

Calibrated Noise Source Module With a Noise Output ENR of 15 dB, and a Voltage of +28 VDC, Operating From 0.01 MHz to 2 GHz With SMA

FMNG1000 is a coaxial packaged Noise Source module which operates over a wide frequency range from 10 KHz to 2 GHz. The design is calibrated for 10, 100, 1000, and 2000 MHz frequencies and is ideal for Noise Figure measurements and a variety of built-in test applications. This model operates at +28 Vdc and features an ENR level of 15 dB min, typical flatness across the entire frequency band is +/- 0.5 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.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	10KHz		2	GHz
Impedance		50		Ohms
Output ENR	15			dB
Flatness		±1.5		dB
VSWR		1.25:1		
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			20	mA
Calibration Points	10, 100, 1000, and 2000 MHz			

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	0.0605 lbs [27.44 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)



Features:

- 10 KHz to 2000 MHz Bandwidth
- Calibrated Frequencies: 10
- 100
- 1000
- 2000 MHz
- ENR output: 15 dB min
- Typical Flatness +/- 1.5 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 strength calibrators and radar applications
- Automatic Test Equipment (ATE)
- Jamming
- Baseband Signal Simulation
- Additive White Gaussian 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.

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Vibration
Altitude
Temperature Cycle
Thermal Shock
ESD Sensitivity

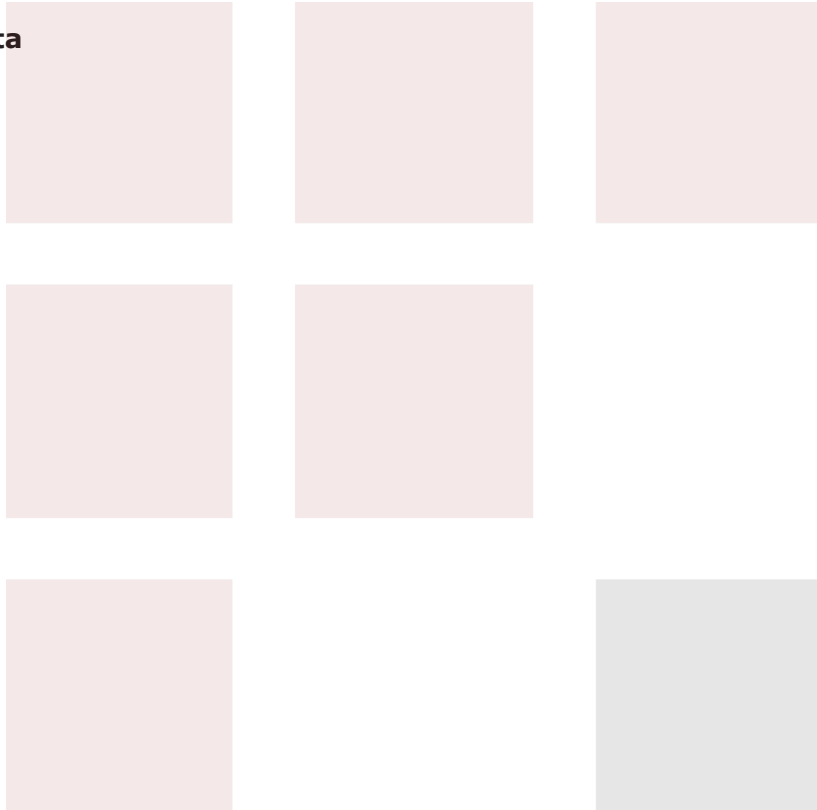
MIL-STD-202F, Method 204, Cond B (0.6" 2x ampl or 15g)
MIL-STD-202F, Method 105, Condition B (50,000 ft)
MIL-STD-202F, Method 105C, Condition D (5 cycles)
MIL-STD-202F, Method 107, Condition A (5 cycles)
ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.



