Fairview Microwave
an INFINITE brand

FMNS1006
DATA SHEET

SMA Precision Calibrated Noise Source Module, Output ENR of 14 dB, +28 VDC, 10 MHz to 18 GHz, Calibration Standard

The FMNS1006 is a coaxial packaged calibrated precision Noise Source module which operates over a wide frequency range from 0.01 GHz to 18 GHz. The design features very low VSWR < 1.25:1 that significantly increases mesurement 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 14 to 16 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 SMA 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.

Features:

- 10 MHz to 18 GHz Bandwidth
- Calibrated Frequencies: 1 GHz steps
- ENR output: 14 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
- Calibrated Precision Noise Source
- VSWR < 1.25:1
- Outupt Noise ENR 15 dB typical
- Highly Stable and Accurate Performance
- Maximum Reverse Power 1 Watt
- 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	0.01		18	GHz
Impedance		50		Ohms
Output ENR	14		16	dB
Flatness		±1.5		dB
Output Variation vs Input Voltage			0.002	dB/%V
Output Variation vs Temperature			0.009	dB/deg C
Bias Voltage 1	22	28 ±2	30	Volts
Input Current 1			30	mA
Reverse Power			1	Watt
Calibration Points	10 MHz, every GHz			

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.01 to 5	5 to 18				GHz
VSWR, Typ	1.15:1	1.25:1				

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	0.3115 lbs [141.29 g]
Package Type	Connectorized Module

Connectors

DC Connector	BNC Female
Output Connector	SMA Male

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Environmental Specifications

Temperature

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

Environment

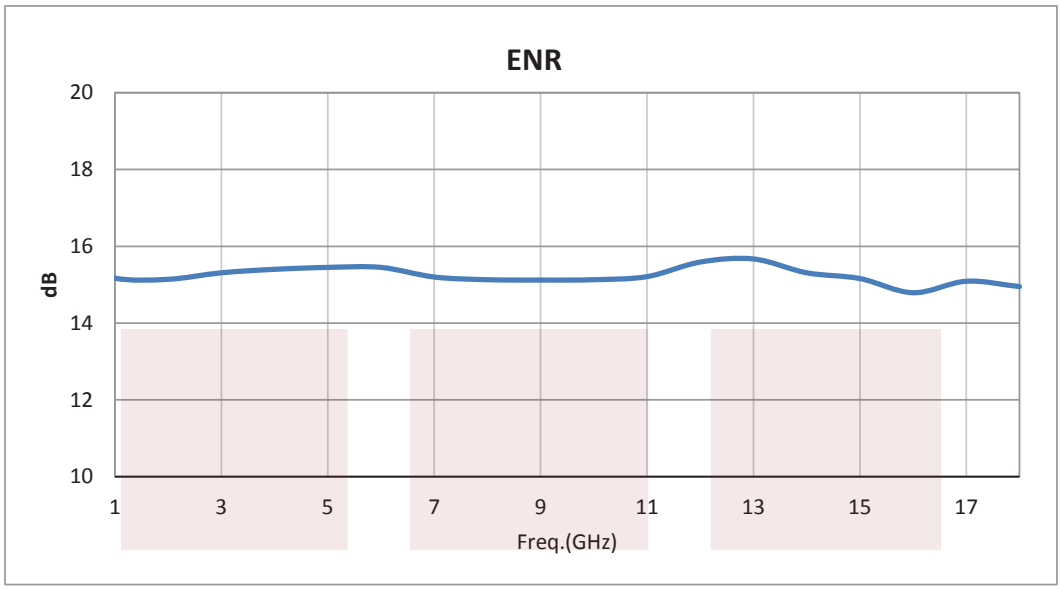
Humidity	MIL-STD-202F, Method 103, Cond B (96 hrs@95% R.H.)
Shock	MIL-STD-202F, Method 213, Cond B (100g, 6 msec)
Vibration	MIL-STD-202F,Method 204,Cond B(0.6" 2x ampl or15g)
Altitude	MIL-STD-202F, Method 105, Condition B (50,000 ft)
Temperature Cycle	MIL-STD-202F, Method 105C, Condition D (5 cycles)
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.

