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Data Sheet

August 14, 2026

AGILENT

Agilent 53148A 26.5 GHz Microwave Frequency Counter/Power Meter/DVM

Agilent Keysight 53148A 26.5 GHz Microwave Counter Power Meter DVM The Agilent/Keysight 53148A is the 26.5 GHz member of the 53140 series portable microwave frequency counter with integrated true power meter and DC digital voltmeter. OEM 53140 Series technical overview lists Channel 1 to 125 MHz, Channel 2 50 MHz to 26.5 GHz, 8480-series sensor power metering, and plus or minus 50 Vdc DVM in one package with GPIB and RS-232 standard. Field and bench microwave CW frequency counting, sensor-based RF power measurement, and simultaneous DC voltage checks on microwave assemblies and ATE racks. The Agilent/Keysight 53148A is the 26.5 GHz member of the 53140 series portable microwave frequency counter with integrated true power meter and DC digital voltmeter. OEM 53140 Series technical overview lists Channel 1 to 125 MHz, Channel 2 50 MHz to 26.5 GHz, 8480-series sensor power metering, and plus or minus 50 Vdc DVM in one package with GPIB and RS-232 standard. Field and bench microwave CW frequency counting, sensor-based RF power measurement, and simultaneous DC voltage checks on microwave assemblies and ATE racks.



MODEL

Agilent 53148A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

53148A

LISTING

<https://aumictechlabs.com/products/53148a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent 53148A is a three-in-one portable instrument combining a CW microwave frequency counter, true power meter, and DC digital voltmeter into a single compact unit. Designed for field service, microwave link installation and maintenance, and ATE systems where rack space is critical, it delivers microwave measurement capability to 26.5 GHz with integrated power analysis and voltage monitoring.

Technical Specifications

Frequency Counter Two measurement channels
Channel 1: 10 Hz to 125 MHz Channel 2 (Microwave): 50 MHz to 26.5 GHz CW Selectable
resolution: 1 Hz to 1 MHz Accuracy: ± 1 Least Significant Digit Measurement time (typical):
1/Resolution + 30 ms (Channel 1); 1/Resolution + Acquisition time + 30 ms (Channel 2) Acquisition
time (typical): 150 ms/125 ms (FM Auto/FM Off) at 1 MHz FM rate with power meter off FM
tolerance: 20 MHz peak-to-peak maximum at 10 MHz rate to 26.5 GHz (FM Auto); 1 MHz peak-to-
peak at 10 MHz rate (FM Off) Amplitude discrimination: Automatically isolates signals >10 dB
above adjacent signals separated by <75 MHz Power Meter Type: True Power Meter Range: -70
dBm to +44 dBm (sensor-dependent) Resolution: 0.01 dB Basic instrument accuracy: 0.02 dB
Graphical peaking meter for power adjustment Relative and offset reading modes Digital Voltmeter
DC measurement capability Range: ± 50 Vdc Monitors AGC circuitry and power supplies

Key Features LCD display with switchable backlight Averaging function for signal stabilization
Compact form factor reduces test setup complexity

Compatibility & Integration Accepts Agilent/Keysight 8480 Series power sensors: 8481A/B/D, 8482A/B, 8484A, 11708A, 8485A/D, and 8487A for extended frequency and dynamic range coverage.

53148A Characteristics / Specifications

PARAMETER	VALUE
Model	53148A
Channel 1 Frequency Range Normal	10 Hz to 125 MHz
Channel 1 Frequency Range LPF Enabled	10 Hz to 50 kHz
Channel 2 Frequency Range	50 MHz to 26.5 GHz
Channel 1 Sensitivity 10 To 30 Hz	40 mVrms
Channel 1 Sensitivity 30 Hz To 125 MHz	25 mVrms
Channel 2 Sensitivity 50 To 300 MHz	minus 20 dBm
Channel 2 Sensitivity 0.3 To 12.4 GHz	minus 33 dBm
Channel 2 Sensitivity 12.4 To 18 GHz	minus 33 dBm
Channel 2 Sensitivity 18 To 20 GHz	minus 29 dBm
Channel 2 Sensitivity 20 To 26.5 GHz	minus 25 dBm
Power Meter Frequency Range	100 kHz to 50 GHz sensor dependent
Power Meter Power Range	minus 70 to plus 44 dBm sensor dependent
Power Sensors Supported	8480 Series
Power Meter Resolution Log	0.01 dB
Power Meter Instrumentation Accuracy	plus or minus 0.02 dB or plus or minus 0.5 percent
Power Reference Output	1.00 mW at 50 MHz nominal
Power Reference Accuracy 1 Year Worst Case	plus or minus 1.2 percent
DVM Range	plus or minus 50 Vdc
DVM Resolution	2 mV
DVM Accuracy	plus or minus 0.25 percent of reading plus or minus 10 mV
DVM Damage Level	plus or minus 60 Vdc
DVM Input Resistance	0.5 MOhm nominal
Remote Interfaces	GPIB and RS-232 standard

53148A Specifications

PARAMETER	VALUE
Three instruments in one portable package	Ultra-wideband Channel 2 microwave input to 26.5 GHz
Optional oven timebase and battery DC input	GPIB and RS-232 standard
Technical Specifications	Model: 53148A

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	
Specifications	
PARAMETER	VALUE
Model	53148A
Channel 1 Frequency Range Normal	10 Hz to 125 MHz
Channel 1 Frequency Range LPF Enabled	10 Hz to 50 kHz
Channel 2 Frequency Range	50 MHz to 26.5 GHz
Channel 1 Sensitivity 10 To 30 Hz	40 mVrms
Channel 1 Sensitivity 30 Hz To 125 MHz: 25 mVrms	
Specifications	
PARAMETER	VALUE
Channel 2 Sensitivity 50 To 300 MHz	minus 20 dBm
Channel 2 Sensitivity 0.3 To 12.4 GHz	minus 33 dBm
Channel 2 Sensitivity 12.4 To 18 GHz	minus 33 dBm
Channel 2 Sensitivity 18 To 20 GHz	minus 29 dBm
Channel 2 Sensitivity 20 To 26.5 GHz	minus 25 dBm
Power Meter Frequency Range	100 kHz to 50 GHz sensor dependent
Power Meter Power Range	minus 70 to plus 44 dBm sensor dependent
Power Sensors Supported	8480 Series
Power Meter Resolution Log	0.01 dB
Power Meter Instrumentation Accuracy	plus or minus 0.02 dB or plus or minus 0.5 percent
Power Reference Output	1.00 mW at 50 MHz nominal
Power Reference Accuracy 1 Year Worst Case	plus or minus 1.2 percent
DVM Range	plus or minus 50 Vdc
DVM Resolution	2 mV
DVM Accuracy	plus or minus 0.25 percent of reading plus or minus 10 mV
DVM Damage Level	plus or minus 60 Vdc
DVM Input Resistance	0.5 MOhm nominal

PARAMETER	VALUE
Remote Interfaces	GPIB and RS-232 standard

Option 001: high stability oven timebase

Option 002: internal battery and DC power input

Notes

From Agilent/Keysight 53140 Series Microwave Counter Power Meter and DVM technical overview model column for 53148A. Confirm installed options and power sensor model for system accuracy.

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.