Fairview Microwave
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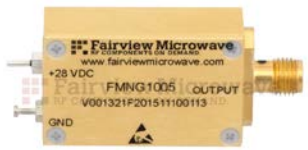
FMNG1005
DATA SHEET

Calibrated Noise Source Module With a Noise Output ENR of 23 dB, and a Voltage of +28 VDC, Operating From 1 GHz to 18 GHz With SMA



FMNG1005 is a coaxial packaged Noise Source module which operates over a wide frequency range from 1 GHz to 18 GHz. The design is calibrated in 1 GHz steps and is ideal for Noise Figure measurements and a variety of built-in test applications. This model operates at +28 Vdc and features a high output ENR level of 23 dB min, typical flatness across the entire frequency band is +/- 2.0 dB, and excellent stability. Performance is specified over -55°C to +85°C with Noise Output Temperature Variation <0.01 dB/°C, Noise Output Variation <0.1 dB/%V. The rugged package design supports an output Female SMA connector with an EMI/RFI filter voltage pin and ground tab. Additionally, the model is designed to meet a variety of demanding MIL-STD-202F environmental test conditions including Humidity, Thermal Shock, and Vibration for added confidence for highly reliable operation.

Features:

- 1 GHz to 18 GHz Bandwidth
- Calibrated Frequencies: 1 GHz steps
- High ENR output: 23 dB min
- Typical Flatness +/- 2.0 dB
- Excellent Stability
- Noise Output Temperature Variation: <0.01 dB/°C
- Noise Output Variation <0.1 dB/%V
- Rugged Package Design supports output Female SMA connector
- Designed to meet MIL-STD-202F environmental test conditions
- Internal Voltage Regulation

Applications:

- Noise Figure Measurements
- Built-In Test equipment for signal strenth calibrators and radar applications
- Automatic Test Equipment (ATE)
- Jamming
- Baseband Signal Simulation
- Additive White Gausian Noise (AWGN) source for Error Rate Measurements
- Increase dynamic range of A/D Converters
- SATCOM for bit error rate (BER) and noise figure
- Can be used as a Jitter source.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1		18	GHz
Impedance		50		Ohms
Output ENR	23			dB
Flatness		±2		dB
VSWR		3:1		
Output Variation vs Input Voltage			0.1	dB/%V
Output Variation vs Temperature			0.01	dB/deg C
Bias Voltage 1	22	28	30	Volts
Input Current 1			25	mA
Calibration Points	1 GHz Steps			

Mechanical Specifications

Size

Length	1.25 in [31.75 mm]
Width/Dia.	0.75 in [19.05 mm]
Height	0.5 in [12.7 mm]
Weight	0.0611 lbs [27.71 g]
Package Type	Connectorized Module

Connectors

DC Connector	Pin
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
Storage Range	-65 to +125 deg C

Environment

Humidity	MIL-STD-202F, Method 103, Cond B (96 hrs@95% R.H.)
Shock	MIL-STD-202F, Method 213, Cond B (100g, 6 msec)

