

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ANRITSU

Anritsu 54147A Scalar Network Analyzer, 10 MHz to 20 GHz

Reverse power protection: up to 5 W family claim Measurement modes: transmission return loss SWR power DTF group delay Product status: discontinued 54100A series Specs from Anritsu/Wiltron 54100A series technical data and 54147A calibration listings (10 MHz–20 GHz). Confirm installed options 02/05/06/07/08/16 and detector/autotester complement.

Measurement modes: transmission return loss SWR power DTF group delay Product status: discontinued 54100A series Specs from Anritsu/Wiltron 54100A series technical data and 54147A calibration listings (10 MHz–20 GHz). Confirm installed options 02/05/06/07/08/16 and detector/autotester complement.



MODEL

Anritsu 54147A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

54147A

LISTING

<https://aumictechlabs.com/products/54147a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Anritsu 54147A is a scalar network analyzer that measures RF and microwave signal amplitude across 10 MHz to 20 GHz. It delivers transmission, return loss, precision return loss, SWR, and power measurements with optional distance-to-fault and relative group delay capabilities. The instrument features three input channels - two standard (A and B) plus an optional reference (R) - enabling simultaneous dual-channel display and ratio calculations (A/R, B/R) for signal characterization across component and system test workflows. Technical

Specifications Frequency Range: 10 MHz to 20 GHz Measurement Modes: Transmission (dB) Return Loss (dB) Precision Return Loss (dB) SWR (linear) Power (dBm) Optional: Distance-To-Fault (feet or meters) Optional: Relative Group Delay (ns) Dynamic Range: -55 dBm to +16 dBm Display Resolution: Horizontal: 51, 101, 201, or 401 points. Vertical: 0.025 dB, 0.0025 ns Vertical Scaling: 0.1 dB(m) to 10 dB(m) per division with independent channel control. Offset range: -99.9 dB to +99.9 dB, -99.9 to +99.9 ns Averaging: 2, 4, 8, 16, 32, 64, 128, or 256 traces with independent per-channel control Source: Frequency resolution ± 100 kHz. Start frequency accuracy ± 200 kHz. Sweep time typically <70 ms (101 point, single channel). Trace update time typically 130 ms Power Level Accuracy: ± 1 dB leveled. ± 3.0 dB above 20 GHz. Option 4 (75 Ω): add ± 0.2 dB. With 70 dB step attenuator: degrades by ± 1.5 dB

Key Features Three-channel input architecture with dual simultaneous display Automated bandwidth search and fast recall mode for procedure efficiency Independent scaling and averaging per channel IEEE-488.2 GPIB interface with integrated plotter control Optional 70 dB RF step attenuator (10 dB steps) Optional external leveling and reference channel modules

Typical Applications Component and system design, manufacturing test, RF/microwave characterization

Compatibility & Integration IEEE-488.2 compliant. Weight: 42 lbs.

Features & description

From manufacturer datasheet

Features

- Integrated source 10 MHz to 20 GHz with crystal reference
- Transmission return loss SWR power and optional group delay
- Optional distance-to-fault software
- Dual display channels with ratio A/R or B/R
- IEEE-488.2 GPIB with plotter control
- Built-in floppy disk and automation features

Applications

- Filter amplifier antenna cable and adapter scalar characterization
- Production tuning with bandwidth search and limit lines
- Distance-to-fault cable fault location with Option 7
- Absolute power and return-loss QA to 20 GHz

54147A Characteristics / Specifications

PARAMETER	VALUE
Model	54147A
Manufacturer	Anritsu / Wiltron
Instrument Type	Scalar Network Analyzer
Alias	54147A; Wiltron 54147A; 54100A series
Frequency range	10 MHz to 20 GHz
Source frequency resolution	plus or minus 100 kHz
Start frequency accuracy	plus or minus 200 kHz
Analyzer dynamic range	-55 dBm to +16 dBm
Detection	AC detection autozero with 560 or 5400 series detectors
Input channels standard	A and BOptional reference channel: R Option 5
Display channels	2 simultaneous from A or RRatio displays: A/R and B/R
Horizontal resolution points	51 101 201 or 401
Vertical resolution	0.025 dB or 0.0025 ns
Vertical scaling	0.1 to 10 dB per division
Offset range	-99.9 to +99.9 dB
Averaging factors	2 to 256 successive traces
Power level accuracy leveled	plus or minus 1 dB
Sweep time single band typical	less than 70 ms at 101 points
Trace update typical	about 130 ms
Remote interface	IEEE-488.2 GPIB
Reverse power protection	up to 5 W family claim
Measurement modes	transmission return loss SWR power DTF group delay
Mass typical listing	about 42 lb
Product status	discontinued 54100A series Notes Specs from Anritsu/Wiltron 54100A series technical data and 54147A calibration listings (10 MHz–20 GHz). Confirm installed options 02/05/06/07/08/16 and detector/autotester complement.

PARAMETER	VALUE
Bandwidth	search and limit lines - Distance-to-fault cable fault location with Option 7
Return loss	SWR power and optional group delay - Optional distance-to-fault software - Dual display channels with ratio A/R or B/R - IEEE-488.2 GPIB with plotter control - Built-in floppy disk and automation features

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	54147A
Manufacturer	Anritsu / Wiltron
Instrument Type	Scalar Network Analyzer
Alias	54147A; Wiltron 54147A; 54100A series
Frequency range	10 MHz to 20 GHz
Source frequency resolution	plus or minus 100 kHz
Start frequency accuracy	plus or minus 200 kHz
Analyzer dynamic range	-55 dBm to +16 dBm
Detection	AC detection autozero with 560 or 5400 series detectors
Input channels standard	A and B
Specifications	
PARAMETER	VALUE
Model	54147A
Manufacturer	Anritsu / Wiltron
Instrument Type	Scalar Network Analyzer
Alias	54147A; Wiltron 54147A; 54100A series
Frequency range	10 MHz to 20 GHz
Source frequency resolution	plus or minus 100 kHz
Start frequency accuracy	plus or minus 200 kHz
Analyzer dynamic range	-55 dBm to +16 dBm
Detection	AC detection autozero with 560 or 5400 series detectors
Input channels standard	A and BOptional reference channel: R Option 5
Display channels	2 simultaneous from A or B or Ratio displays: A/R and B/R
Horizontal resolution points	51 101 201 or 401
Vertical resolution	0.025 dB or 0.0025 ns

PARAMETER	VALUE
Vertical scaling	0.1 to 10 dB per division
Offset range	-99.9 to +99.9 dB
Averaging factors	2 to 256 successive traces
Power level accuracy leveled	plus or minus 1 dB
Sweep time single band typical	less than 70 ms at 101 points
Trace update typical	about 130 ms

Option 2: 70 dB RF step attenuator 10 dB steps

Option 5: add reference channelROption 6: add external leveling

Option 7: internal distance to fault software

Option 8: relative group delay

Specifications

PARAMETER	VALUE
Remote interface	IEEE-488.2 GPIB
Reverse power protection	up to 5 W family claim
Measurement modes	transmission return loss SWR power DTF group delay
Mass typical listing	about 42 lb
Product status	discontinued 54100A series

Notes

Specs from Anritsu/Wiltron 54100A series technical data and 54147A calibration listings (10 MHz–20 GHz).

Confirm installed options 02/05/06/07/08/16 and detector/autotester complement.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.