

2.92mm Precision Calibrated Noise Source Module, Output ENR of 10 dB, +28 VDC, 100 MHz to 40 GHz, Calibration Standard

The FMNS1008 is a coaxial packaged calibrated precision Noise Source module which operates over an extremely wide frequency range from 0.1 GHz to 40 GHz. The design features very low VSWR < 1.50:1 that significantly increases measurement accuracy and is ideal for Noise Figure measurements and built-in applications. This model operates at +28 Vdc and features an output ENR level ranging from 10 to 17 dB with 10 MHz calibration points every GHz. Highly stable and accurate performance is specified over -55°C to +85°C with Noise Output Temperature Variation <0.009 dB/°C and Noise Output Variation < 0.002 dB/%V. Maximum Reverse Power is 1 Watt. The rugged industry standard profile package design supports an input Female BNC connector for DC bias and an output Male 2.92mm connector. 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	0.1		40	GHz
Impedance		50		Ohms
Output ENR	10		17	dB
Output Variation vs Input Voltage			0.002	dB/%V
Output Variation vs Temperature			0.009	dB/deg C
Bias Voltage 1		28 ±2		Volts
Input Current 1			30	mA
Reverse Power			1	Watt
Calibration Points	Every GHz			

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.1 to 5	5 to 18	18 to 26	26 to 40		GHz
VSWR, Typ	1.15:1	1.25:1	1.35:1	1.5:1		

Mechanical Specifications

Size	
Length	3.86 in [98.04 mm]
Width/Dia.	1.18 in [29.97 mm]
Height	0.8 in [20.32 mm]
Weight	0.32 lbs [145.15 g]
Package Type	Connectorized Module

Connectors

DC Connector	BNC Female
Output Connector	2.92mm Male



Features:

- 100 MHz to 40 GHz Bandwidth
- Calibrated Frequencies: 1 GHz steps
- ENR output: 10 dB min
- Excellent Stability
- Noise Output Temperature Variation: <0.01 dB/°C
- Noise Output Variation <0.1 dB/%V
- Rugged Package Design supports output Female 2.92mm connector
- Designed to meet MIL-STD-202F environmental test conditions
- Calibrated Precision Noise Source
- VSWR < 1.35:1
- Output Noise ENR 14 dB typical
- Highly Stable and Accurate Performance
- Maximum Reverse Power 1 Watt