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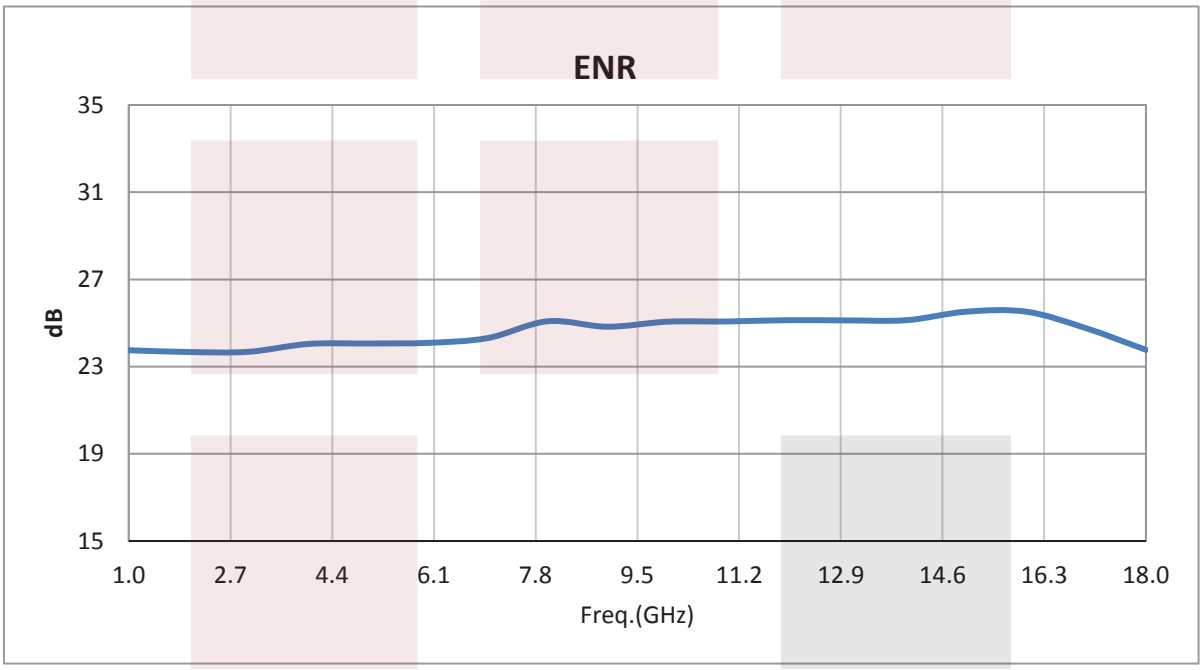
Vibration	MIL-STD-202F,Method 204,Cond B(0.6” 2x ampl or15g)
Altitude	MIL-STD-202F, Method 105, Condition B (50,000 ft)
Temperature Cycle	MIL-STD-202F, Method 105C, Condition D (5 cycles)
Thermal Shock	MIL-STD-202F, Method 107, Conditon A (5 cycles)
ESD Sensitivity	ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.

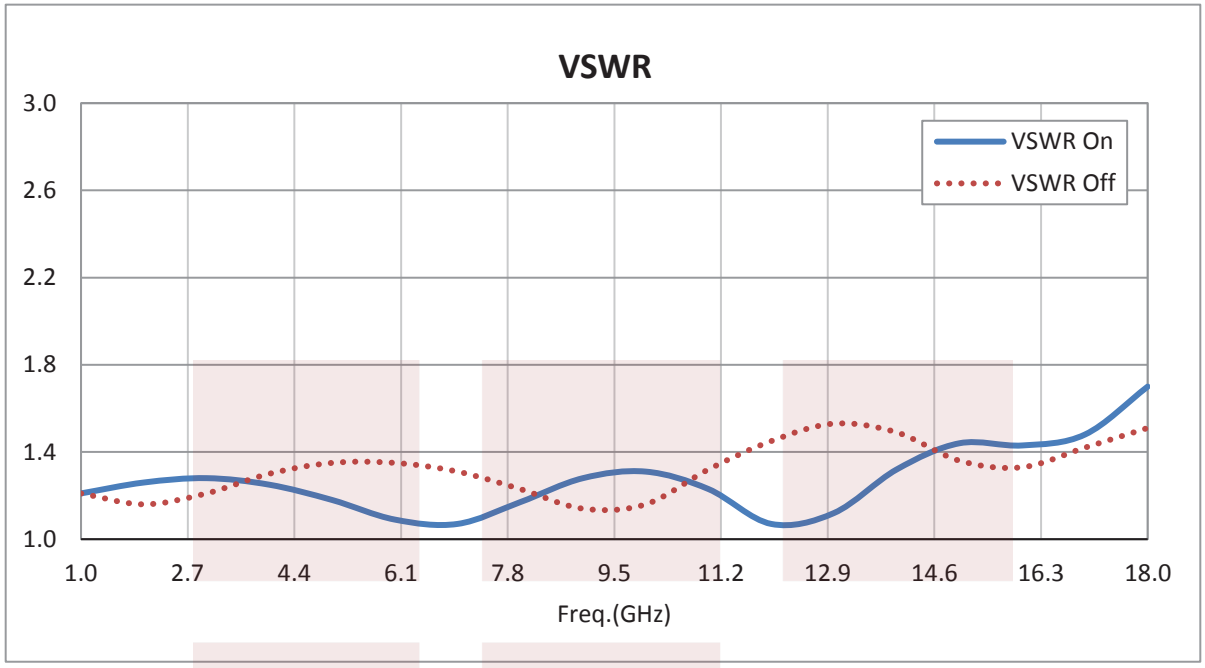
Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Typical Performance Data

