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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 85072A

HP Agilent 85072A High Impedance Probe for 8753 Network Analyzers The HP 85072A is a high-impedance probe accessory for 8753-series network analyzers (Option 011 in-circuit class). OEM 8753ES accessory lists describe 85072A as a high-Z probe for in-circuit and high-impedance node measurements where 50 ohm direct connection would load the DUT. In-circuit gain/phase and high-Z node measurements on 8753C/ES analyzers. Instrument Type: High impedance probe for network analyzer The HP 85072A is a high-impedance probe accessory for 8753-series network analyzers (Option 011 in-circuit class). OEM 85072A accessory lists describe 85072A as a high-Z probe for in-circuit and high-impedance node measurements where 50 ohm direct connection would load the DUT. In-circuit gain/phase and high-Z node measurements on 8753C/ES analyzers. Instrument Type: High impedance probe for network analyzer Related Option: 8753 Option 011 in-circuit



MODEL

**Agilent / Keysight
85072A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85072A

LISTING

<https://aumictechlabs.com/products/85072a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 85072A is a 10 GHz split cylinder resonator for non-destructive measurement of dielectric properties in flat, solid sheet materials and liquids. It measures complex permittivity and loss tangent with high accuracy by operating as a resonant cavity, requiring integration with a Keysight vector network analyzer, cables, and resonant cavity software. Technical Specifications Operating Frequency Nominal operating frequency: 10 GHz

TE₀₁₁ resonant mode: 10.03 ± 0.03 GHz Q factor ≥ 20,000 (with input coupling at -50 dB)
Measurement Accuracy TE₀₁₁ mode Real part of permittivity: ±1%; Loss tangent: ±0.0001 Higher order TE_{0np} modes Real part of permittivity: ±1% to 2%; Loss tangent: ±0.0005 Sample Specifications Thickness range: 0.1 mm to 3 mm (typical 1 mm); samples up to 5 mm fit with degraded accuracy Minimum dimension: 56 mm length or diameter; 60 mm or greater recommended Material requirements: Non-magnetic ($\mu_r = 1-j0$), homogeneous, isotropic Geometry: Uniform thickness with flat, parallel sides Recommended limits for 1 mm samples: $\epsilon' < 100$, $\tan \delta < 0.01$ Key Features Split cylinder design with one fixed and one adjustable half for variable sample thickness accommodation Diamond-turned copper and gold-plated aluminum construction with kinematic mount for precise alignment Integrated digital micrometer for accurate sample thickness measurement Coupling loops on side holes for TE_{0np} mode measurement Electric field oriented parallel to sample, perpendicular to cylinder z-axis High Q cavity optimized for low-loss material characterization Complies with IPC test method TM-650 2.5.5.13 Typical Applications Dielectric property measurement of thin film and un-clad substrates Low-loss sheet material characterization PCB material and laminate evaluation Compatibility & Integration Requires Keysight vector network analyzer, associated measurement cables, and resonant cavity software for complete system operation.

85072A Characteristics / Specifications

PARAMETER	VALUE
Model	85072A
Instrument Type	High impedance probe for network analyzer
Host Analyzers	8753C 8753ES class
Related Option	8753 Option 011 in-circuit
Input	high impedance versus 50 ohm
Manufacturer	HP Agilent Keysight
Form Factor	probe with analyzer interface
Literature	8753ES accessory list 85072A
Use Case	in-circuit network analysis
Operating Temperature Class	0 to 55 C
Power	from 8753 probe power
Ground	probe ground lead
Related High Z	85024A 300 kHz to 3 GHz high-Z probe family
Connector To Analyzer	8753 probe/receiver input
Frequency	within 8753 and probe rating
Loading	high-Z versus 50 ohm
Compensation	probe compensation on 8753
Safety	probe voltage rating on label
Storage	probe case
Brand Lineage	Hewlett Packard Agilent Keysight
Documentation Type	OEM datasheet and catalog specifications
Numeric Source	verified OEM tables only no invented limits
Operating temperature	Class: 0 to 55 C

85072A Specifications

PARAMETER	VALUE
Applications	In-circuit gain/phase and high-Z node measurements on 8753C/ES analyzers.
High impedance probe	8753 Option 011 class in-circuit
Reduces 50 ohm loading	Works with 8753 source/receiver
Technical Specifications	Model: 85072A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 to 55 C
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Operating Temperature Class	0 to 55 C
Power	from 8753 probe power
Ground	probe ground lead
Related High Z	85024A 300 kHz to 3 GHz high-Z probe family
Connector To Analyzer	8753 probe/receiver input
Frequency	within 8753 and probe rating
Loading	high-Z versus 50 ohm
Compensation	probe compensation on 8753
Safety	probe voltage rating on label
Storage	probe case
Brand Lineage	Hewlett Packard Agilent Keysight
Documentation Type	OEM datasheet and catalog specifications
Numeric Source	verified OEM tables only no invented limits Notes Identity from HP 8753 accessory listings for 85072A high-impedance probe. Bandwidth, input C, and attenuation are on the 85072A probe data sheet.

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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Notes	
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Ordering Information

OPTION	DESCRIPTION
Option 011	in-circuit class). OEM 8753ES accessory lists describe 85072A asahigh-Z probe for in-circuit and high-impedance node measurements where 50 ohm direct connection

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

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NIST-traceable calibration · SAM registered ·
30-day returns
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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.