

Table 1-2. SWR Autotesters, Specifications

MODEL	FREQUENCY RANGE	DIR. (dB)	ACCURACY ^②	INPUT Z (ohms)	TEST PORT CONNECTOR TYPE	PHYSICAL
SERIES 63 SWR AUTOTESTERS						
63N50 63NF50 63A50	10 to 4000 MHz	40 ^①	$0.01 \pm 0.06\rho^2$	50	Type N Male Type N Female GPC-7	Dimensions: 6.7 x 5.1 x 2.54 cm (2 5/8 x 2 x 1 inches) excluding connectors Weight: 340 grams (12 ounces)
SERIES 67 SWR AUTOTESTERS						
67N50 67NF50 67B50 67BF50 67N75 67NF75 67B75 67BF75 67FF75	10 to 1000 MHz	40	$0.01 \pm 0.1\rho^2$	50 50 50 50 75 75 75 75 75	Type N Male Type N Female BNC Male BNC Female Type N Male Type N Female ^③ BNC Male BNC Female Type F Female	Dimensions: 6.7 x 5.1 x 2.54 cm (2 5/8 x 2 x 1 inches) excluding connectors Weight: 170 grams (6 ounces)
SERIES 59 COMPARISON SWR AUTOTESTER						
59A50	10 MHz to 18 GHz	36	$\frac{10 \text{ MHz} - 8 \text{ GHz}}{0.016 \pm 0.06\rho^2}$ $\frac{8 \text{ GHz} - 18 \text{ GHz}}{0.016 \pm 0.1\rho^2}$ ^④	50	GPC-7 on Test and Reference Ports	Dimensions: 7.6 x 5 x 2.8 cm (3 x 2 x 1 1/8 inches) excluding connectors Weight: 340 grams (12 ounces)
SERIES 97 SWR AUTOTESTERS						
97A50 97A50-1 97S50 97SF50 97S50-1 97SF50-1 97N50 97NF50 97N50-1 97NF50-1	10 MHz to 18 GHz	36 40 35 38 35 38	$\frac{10 \text{ MHz} - 8 \text{ GHz}}{0.016 \pm 0.06\rho^2}$ $\frac{8 \text{ GHz} - 18 \text{ GHz}}{0.016 \pm 0.1\rho^2}$ $0.018 \pm 0.08\rho^2$ $0.018 \pm 0.12\rho^2$ $0.013 \pm 0.08\rho^2$ $0.013 \pm 0.12\rho^2$ $0.018 \pm 0.08\rho^2$ $0.018 \pm 0.12\rho^2$ $0.013 \pm 0.08\rho^2$ $0.013 \pm 0.12\rho^2$	50	GPC-7 GPC-7 WSMA Male WSMA Female WSMA Male WSMA Female Type N Male Type N Female Type N Male Type N Female	Dimensions: 7.6 x 5 x 2.8 cm (3 x 2 x 1 1/8 inches) excluding connectors Weight: 340 grams (12 ounces)
ALL MODELS						
Insertion Loss (from input to test port): 6.5 dB nominal Detector Output Polarity: Negative Output Time Constant: 2 μ s Maximum Power Input: 0.5 watts Input Connector: Type N Female except 67B and 67F Series which have BNC Female. Detected Output Connector: BNC Female						

① 46 dB directivity available as Option 1. Option 1 accuracy: $0.005 \pm 0.06\rho^2$.

② Where ρ is the reflection coefficient being measured. Accuracy includes the effects of test port reflections and directivity.

③ 75 Ω Type N Female connectors will withstand occasional mating with 50 Ω connectors without damage.

④ When used with 28A50-1 Precision Termination. The effective directivity of the bridge can be increased to 60 dB by using the magnified reflection return loss measurement technique with the 18A50 Air Line and 29A50-20 Offset Termination.