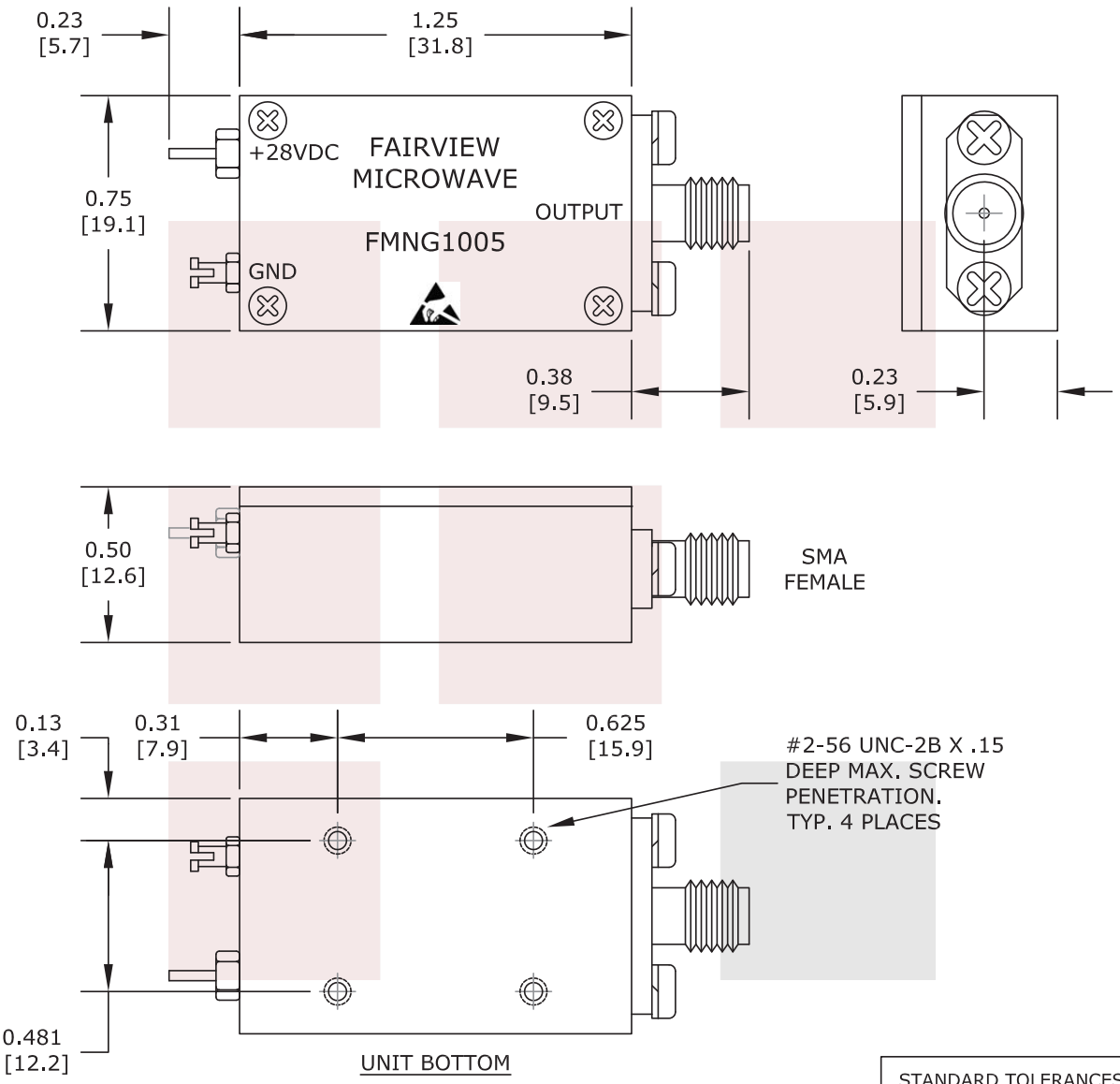




Calibrated Noise Source Module With a Noise Output ENR of 23 dB, and a Voltage of +28 VDC, Operating From 1 GHz to 18 GHz With SMA from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: Calibrated Noise Source Module With a Noise Output ENR of 23 dB, and a Voltage of +28 VDC, Operating From 1 GHz to 18 GHz With SMA FMNG1005

URL: https://www.fairviewmicrowave.com/calibrated-noise-source-enr-23-db-18-ghz-sma-fmng1005-p.aspx



STANDARD TOLERANCES
.X ±0.2
.XX ±0.1
.XXX ±0.05

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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CAD FILE 102716	SHEET	SCALE N/A	SIZE A	2233	