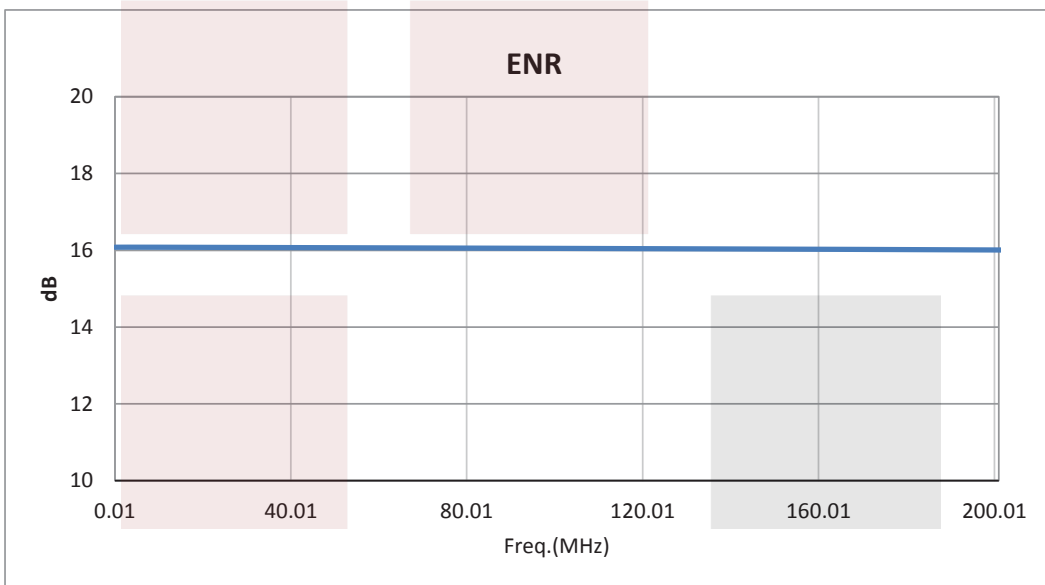
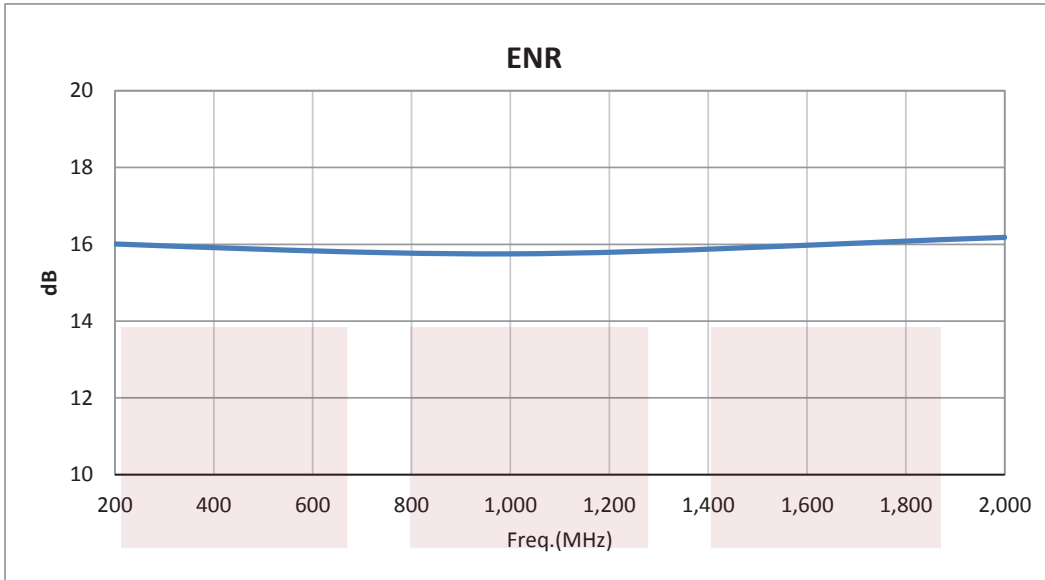
Compliance Certifications (see [product page](#) for current document)

