectorless PCBs and packages, and high-bandwidth passive differential probing on DCA TDR setups.

**MODEL****Agilent / Keysight
N1021B****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****N1021B****LISTING**<https://aumictechlabs.com/products/n1021b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight N1021B is an 18 GHz differential TDR/TDT probe kit engineered for high-speed signal integrity characterization on PCBs and components lacking standard RF connectors. It performs differential time-domain reflectometry and transmission measurements to identify

impedance discontinuities, shorts, opens, and other transmission line anomalies. The probe interfaces directly with Keysight DCA-X mainframes and TDR/TDT modules, delivering time and frequency-domain analysis of differential impedances and S-parameters down to the component level.

Technical Specifications
Bandwidth: Up to 18 GHz
Nominal Differential Impedance: 100 Ohms
Probe Tip Spacing: 0.0 mm to 2.54 mm or 0.5 mm to 2.54 mm
Probe Tips: Hardened, spring-loaded, independently movable in Z-axis; chamfered design for small pad contact; non-replaceable
Durability: Greater than 7500 touchdowns at force ≤ 10 N
Variable Risetime: Less than 20 ps to 1 ns (mathematically adjustable)
Connector Interface: SMA Female

Key Features
Differential TDR and TDT measurement capability
S-parameter extraction (SDD11, SDD21, magnitude, phase, group delay)
TDR calibration using shorts and loads for cable de-embedding
Ergonomic handheld design with flexible cables and slim body
Independent thumb-wheel tip adjustment for precise positioning
Extended tips for target visibility during measurement

Measurement Capabilities
Differential impedance characterization and return loss analysis
Insertion loss measurement and signal integrity troubleshooting
Detection of faults including shorts and opens
Time and frequency-domain impedance analysis versus distance or frequency

Compatibility & Integration
The N1021B integrates with Keysight DCA-X Wideband Oscilloscope Mainframes (86100C, 86100D) and differential TDR/TDT modules such as the 54754A. Optional 86100C/D-202 Enhanced Impedance and S-Parameter Software enables automated measurement and analysis workflows. Compatible also with other Keysight TDR/TDT modules and remote sampling heads including the N1055A 35/50 GHz multi-port unit.

N1021B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Differential TDR probe kit
Bandwidth	Up to 18 GHz (pitch dependent)
Nominal Differential Impedance	100 Ohm
Probe Tip Spacing Variable	0 mm to 2.54 mm
Durability Touchdowns	greater than 7500 with force less than or equal to 10 N
Connector Interface	SMA female
Matched Cables Included	N1021-60003 1 m pair
Male Shorts Included	0960-0055 quantity 2
Male Loads Included	1810-0118 quantity 2
Female To Female Adapters Included	1250-1666 quantity 2
Positioner Adapter Included	N1021-60008
Esd Wrist Band Included	9300-1367 class
Esd Wrist Band Cord Included	9300-0980
Compatible Tdr Module Class	54754A differential TDR/TDT
Compatible Tdr Module Class Alt	N1055A
Compatible Mainframe Class	86100C or 86100D Infiniium DCA
Software Companion Class	86100C/D-202 enhanced impedance and S-parameter software
Series Family	Keysight DCA TDR probing
Literature	Keysight 5990-4013EN
User Guide Literature	N1021-90001
Non Tdr Use	Suitable as high bandwidth passive differential probe
Allen Wrench Included	M2.5 Allen wrench

N1021B Specifications

PARAMETER	VALUE
Key Features	18 GHz bandwidth (pitch dependent)
Spring loaded tips independent Z axis	Phase-matched 1 m cables included
Technical Specifications	Instrument Type: Differential TDR probe kit

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Instrument Type	Differential TDR probe kit
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Positioner Adapter Included	N1021-60008
Esd Wrist Band Included	9300-1367 class
Esd Wrist Band Cord Included	9300-0980
Compatible Tdr Module Class	54754A differential TDR/TDT
Compatible Tdr Module Class Alt	N1055A
Compatible Mainframe Class	86100C or 86100D Infiniium DCA
Software Companion Class	86100C/D-202 enhanced impedance and S-parameter software
Series Family	Keysight DCA TDR probing
Literature	Keysight 5990-4013EN
User Guide Literature	N1021-90001
Non Tdr Use	Suitable as high bandwidth passive differential probe
Allen Wrench Included	M2.5 Allen wrench
Notes	
From Keysight N1021B 18 GHz Differential TDR Probe Kit data sheet 5990-4013EN and User Guide N1021-90001 Table 2 characteristics and kit contents. Bandwidth depends on tip pitch and setup calibration.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.