

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8901B

The Keysight (Agilent HP) 8901B is a high-performance Modulation Analyzer designed for complete and accurate characterization of modulated RF signals in the 150 kHz to 1300 MHz frequency range. Combining the functions of a modulation meter, frequency counter, RF power meter, and audio analyzer, it provides high-precision measurements of AM, FM, and PM, along with recovery of demodulated audio signals.

SPECIFICATIONS

General

Interfaces	GPIB (HP-IB) standard
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Physical

Power Supply	100 / 120 / 220 / 240 VAC (+5%, -10%), 48 to 66 Hz, 200 VA maximum
Operating Temperature	0 to 55 °C °C

RF Input

Frequency Range	150 kHz to 1300 MHz
Input Impedance	50 Ω nominal
Tuning Mode	Automatic or Manual

Amplitude Modulation

AM Carrier Frequency Range	150 kHz to 1300 MHz
AM Rate Range	20 Hz to 100 kHz
AM Depth Range	0 to 99%

Frequency Modulation

FM Carrier Frequency Range	150 kHz to 1300 MHz
FM Rate Range	20 Hz to 200 kHz
FM Deviation Range	up to 400 kHz

Phase Modulation

PM Carrier Frequency Range	10 MHz to 1300 MHz
PM Rate Range	200 Hz to 20 kHz
PM Deviation Range	up to 400 radians

RF Frequency Counter

Counter Frequency Range	150 kHz to 1300 MHz
Counter Accuracy	$\pm$ (Time Base Accuracy + 1 count)
Internal Time Base Frequency	10 MHz

RF Level & Power

RF Power Sensor Compatibility	HP 8480 series power sensors
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Audio Filters & Demodulated Outputs

High-Pass Filters	50 Hz and 300 Hz
Low-Pass Filters	3 kHz, 15 kHz, and >20 kHz
De-emphasis Filters Selection	25 μ s, 50 μ s, 75 μ s, and 750 μ s
Demodulated Output Impedance	600 Ω nominal

Audio Distortion & Frequency Counter

Audio Distortion Measurement Frequencies	400 Hz and 1 kHz ($\pm$ 5% frequency tolerance)
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Options & Upgrades

Adjacent Channel Power Option	Supported with Options 030 through 037
Carrier Noise Measurement Option	Supported with Options 030 through 037

Inputs & Outputs

RF Input Connector	Type-N female
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Hardware Options

Option 001	Rear-panel connectors instead of front-panel
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Options

Option 010	Adds CCITT Weighting Filter
Option 011	Adds CCIR Weighting Filter
Option 032	12.5 kHz Channel Spacing Adjacent Channel Power Filter
Option 033	25.0 kHz Channel Spacing Adjacent Channel Power Filter
Option 035	30.0 kHz Channel Spacing Adjacent Channel Power Filter
Option 037	Adds Carrier Noise Filter

Performance

Detector Types	Peak+, Peak-, Peak-Hold, Average (RMS Calibrated)
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TECHNOLOGY

Analog modulation analysis with power sensor compatibility

APPLICATIONS

RF transmitter testing, modulation analysis, and signal monitoring

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.