

Noise Figure and Gain Test Set

FEATURES

- ❖ Full waveguide band operation
- ❖ Compatible with various noise figure meters
- ❖ Swept measurement capacity
- ❖ Solid-state noise sources offered
- ❖ Compact and rugged package

APPLICATIONS

- ❖ Laboratory test set
- ❖ Wafer probe station
- ❖ Receivers

DESCRIPTION

The **SNG** Series of noise figure and gain test sets are configured to provide automatic noise and gain measurement of amplifiers or receivers in the frequency range of 26.5 to 140 GHz in seven overlapping waveguide bands. These test sets combine high performance broadband solid state noise sources with full waveguide band down converters (**STS** Series) extending the Agilent 8970A/B noise figure meters to the millimeterwave frequency range. A signal generator with output frequencies from 8 to 20 GHz, such as an Agilent 8350B/83550A or 83751B is required by the down converter unit as an LO. A complete system block diagram is shown. The standard models have SMA (F) coaxial connectors for the LO input and IF output ports of the down converters with a standard waveguide for the DUT (Device Under Test) RF input port.

SPECIFICATIONS

Model Number	Freq. Range (GHz)	Input Freq. (GHz)	Input Power (dBm)	ENR (dB)	Dynamic Range (NF/ Gain, dB)	Output Waveguide	Bias (V/mA)
SNG-28-01	26.5 – 40.0	13.25 - 20.0	10.0	15.0	NF: 0 to 20 Gain: -20 to +30	WR-28	+8 / 250
SNG-22-01	33.0 - 50.0	11.00-16.67	10.0	14.0		WR-22	+8 / 250
SNG-19-01	40.0 – 60.0	13.33 – 20.0	10.0	13.0		WR-19	+8 / 350
SNG-15-01	50.0 – 75.0	12.5 – 18.75	10.0	13.0		WR-15	+8 / 350
SNG-12-01	60.0 - 90.0	10.0 - 15.00	10.0	13.0		WR-12	+8 / 500
SNG-10-01	75.0- 110.0	12.5 – 18.33	10.0	12.0		WR-10	+8 / 500
SNG-08-01	90.0 to 140.0	10.0 – 15.56	10.0	12.0		WR-8	+8 / 500

Note: Consult factory for other noise/gain test set configurations.

TECHNICAL NOTATION

The oscilloscope, sweeper and noise figure meter are not part of the standard noise/gain test set offered. The OEM model numbers shown in the block diagram are for reference only. Models other than those shown that have similar functionality, or are from other manufacturers, can also be used.

OUTLINE

Refer to ONS data sheet for noise sources outline.



SNG Series

BLOCK DIAGRAM