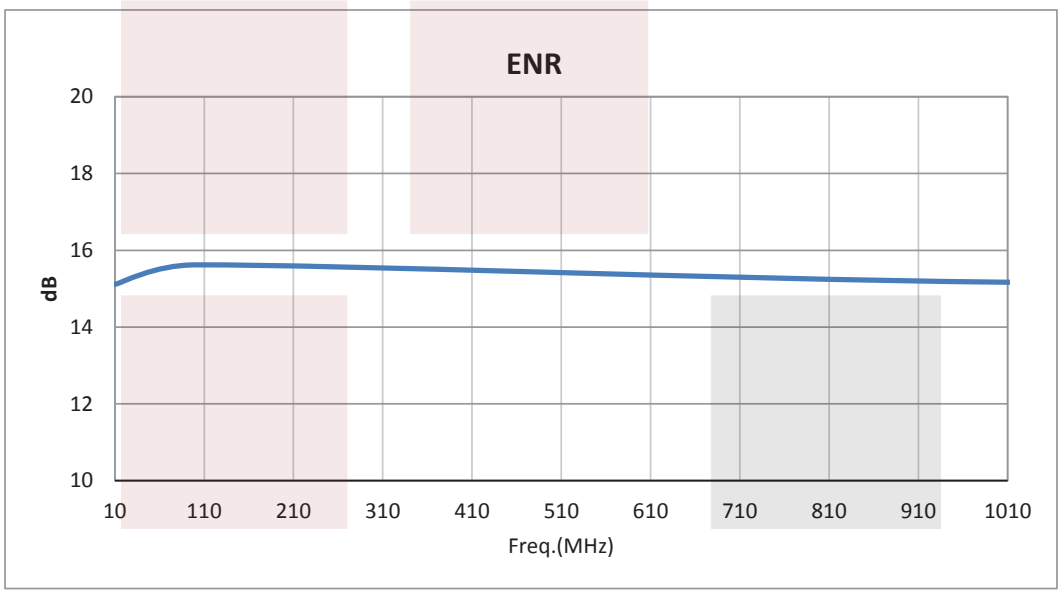
Compliance Certifications (see product page for current document)

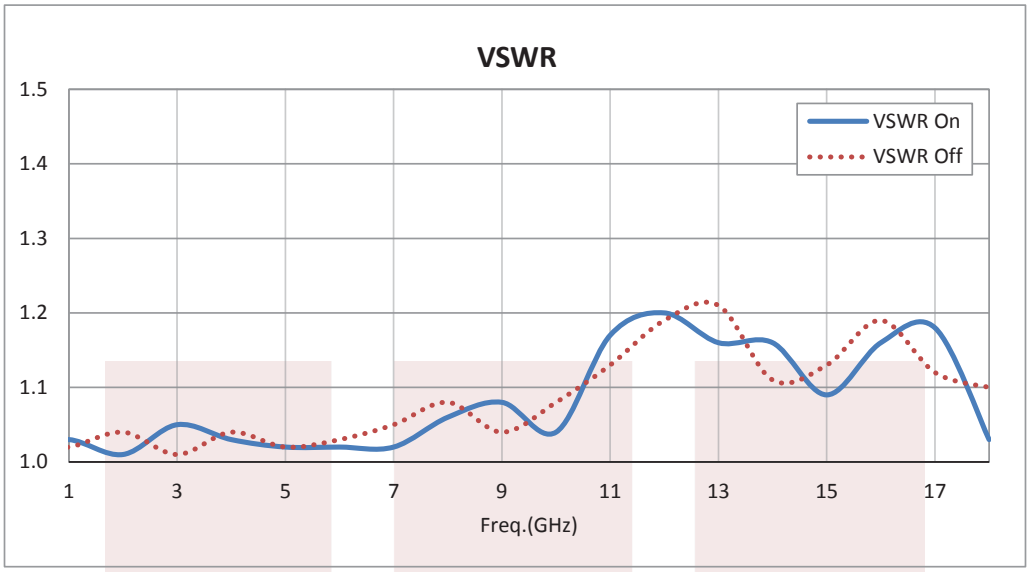
Plotted and Other Data

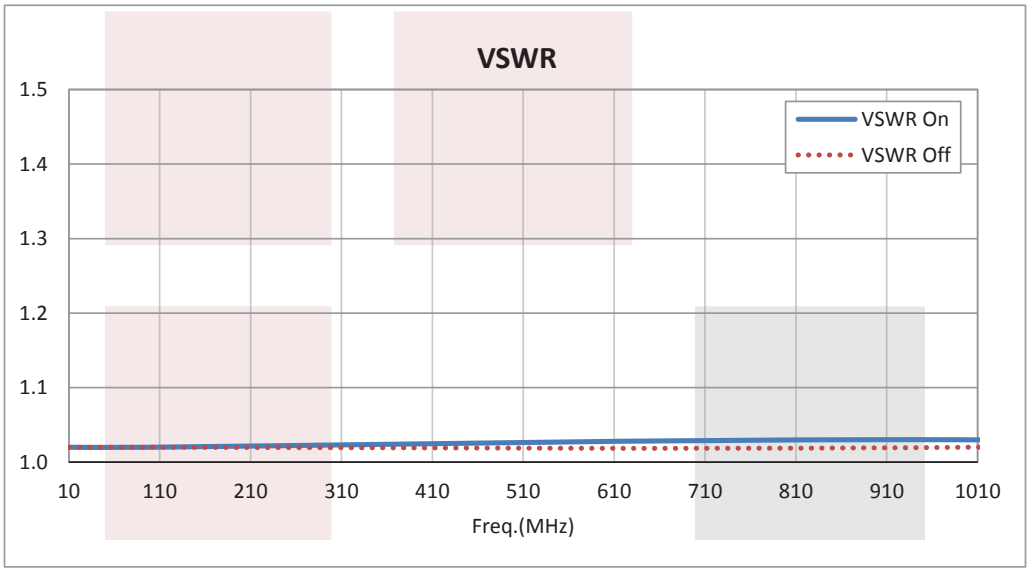
Notes:

Typical Performance Data





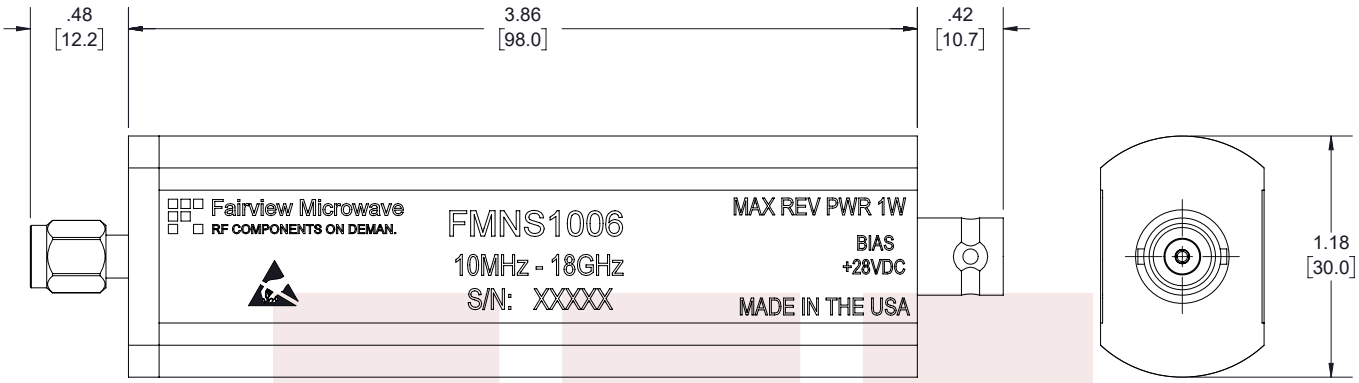


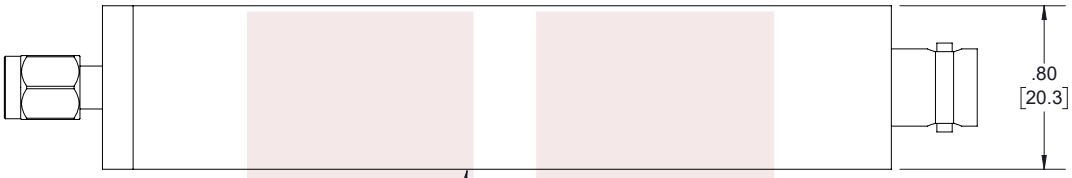


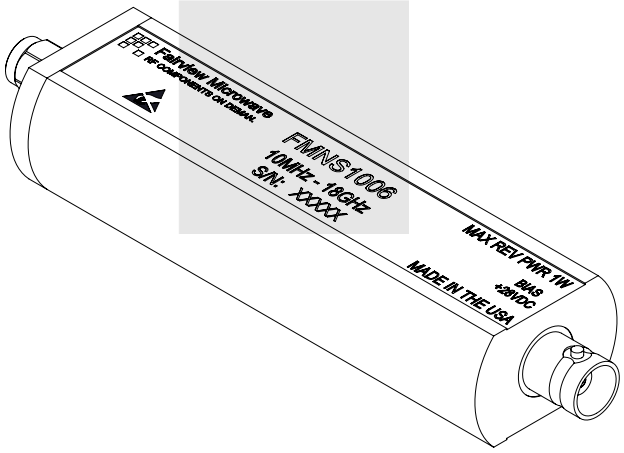
SMA Precision Calibrated Noise Source Module, Output ENR of 14 dB, +28 VDC, 10 MHz to 18 GHz, Calibration Standard from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: SMA Precision Calibrated Noise Source Module, Output ENR of 14 dB, +28 VDC, 10 MHz to 18 GHz, Calibration Standard FMNS1006

URL: https://www.fairviewmicrowave.com/precision-calibrated-noise-source-enr-14-db-18-ghz-sma-fmns1006-p.aspx







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. Done!

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

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DWG NO	CAGE CODE
FMNS1006	3FKR5

CAD FILE	SHEET	SCALE	SIZE	
05/21/18	1 OF 1	N/A	A	7361

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