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

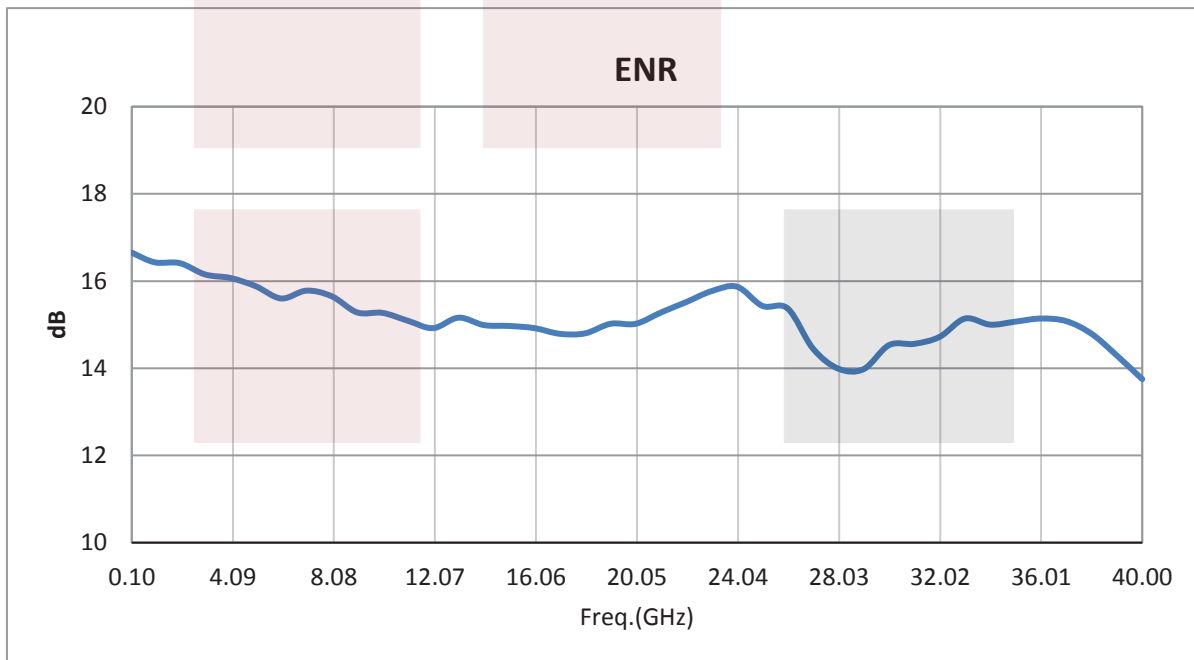


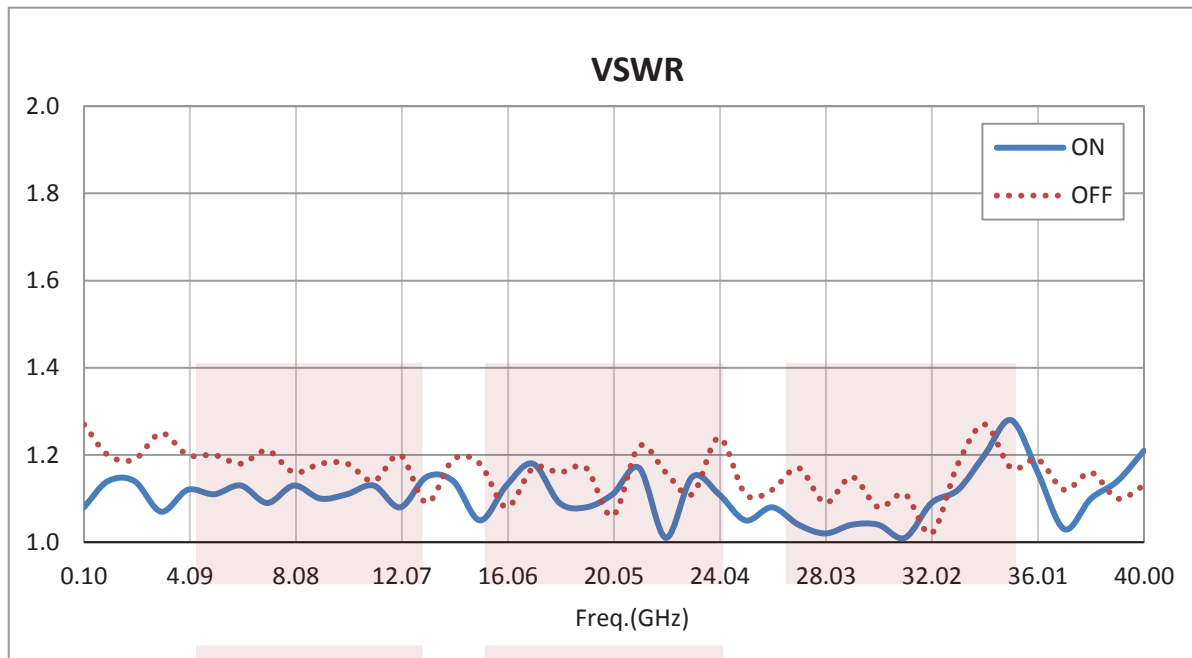
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



