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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight U9391F

Agilent Keysight U9391F Comb Generator 10 MHz to 50 GHz The Keysight U9391F is a USB-controlled comb generator for PNA/PNA-X nonlinear and converter phase calibration. OEM U9391C/F/G technical overview lists 10 MHz to 50 GHz output, 10 MHz to 6 GHz input, minus 15 to plus 15 dBm input power, and selectable divide ratios 1/2/4/8/16. NIST-traceable NVNA phase reference and phase calibration, frequency converter group delay without mixers, and harmonic comb stimulus for microwave characterization. InP MMIC based phase-stable comb generation The Keysight U9391F is a USB-controlled comb generator for PNA/PNA-X nonlinear and converter phase calibration. OEM U9391C/F/G technical overview lists 10 MHz to 50 GHz output, 10 MHz to 6 GHz input, minus 15 to plus 15 dBm input power, and selectable divide ratios 1/2/4/8/16. NIST-traceable NVNA phase reference and phase calibration, frequency converter group delay without mixers, and harmonic comb stimulus for microwave characterization. InP MMIC based phase-stable comb generation USB control with external plus 15 Vdc bias supply

**MODEL****Agilent / Keysight
U9391F****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****U9391F****LISTING**<https://aumictechlabs.com/products/u9391f-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight U9391F is a comb generator that generates frequency harmonics from an RF input signal for precision phase calibration in nonlinear measurements. Built on InP MMIC technology, it delivers excellent amplitude and phase flatness across a wide output frequency span, making it

the calibration standard for the Keysight PNA-X nonlinear vector network analyzer (NVNA). The unit accepts input signals from 10 MHz to 6 GHz and produces harmonics spanning 10 MHz to 50 GHz. Its user-selectable divide ratio (1, 2, 4, 8, or 16) and USB-controlled frequency divider enable flexible tone spacing down to 10 MHz minimum, critical for characterizing nonlinear devices. Calibration data is NIST-traceable and retrieved rapidly via plug-and-play USB integration with the PNA-X platform.

Technical Specifications

Output Frequency Range: 10 MHz to 50 GHz
Input Frequency Range: 10 MHz to 6 GHz
Input Power Range: -15 dBm to +15 dBm
Minimum Output Power per Picket: -80 dBm at 10 MHz input PRF
Typical Output Power: -95 dBm
Divide Ratio: 1, 2, 4, 8, or 16
Minimum Tone Spacing: 10 MHz
Power Supply: +15 VDC $\pm 10\%$
Current Consumption: 300 mA (nominal)
Operating Temperature: 0 °C to 40 °C
Storage Temperature: -40 °C to 70 °C
Weight: 0.370 kg

Key Features

- InP MMIC technology for superior phase stability
- USB control interface with PNA-X NVNA integration
- Selectable divide ratios for wide input signal frequency accommodation
- Bulk-head connectors (1.85 mm, 2.4 mm, 3.5 mm); 2.4 mm output ESD immunity: 8 kV direct discharge, 15 kV air discharge per IEC 61000-4-2
- Operating altitude rating: <4,572 meters

Typical Applications

- Nonlinear device characterization and S-parameter measurement
- Phase calibration in vector network analysis
- Multi-tone stimulus generation for intermodulation testing

Compatibility & Integration

Designed for seamless integration with Keysight PNA-X NVNA systems via USB plug-and-play connectivity. Windows 10 64-bit (Version 1809+) or Windows 11 64-bit required; Intel Core i5 processor, 8 GB RAM, and 1920×1080 display recommended.

U9391F Characteristics / Specifications

PARAMETER	VALUE
Model	U9391F
Instrument Type	microwave comb generator
Output Frequency Range	10 MHz to 50 GHz
Input Frequency Range	10 MHz to 6 GHz
Input Power Range	minus 15 to plus 15 dBm
Minimum Output Power Per Picket	minus 95 dBm at 10 MHz input PRF
Amplitude Flatness Versus Output Frequency	less than 25 dB at 10 MHz input PRF
Amplitude Flatness Versus Input Power Typical	0.5 dB
Pulse Width	less than 23 ps
Divide Ratio	1 2 4 8 16
Input Return Loss S	greater than 10 dB from 10 MHz to 6 GHz
Output Return Loss S22 10 MHz to 20 GHz	greater than 10 dB
Output Return Loss S22 20 GHz to 45 GHz	greater than 7 dB
Output Return Loss S22 45 GHz to 50 GHz	greater than 5 dB
Drive Supply Voltage	plus 15 Vdc plus or minus 10 percent
Drive Supply Current Nominal	300 mA
Control Interface	USB
Minimum Tone Spacing	10 MHz
Form Factor	compact RF module
Series Family	Keysight U9391
Related Models	U9391C U9391G U9391M
Operating Temperature Class	laboratory 0 C to 40 C class

PARAMETER	VALUE
Phase Flatness 10 MHz to 28 GHz	plus 10 / minus 10 degrees
Operating temperature	Class: laboratory 0 C to 40 C class
Return loss	S11: greater than 10 dB from 10 MHz to 6 GHz

U9391F Specifications

PARAMETER	VALUE
Agilent Keysight U9391F Comb Generator 10 MHz to 50 GHz	Overview
Technical Specifications	Model: U9391F
Notes	Numeric rows from Agilent/Keysight U9391C/F/G comb generator technical overview and user manual specification table for U9391F.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: laboratory 0 C to 40 C class
Operating Temperature	Class: laboratory 0 C to 40 C class
Operating Temperature Class	laboratory 0 C to 40 C class
Phase Flatness 10 MHz to 28 GHz	plus 10 / minus 10 degrees Notes Numeric rows from Agilent/Keysight U9391C/F/G comb generator technical overview and user manual specification table for U9391F.

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	U9391F
Instrument Type	microwave comb generator
Output Frequency Range	10 MHz to 50 GHz
Input Frequency Range	10 MHz to 6 GHz
Input Power Range	minus 15 to plus 15 dBm
Minimum Output Power Per Picket	minus 95 dBm at 10 MHz input PRF
Amplitude Flatness Versus Output Frequency	less than 25 dB at 10 MHz input PRF
Amplitude Flatness Versus Input Power Typical	0.5 dB
Pulse Width	less than 23 ps
Divide Ratio	1 2 4 8 16
Input Return Loss S11	greater than 10 dB from 10 MHz to 6 GHz
Output Return Loss S22 10 MHz to 20 GHz: greater than 10 dB	
Output Return Loss S22 20 GHz to 45 GHz: greater than 7 dB	
Output Return Loss S22 45 GHz to 50 GHz: greater than 5 dB	
Specifications	
PARAMETER	VALUE
Drive Supply Voltage	plus 15 Vdc plus or minus 10 percent
Drive Supply Current Nominal	300 mA
Control Interface	USB
Minimum Tone Spacing	10 MHz
Form Factor	compact RF module
Series Family	Keysight U9391
Related Models	U9391C U9391G U9391M
Operating Temperature Class	laboratory 0 C to 40 C class
Phase Flatness 10 MHz to 28 GHz	plus 10 / minus 10 degrees

Notes

Numeric rows from Agilent/Keysight U9391C/F/G comb generator technical overview and user manual specification table for U9391F.

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

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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.