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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 85106D

HP Agilent 85106D Millimeter Wave 8510C Network Analyzer System 33 to 110 GHz The HP/Agilent 85106D is the millimeter-wave 8510C system for 33 to 110 GHz in four waveguide bands. OEM 8510C data sheet lists two 85104A-series millimeter-wave test-set modules, two 83621B synthesized sweepers, 11644A-series waveguide calibration kits, and TRL two-port calibration. Receiver dynamic range is 99/97/85/79 dB and system dynamic range 87/87/75/76 dB across 33-50 / 40-60 / 50-75 / 75-110 GHz. Waveguide S-parameter measurements in Q, U, V, and W bands from 33 to 110 GHz. The HP/Agilent 85106D is the millimeter-wave 8510C system for 33 to 110 GHz in four waveguide bands. OEM 8510C data sheet lists two 85104A-series millimeter-wave test-set modules, two 83621B synthesized sweepers, 11644A-series waveguide calibration kits, and TRL two-port calibration. Receiver dynamic range is 99/97/85/79 dB and system dynamic range 87/87/75/76 dB across 33-50 / 40-60 / 50-75 / 75-110 GHz. Waveguide S-parameter measurements in Q, U, V, and W bands from 33 to 110 GHz. TRL waveguide calibration with 11644A kits



MODEL

**Agilent / Keysight
85106D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85106D

LISTING

<https://aumictechlabs.com/products/85106d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 85106D is a millimeter-wave network analyzer system that extends the 8510C Network Analyzer into the millimeter-wave frequency domain. It delivers precision S-parameter measurements across four configurable waveguide bands using Thru, Reflect, Line

(TRL) calibration to achieve directivity and source match uncertainties of 46 to 50 dB. The system integrates the 8505A millimeter-wave test set controller with two 85104A test set modules, housing frequency multipliers, directional couplers, harmonic mixers, and isolators for complete S-parameter characterization. Technical Specifications Frequency Range: 33 to 50 GHz (WR-22), 40 to 60 GHz (WR-19), 50 to 75 GHz (WR-15), 75 to 110 GHz (WR-10) Calibration Method: Thru, Reflect, Line (TRL) standards Residual System Uncertainties: Directivity 46 to 50 dB; Source Match 46 to 50 dB Dynamic Range: 87 to 75 dB Test Set Controller: Agilent 8505A with integrated amplification and switching Test Set Modules: Two Agilent 85104A series units Key Features Configurable across four millimeter-wave bands for application-specific deployment TRL calibration reduces systematic errors and residual uncertainties in directivity and source match measurements. High dynamic range supports component characterization across wide power variations. Test set modules designed for maneuverable benchtop operation during calibration and measurement. Deployable in rack or benchtop configuration. Typical Applications Precision S-parameter measurements of millimeter-wave components Characterization of devices across wide power ranges Compatibility & Integration Host system: Agilent 8510C Network Analyzer. Optional configurations include the 8517B S-parameter test set (45 MHz to 50 GHz), 85056A 2.4 mm calibration kit, and 85133F 2.4 mm test port cable set. Option 007 adds high power and high dynamic range to the 8517B test set. Option 010 adds time-domain capability.

85106D Characteristics / Specifications

PARAMETER	VALUE
Model	85106D
Instrument Type	millimeter-wave 8510C vector network analyzer system
Frequency Range	33 GHz to 110 GHz
Waveguide Bands	33-50, 40-60, 50-75, and 75-110 GHz
Test Set Modules	two 85104A series millimeter-wave test set modules
Rf Sources	two 83621B synthesized sweepers
Calibration Kit	11644A series waveguide
Calibration Technique	TRL two-port
Max Power Port2 33 To 50 Ghz	plus 12 dBm
Max Power Port2 40 To 60 Ghz	plus 10 dBm
Max Power Port2 50 To 75 Ghz	plus 10 dBm
Max Power Port2 75 To 110 Ghz	0 dBm
Reference Power 33 To 75 Ghz	0 dBm nominal
Reference Power 75 To 110 Ghz	minus 3 dBm nominal
Min Power Port2 33 To 50 Ghz	minus 87 dBm
Min Power Port2 40 To 60 Ghz	minus 87 dBm
Min Power Port2 50 To 75 Ghz	minus 75 dBm
Min Power Port2 75 To 110 Ghz	minus 79 dBm
Receiver Dynamic Range 33 To 50 Ghz	99 dB
Receiver Dynamic Range 40 To 60 Ghz	97 dB
Receiver Dynamic Range 50 To 75 Ghz	85 dB
Receiver Dynamic Range 75 To 110 Ghz	79 dB
System Dynamic Range 33 To 60 Ghz	87 dB
System Dynamic Range 50 To 75 Ghz	75 dB
System Dynamic Range 75 To 110 Ghz	76 dB

PARAMETER	VALUE
Specification Temperature	23 C plus or minus 3 C
Manufacturer	HP Agilent Keysight
Processor	8510C / 85101C display processor

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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Calibration Technique	TRL two-port
Max Power Port2 33 To 50 Ghz	plus 12 dBm
Max Power Port2 40 To 60 Ghz	plus 10 dBm
Max Power Port2 50 To 75 Ghz	plus 10 dBm
Max Power Port2 75 To 110 Ghz	0 dBm
Reference Power 33 To 75 Ghz	0 dBm nominal
Reference Power 75 To 110 Ghz	minus 3 dBm nominal
Min Power Port2 33 To 50 Ghz	minus 87 dBm
Min Power Port2 40 To 60 Ghz	minus 87 dBm
Min Power Port2 50 To 75 Ghz	minus 75 dBm
Min Power Port2 75 To 110 Ghz	minus 79 dBm
Receiver Dynamic Range 33 To 50 Ghz	99 dB
Receiver Dynamic Range 40 To 60 Ghz	97 dB
Receiver Dynamic Range 50 To 75 Ghz	85 dB
Receiver Dynamic Range 75 To 110 Ghz	79 dB
System Dynamic Range 33 To 60 Ghz	87 dB
System Dynamic Range 50 To 75 Ghz	75 dB
System Dynamic Range 75 To 110 Ghz	76 dB
Specification Temperature	23 C plus or minus 3 C

PARAMETER	VALUE
Manufacturer	HP Agilent Keysight
Processor	8510C / 85101C display processor

Notes
From Agilent 8510C Network Analyzer data sheet 85106D millimeter-wave system table. Complete 85106D system data sheet has band-by-band residual port characteristics.

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.