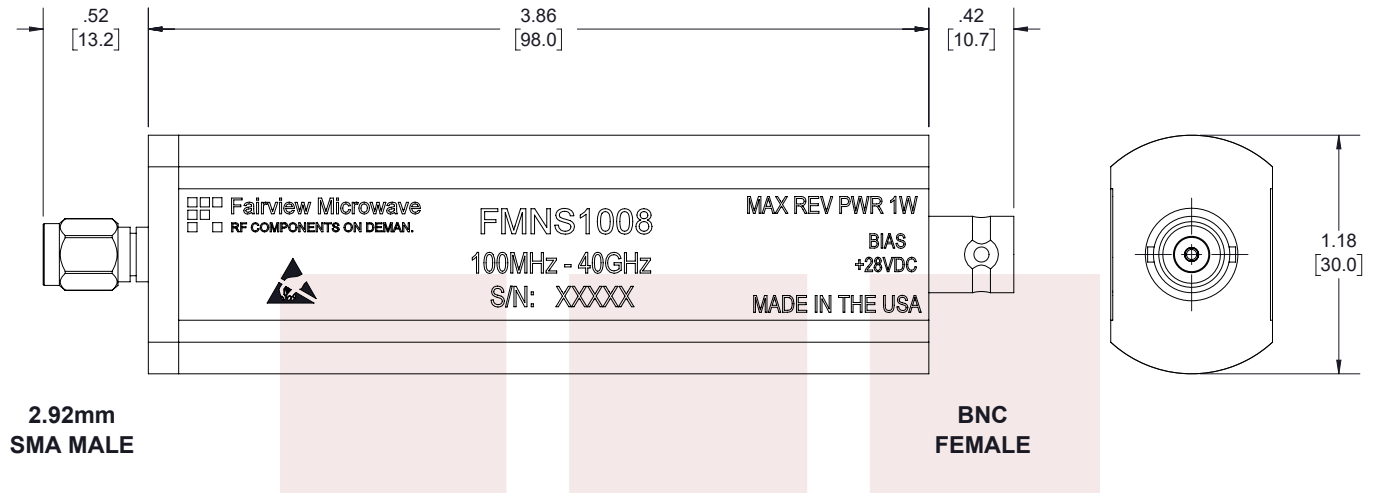


2.92mm Precision Calibrated Noise Source Module, Output ENR of 10 dB, +28 VDC, 100 MHz to 40 GHz, Calibration Standard from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [2.92mm Precision Calibrated Noise Source Module, Output ENR of 10 dB, +28 VDC, 100 MHz to 40 GHz, Calibration Standard FMNS1008](https://www.fairviewmicrowave.com/precision-calibrated-noise-source-enr-10-db-40-ghz-2.92mm-fmns1008-p.aspx)

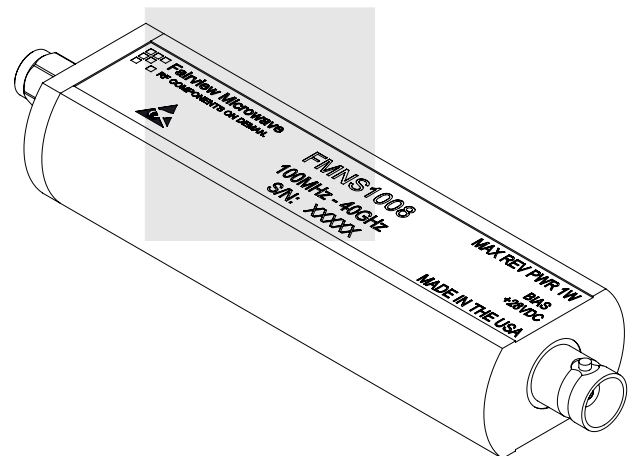
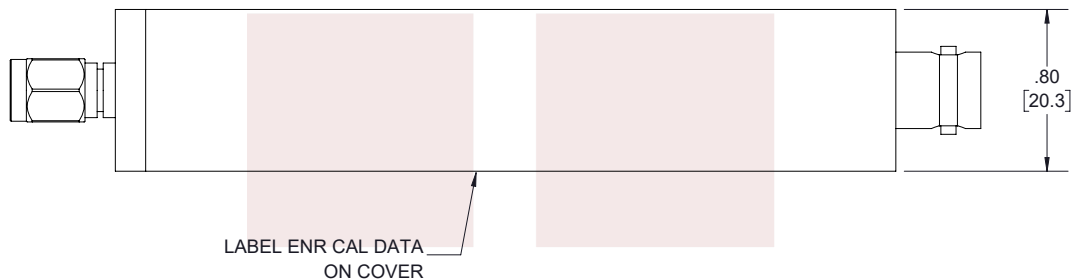
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2.92mm
SMA MALE

BNC
FEMALE



STANDARD TOLERANCES

.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

Fairview Microwave RF COMPONENTS ON DEMAND. <i>Done!</i>		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].					
TITLE 2.92mm Precision Calibrated Noise Source Module, Output ENR of 10 dB, +28 VDC, 100 MHz to 40 GHz, Calibration Standard		DWG NO FMNS1008			CAGE CODE 3FKR5		
		CAD FILE 05/21/18	SHEET 1 OF 1	SCALE N/A	SIZE A	7361	