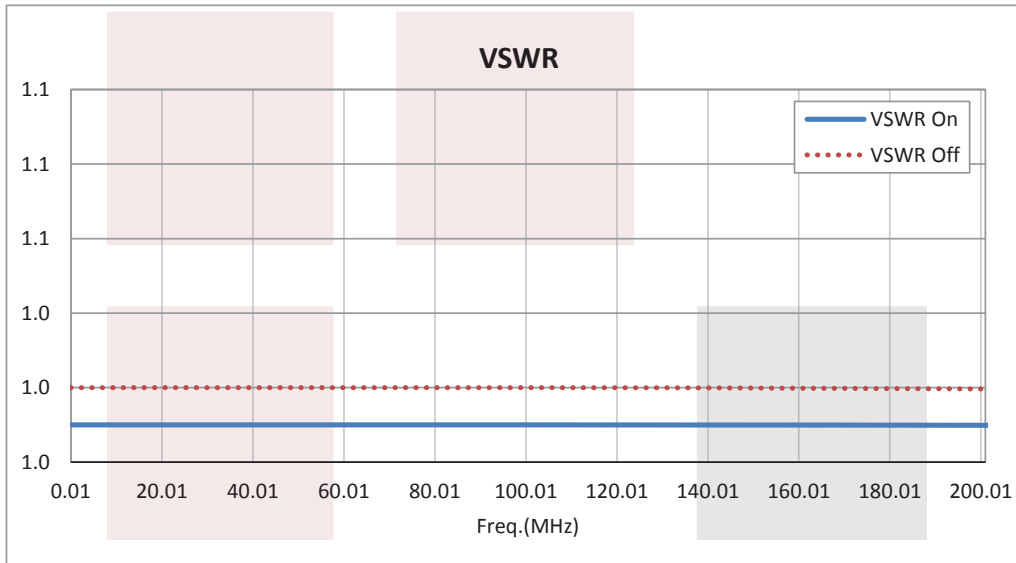
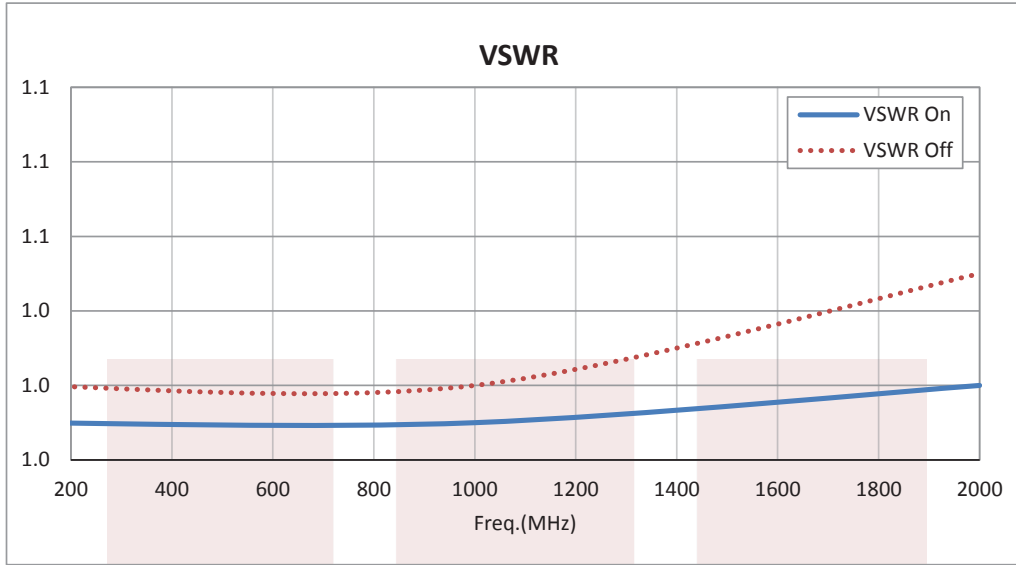
Plotted and Other Data

Notes:



