

SWR AUTOTESTERS

97 Series and 560-97, 560-98 Series 10 MHz to 50 GHz



97A50



560-97N50-1

The Series 97, 560-97 and 560-98 SWR Autotesters integrate a high directivity bridge, a detector, a low reflection test port, and a precision reference termination. The 560-97 and -98 Series units are broadband microwave measurement components that are used with the Model 56100A Scalar Network Analyzer and with Series 54100A Scalar Measurement System for making fixed-frequency and swept-frequency return loss (SWR) measurements. Return loss measurements are used over a wide range of radio and microwave frequencies to check the performance of systems, subsystems, and microwave components such as amplifiers, directional couplers, attenuators, filters, splitters, and terminations.

560-97, 98 Series SWR autotester features

- Up to 40 dB directivity
- 10 MHz to 50 GHz range
- Test port connectors to fit most measurement applications; avoids use of adapters

97 Series SWR autotester features

- High 40 dB directivity
- Low test port reflections
- Broadband 10 MHz to 18 GHz frequency range
- Small package including bridges, termination, and detector
- Selection of GPC-7, WSMA, or Type N test port connectors

Specifications

Models	Directivity (dB)	Accuracy ^①		Frequency Sensitivity (dB)	Test Port Connection	Physical	
97 Series SWR Autotesters, 10 MHz to 18 GHz ^②							
97A50	36	10 MHz-8 GHz	8-18 GHz	±1.5 max.	GPC-7	Dimensions ^③ 7.6 x 5 x 2.8 cm plus connectors Weight: 340 g	
		0.016 ±0.06ρ ²	0.016 ±0.10ρ ²				
560-97 Series SWR Autotesters, 10 MHz to 18 GHz ^②							
560-97N50-1 560-97NF50-1	38	0.013 ±0.08ρ ²	0.013 ±0.12ρ ²	±1.5	Type N (m) Type N (f)		

① Where ρ is the reflection coefficient being measured. Accuracy includes the effects of test port reflections and directivity.

② Input Connector: Type N Female

③ Plus connectors and cable

Temperature range: +25°C ±5°C

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97 Series and 560-97, 560-98 Series 10 MHz to 50 GHz

Models	Directivity (dB)	Accuracy ^①	Frequency	Freq. Sensitivity (dB)	Test Port Connection	Physical
560-98 Series SWR Autotesters, 10 MHz to 40 GHz ^②						
560-98K50 560-98KF50	35 32 30	0.018 ±0.07ρ ² 0.026 ±0.15ρ ² 0.032 ±0.18ρ ²	10 MHz – 18 GHz 18 MHz – 26.5 GHz 26.5 MHz – 40 GHz	±3.0	Type K (m) Type K (f)	Dimensions ^③ : 1.9 x 3.8 x 5.4 cm Weight: 198 g

All Models:

Input Port Impedance: 50Ω

Insertion Loss (from input to test port): 6.5 dB nominal

Detector Output Polarity: Negative

Output Time Constant: 2 ms

Maximum Power Input: 0.5 watts (+27 dBm)

Cable Length: 122 cm (4 ft.)

① Where ρ is the reflection coefficient being measured. Accuracy includes the effects of test port reflections and directivity.

② Input Connector: Ruggedized Type K Female

③ Plus connectors and cable

Ordering information

Please specify model/order number, name, and quantity when ordering.

Model/Order No.	Name
	SWR Autotester
97A50	10 MHz to 18 GHz, GPC-7, 36 dB directivity
560-97N50-1	10 MHz to 18 GHz, N(m), 50 Ω, 38 dB directivity
560-97NF50-1	10 MHz to 18 GHz, N(f), 50 Ω, 38 dB directivity

Model/Order No.	Name
	SWR Autotester
560-98K50	10 MHz-40 GHz, K(m), 50 Ω, directivity = 35 dB (<18 GHz), 32 dB (18 to 26.5 GHz), 30 dB (26.5 GHz)
560-98KF50	10 MHz-40 GHz, K(f), 50 Ω, directivity = 35 dB (<18 GHz), 32 dB (18 to 26.5 GHz), 30 dB (26.5 GHz)