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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 85102C

HP Agilent 85102C 8510C IF Detector Module The HP 85102C is the IF/detector of the 8510C network analyzer. OEM 8510C service manual block diagrams identify 85102C IF/Detector overall architecture, while data sheet 5091-8484E lists 45 MHz to 50 GHz in 2.4 mm coax, 45 MHz to 110 GHz in 1.0 mm coax, and 33 to 110 GHz in waveguide with 85101C display/processor. IF detection for 8510C systems including 8517A 50 GHz test sets, 85106C mm-wave, and 85108A pulsed-RF configurations. Pairs with 85101C color display/processor The HP 85102C is the IF/detector of the 8510C network analyzer. OEM 8510C service manual block diagrams identify 85102C IF/Detector overall architecture, while data sheet 5091-8484E lists 45 MHz to 50 GHz in 2.4 mm coax, 45 MHz to 110 GHz in 1.0 mm coax, and 33 to 110 GHz in waveguide with 85101C display/processor. IF detection for 8510C systems including 8517A 50 GHz test sets, 85106C mm-wave, and 85108A pulsed-RF configurations. Pairs with 85101C color display/processor Broadband 45 MHz to 110 GHz family coverage



MODEL

**Agilent / Keysight
85102C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85102C

LISTING

<https://aumictechlabs.com/products/85102c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 85102C is a test set component engineered for precision S-parameter measurements within the 8510 series network analyzer platform. Operating across 45 MHz to 110 GHz when configured with compatible sources and accessories, it delivers two-port network characterization with magnitude, phase, and group delay analysis. The modular design enables

flexible system configuration tailored to specific measurement requirements. Technical Specifications Frequency Range: 45 MHz to 110 GHz (system-dependent on source and test set configuration) S-Parameter Measurements: Two-port networks with magnitude, phase, and group delay; optional time-domain analysis via inverse Fourier transform Calibration: Full two-port calibration with sliding loads; compatible with 85052B 3.5 mm calibration kits Receiver Dynamic Range: Up to 106 dB System Dynamic Range: Up to 93 dB (frequency and configuration dependent) Measurement Resolution: Magnitude: 0.001 dB Phase: 0.01 degrees Group Delay: 0.01 nanoseconds Reference Power (Port 1): Typically +2 dBm or -2 dBm (frequency-dependent) Port 2 Power Range: -66 dBm to -95 dBm (minimum); +20 dBm to -4 dBm (maximum, frequency-dependent) IF Signal: 20 MHz Key Features J10 TEST SET INTERCONNECT port for system integration Standard RF input/output ports for device under test connection GPIB control interface 20 MHz output on rear panel for diagnostic and calibration functions Typical Applications Microwave component characterization Two-port network analysis and validation Integrated system S-parameter measurement Compatibility & Integration Designed for integration with the Agilent/Keysight 8510C Vector Network Analyzer. Compatible with various RF sources and system accessories to achieve extended frequency coverage and measurement capabilities.

85102C Characteristics / Specifications

PARAMETER	VALUE
Model	85102C
Instrument Type	8510C IF/detector module
Family Frequency Coax 2p4 Mm	45 MHz to 50 GHz
Family Frequency Coax 1p0 Mm	45 MHz to 110 GHz
Family Frequency Waveguide	33 GHz to 110 GHz
Partner Display	85101C display/processor
Partner Test Set 8517A	50 GHz 2.4 mm
Partner Test Set 8515A	26.5 GHz 3.5 mm
Partner Test Set 8514B	20 GHz 3.5 mm
Partner Source	8360 series synthesized sweeperSParameters: S11 S21 S12 S22
Measurement Types	magnitude phase group delay
Time Domain	Option 010
Pulse Profile	Option 008
Manufacturer	HP Agilent Keysight
Form Factor	8510C bottom-box IF/detector
Related If Detector 85102B	prior IF/detector
Display Partner Crt	7.5 inch 16-color on 85101C
Electrical Delay Class	plus or minus 1 second on 85101C
Sweep Ramp Accuracy Class	plus or minus 0.1 percent of span with 8360
Step Sweep Points Example	201 points in 1.6 s quick-step class
Use Case	8510C VNA IF detection
Bus	HP-IB via 85101C
Two Port Networks	linear characterization

85102C Specifications

PARAMETER	VALUE
HP Agilent 85102C 8510C IF Detector Module	Overview
Applications	IF detection for 8510C systems including 8517A 50 GHz test sets, 85106C mm-wave, and 85108A pulsed-RF configurations.
Key Features	8510C IF/detector bottom box
Pairs with 85101C color display/processor	Broadband 45 MHz to 110 GHz family coverage
Technical Specifications	Model: 85102C

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	
Technical Specifications	
PARAMETER	VALUE
Model	85102C
Instrument Type	8510C IF/detector module
Family Frequency Coax 2p4 Mm	45 MHz to 50 GHz
Family Frequency Coax 1p0 Mm	45 MHz to 110 GHz
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Partner Test Set 8514B	20 GHz 3.5 mm
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Measurement Types	magnitude phase group delay
Time Domain	Option 010
Pulse Profile	Option 008
Manufacturer	HP Agilent Keysight
Form Factor	8510C bottom-box IF/detector
Related If Detector 85102B	prior IF/detector
Display Partner Crt	7.5 inch 16-color on 85101C
Electrical Delay Class	plus or minus 1 second on 85101C
Sweep Ramp Accuracy Class	plus or minus 0.1 percent of span with 8360
Step Sweep Points Example	201 points in 1.6 s quick-step class
Use Case	8510C VNA IF detection
Bus	HP-IB via 85101C
Two Port Networks	linear characterization
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PARAMETER	VALUE
Model	85102C
Instrument Type	8510C IF/detector module
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Family Frequency Coax 1p0 Mm	45 MHz to 110 GHz
Family Frequency Waveguide	33 GHz to 110 GHz
Partner Display	85101C display/processor
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Time Domain	Option 010
Pulse Profile	Option 008
Manufacturer	HP Agilent Keysight
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Electrical Delay Class	plus or minus 1 second on 85101C
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Step Sweep Points Example	201 points in 1.6 s quick-step class
Use Case	8510C VNA IF detection
Bus	HP-IB via 85101C
Two Port Networks	linear characterization

Notes

From Agilent 8510C data sheet 5091-8484E and 8510C service 85102C IF/Detector identification. Noise floor and dynamic range are test-set dependent.

Ordering Information

OPTION	DESCRIPTION
Option 010	time domain and Option 008 pulse profile

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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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.