Typical Performance Data



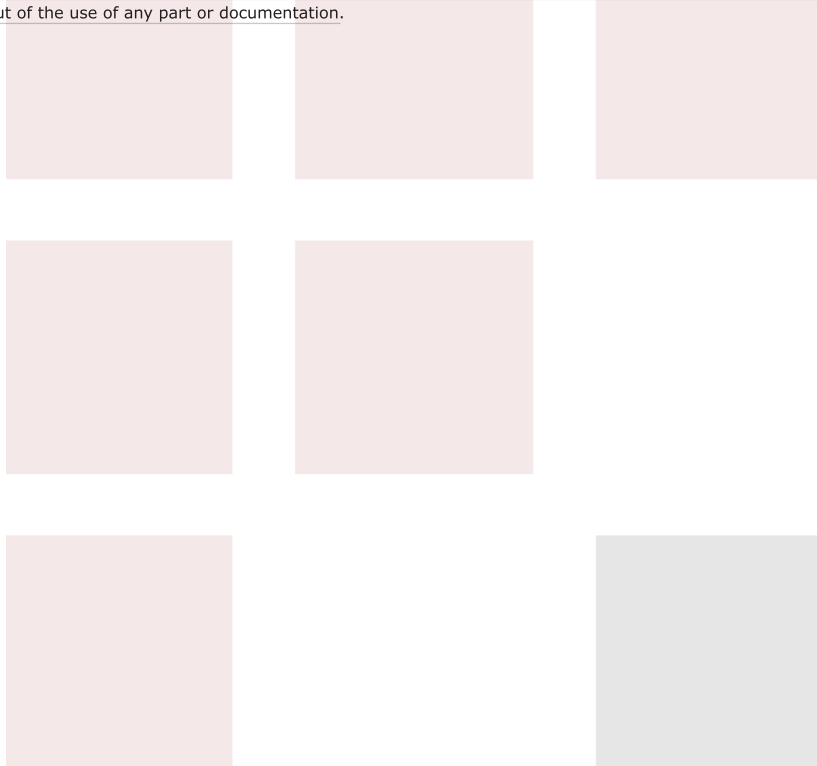


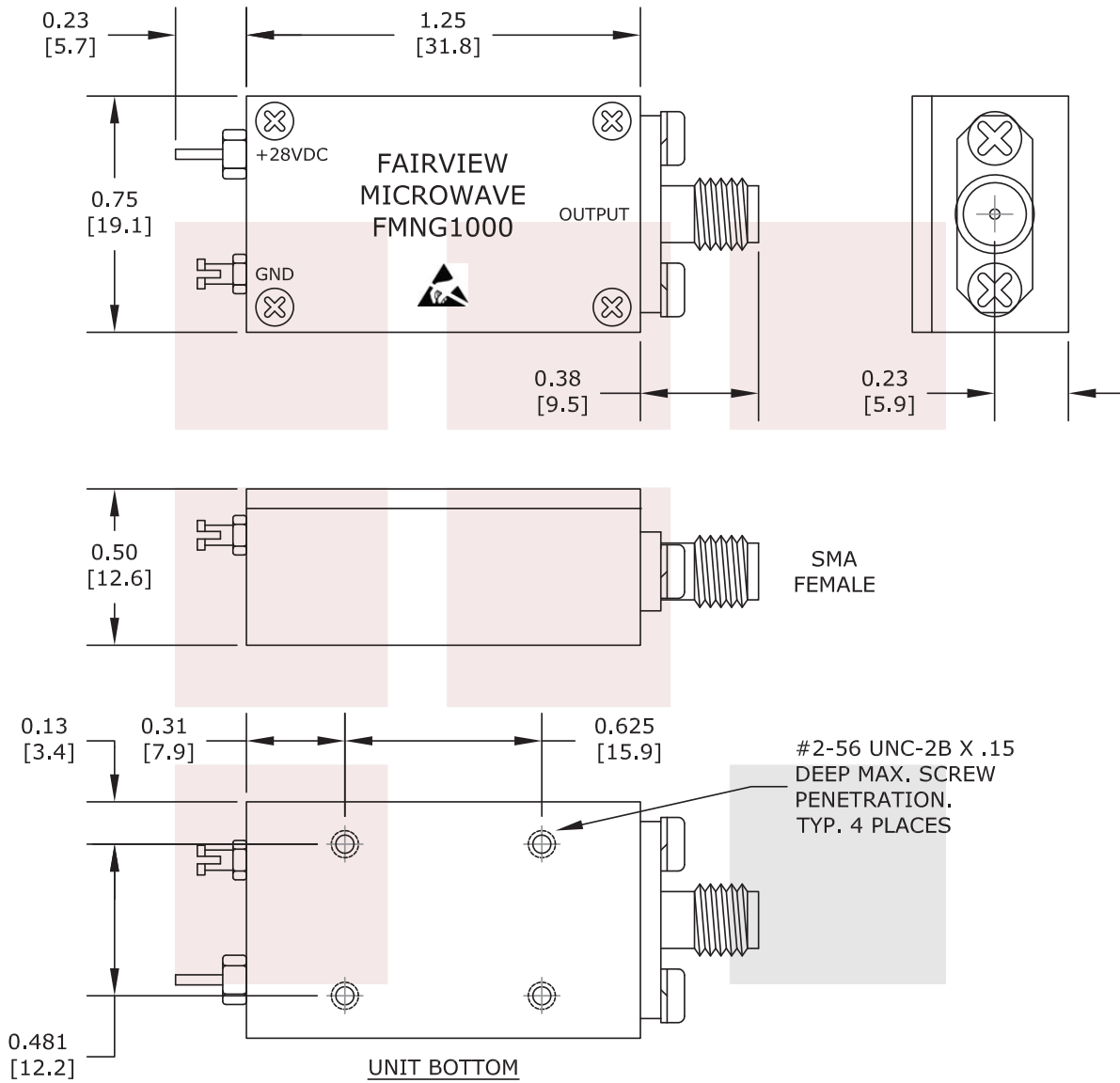
Calibrated Noise Source Module With a Noise Output ENR of 15 dB, and a Voltage of +28 VDC, Operating From 0.01 MHz to 2 GHz With SMA from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part 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 15 dB, and a Voltage of +28 VDC, Operating From 0.01 MHz to 2 GHz With SMA FMNG1000](#)

URL: <https://www.fairviewmicrowave.com/calibrated-noise-source-enr-15-db-2-ghz-sma-fmng1000-p.aspx>

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TITLE Calibrated Noise Source Module With a Noise Output ENR of 15 dB, and a Voltage of +28 VDC, Operating From 0.01 MHz to 2 GHz With SMA		DWG NO FMNG1000		CAGE CODE 3FKR5	
CAD FILE 110415 SHEET		SCALE N/A		SIZE A 2233	