Table 1-3. SWR Bridges, Specifications

MODEL	FREQUENCY RANGE	DIR. (dB)	ACCURACY ^②	INPUT Z (ohms)	TEST PORT CONNECTOR TYPE	PHYSICAL
SERIES 60 SWR BRIDGES						
60N50 60NF50 60A50	5 MHz to 2 GHz	40 ^①	$0.01 \pm 0.09\rho^2$	50	Type N Male Type N Female GPC-7	Dimensions: 6.7 x 5.1 x 2.54 cm (2 5/8 x 2 x 1 inches) excluding connectors Weight: 340 grams (12 ounces)
SERIES 62 SWR BRIDGES						
62N50 62NF50 62B50 62BF50 62N75 62NF75 62B75 62BF75 62FF75	10 to 1000 MHz	40	$0.1 \pm 0.12\rho^2$	50 50 50 50 75 75 75 75 75	Type N Male Type N Female BNC Male BNC Female Type N Male Type N Female ^③ BNC Male BNC Female Type F Female	Dimensions: 5.7 x 3.5 x 2.86 cm (2 1/4 x 1 3/8 x 1 1/8 inches) excluding connectors Weight: 170 grams (6 ounces)
SERIES 87 SWR BRIDGE						
87A50	2.0 to 18.0 GHz	35 ^④	2 to 3 GHz: $0.18 \pm 0.31\rho^2$ 3 to 4 GHz: $0.18 \pm 0.2\rho^2$ 4 to 18 GHz: $0.18 \pm 0.12\rho^2$	50	GPC-7	Dimensions: 7.3 x 5.1 x 2.86 cm (2 5/8 x 2 x 1 1/8 inches) excluding connectors Weight: 340 grams (12 ounces)
SERIES 64 SWR BRIDGE						
64A50	3 GHz to 8 GHz ^⑤	36 ^⑥	$0.016 \pm 0.12\rho^2$	50	GPC-7	Dimensions: 7.3 x 5.1 x 2.86 cm (2 7/8 x 2 x 1 1/8 inches) excluding connectors Weight: 284 grams (10 ounces)
SERIES 58A50 COMPARISON SWR BRIDGE						
58A50	2.0 to 18.0 GHz	35	2 to 3 GHz: $0.18 \pm 0.32\rho^2$ ^⑦ 3 to 4 GHz: $0.18 \pm 0.2\rho^2$ 4 to 18 GHz: $0.18 \pm 0.11\rho^2$	50	GPC-7	Dimensions: 6.7 x 5.1 x 2.2 cm (2 5/8 x 2 x 7/8 inches) excluding connectors Weight: 340 grams (12 ounces)
ALL MODELS						
Insertion Loss (from input to test port): 6.5 dB nominal Maximum Power Input: 0.5 watts Input Connector: Type N Female, stainless steel, except 62B and 62F Series which have BNC Female.						

① Option 1 has 46 dB directivity with an accuracy of $0.005 \pm 0.09\rho^2$.

② Where ρ is the reflection coefficient being measured.

③ 75Ω N Female connectors will withstand occasional mating with 50Ω connectors without damage.

④ 38 dB directivity available with Option 1. Option 1 accuracy:
2 to 3 GHz: $0.011 \pm 0.31\rho^2$; 3 to 4 GHz: $0.011 \pm 0.2\rho^2$;
4 to 18 GHz: $0.011 \pm 0.11\rho^2$.

⑤ 2 to 8 GHz frequency range available as Option 2. Option 2 accuracy:
2 to 3 GHz: $0.016 \pm 0.16\rho^2$; 3 to 8 GHz: as specified above.

⑥ 42 dB directivity available as Option 1 (3 to 8 GHz). Accuracy: $0.008 \pm 0.12\rho^2$.

⑦ When used with Model 28A50-1 Termination. Accuracy is even greater when the bridge is used with an 18A50 Air Line and a 29A50-20 Offset in the magnified reflection return loss measurement technique.