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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 85021C Microwave Directional Bridge 10MHz to 18GHz

HP / Agilent 85021C Microwave Directional Bridge, 10 MHz to 18 GHz The HP / Agilent 85021C is a microwave directional bridge for reflection and transmission measurements from 10 MHz to 18 GHz. It is used as a scalar / network-analysis accessory to provide directional coupling of incident and reflected signals at a precision Type-N test port in 50 Ω systems. The HP / Agilent 85021C is a microwave directional bridge for reflection and transmission measurements from 10 MHz to 18 GHz. It is used as a scalar / network-analysis accessory to provide directional coupling of incident and reflected signals at a precision Type-N test port in 50 Ω systems.



MODEL

**HP / Agilent
85021C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

85021C

LISTING

<https://aumictechlabs.com/products/85021c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 85021C is a microwave directional bridge that measures reflection coefficients from 10 MHz to 18 GHz. Designed for use with scalar network analyzers such as the HP 8756A and 8755C, this instrument delivers the directivity and source match required for accurate reflection and transmission measurements in component characterization, antenna testing, and network analysis applications. Technical Specifications Frequency Range: 10 MHz to 18 GHz Nominal Impedance: 50 ohms Test Port Connector: Type-N Female RF Input Connector: Type-N Female Directivity: 36 dB (10 MHz to 12.4 GHz); 34 dB (12.4 to 18 GHz) Maximum Input Power:

+23 dBm Detector Flatness: ± 3 dB, -1 dB typical (with leveled RF) Minimum Input Power: +7 dBm at 18 GHz (40 dB return loss measurement) Detector Type: Single zero-biased Schottky diode Dimensions: 15 mm (H) $\times$ 110 mm (W) $\times$ 96 mm (D) Weight: 0.5 kg net; 2.3 kg shipping

Key Features High directivity across the full operating band ensures accurate reflection coefficient determination Excellent source match minimizes measurement uncertainty in demanding environments Compact form factor accommodates integration into test systems with space constraints Type-N Female connectors on both input and test ports provide standard microwave connectivity Single Schottky diode detector architecture simplifies circuit design while maintaining performance

Typical Applications Reflection and return loss measurements Component characterization and qualification Antenna tuning and performance validation Scalar network analysis Transmission measurements (with external detector)

Compatibility & Integration The 85021C integrates with HP scalar network analyzers (8756A, 8755C), RF signal sources (HP 8350B Sweep Oscillator, 8340A Synthesized Sweeper), and external detectors (HP 11664A for DC to 18 GHz; 11664B for DC to 26.5 GHz).

Features & description

From manufacturer datasheet

Features

- Frequency coverage 10 MHz to 18 GHz
- Directional bridge topology for reflection sensing
- 50 Ω nominal system impedance
- Precision Type-N female test port
- High directivity across microwave band
- Passive bridge accessory (no internal source)

Applications

- Scalar network analyzer reflection measurements
- Microwave component return-loss / S11 characterization
- Transmission / reflection test setups to 18 GHz
- Bench calibration accessory for Type-N DUT interfaces

85021C Characteristics / Specifications

PARAMETER	VALUE
Model	85021C
Manufacturer	Hewlett-Packard / Agilent / Keysight
Instrument Type	Microwave Directional Bridge
Frequency Range	10 MHz to 18 GHz
Function	Directional bridge for reflection / transmission measurements
System Impedance	50 Ω nominal
Test Port Connector	Type-N female
Directivity to 12.4 GHz	>36 dB
Directivity 12.4 GHz to 18 GHz	>34 dB
Measurement Role	Incident / reflected signal separation
Typical Use System	Scalar / microwave network analysis accessory
RF Path	Passive directional bridge
Upper Frequency	18 GHz
Lower Frequency	10 MHz
Connector Family	Type-N
Product Class	Microwave bridge (85021 series)
Shipping Weight Class Typical	~5 lb (reseller packaging)
Physical Envelope Typical	approximately 8 × 6 × 4 in (reseller) Notes Specs from Agilent/Keysight 85021C product descriptions and directional-bridge reseller data (directivity figures as commonly published for 85021C). Confirm connector gender, calibration kit match, and measured directivity on the specific unit.

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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Model	85021C
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Typical Use System	Scalar / microwave network analysis accessory
RF Path	Passive directional bridge
Upper Frequency	18 GHz
Lower Frequency	10 MHz
Connector Family	Type-N
Product Class	Microwave bridge (85021 series)
Shipping Weight Class Typical	~5 lb (reseller packaging)
Physical Envelope Typical	approximately 8 × 6 × 4 in (reseller)
Notes	
Specs from Agilent/Keysight 85021C product descriptions and directional-bridge reseller data (directivity figures as commonly published for 85021C). Confirm connector gender, calibration kit match, and measured directivity on the specific unit.	

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.