

10 MHz to 3 GHz DIP Packaged Noise Source Module, Output Pout of -5 dBm, +15 VDC, 24 PIN

The FMNSNS5001 is a dual in-line packaged (DIP) noise source module which operates over a frequency range from 10 MHz to 3 GHz. The industry standard 24 pin DIP package is particularly useful in circuit board applications used for built-in test equipment, dithering for increased dynamic range of A/D converters, and as a source for bit error rate testing. The design utilizes internal filtering to limit bandwidth and operates at +15 Vdc. Noise Output level is -5 dBm with maximum flatness of ± 2 dB. The output White Gaussian Noise has a minimum power level of -100 dBm/Hz and a Crest Factor of 5:1. Operating temperature range is -55°C to $+125^{\circ}\text{C}$ with a temperature coefficient of 0.025 dB/ $^{\circ}\text{C}$.



Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.01		3	GHz
Impedance		50		Ohms
Flatness			± 2	dB
Thermal Sensitivity		0.025		dB/deg C
Output Power		-5		dBm
Noise Power Spectral Density		-100		dBm/Hz
Bias Voltage 1		15		Volts
Input Current 1			100	mA
Crest Factor		5:1		

Mechanical Specifications

Size	
Length	1.38 in [35.05 mm]
Width/Dia.	0.795 in [20.19 mm]
Height	0.7 in [17.78 mm]
Package Type	Drop In
Connectors	
DC Connector	Pin

Environmental Specifications

Temperature	
Operating Range	-55 to $+125^{\circ}\text{C}$
Storage Range	-65 to $+150^{\circ}\text{C}$

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

Plotted and Other Data

Notes:

Features:

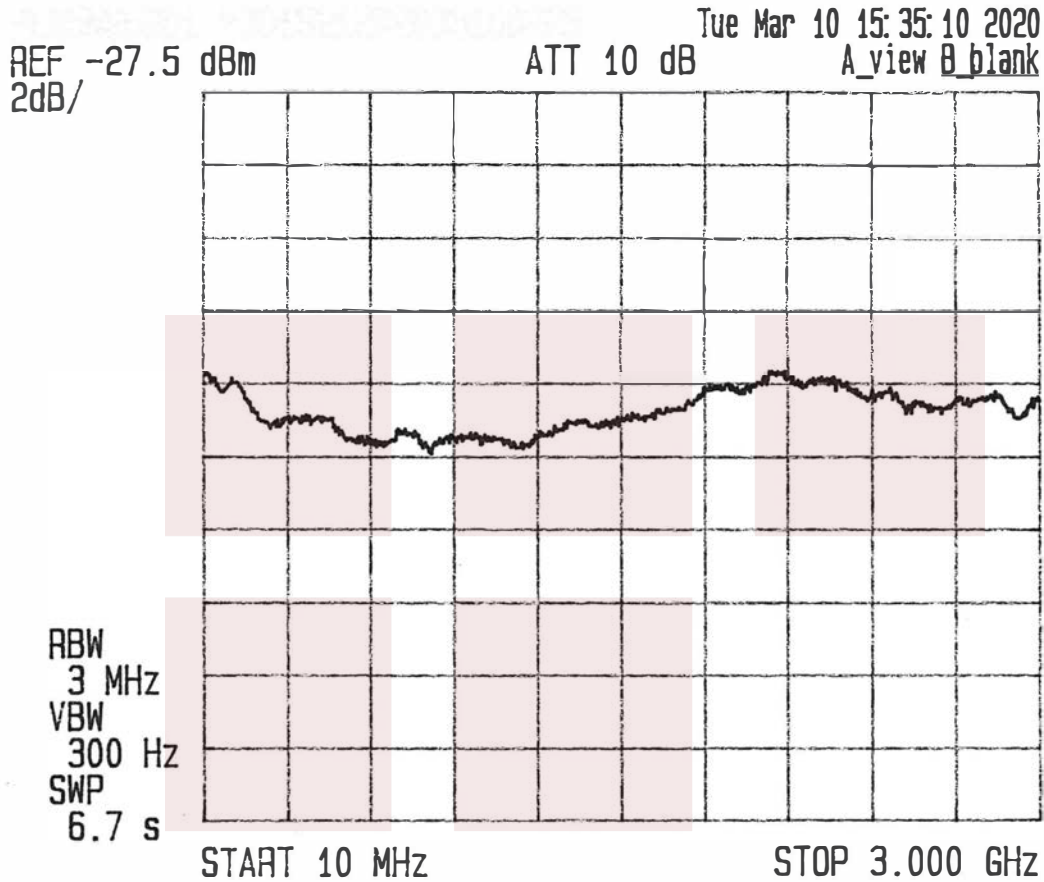
- Industry Standard 24 Pin DIP Packaged Noise Source module
- Frequency Range: 10 MHz to 3000 MHz
- Noise Output Level: -5 dBm
- Internal Filtering to limit bandwidth
- Maximum Flatness: ± 2 dB
- White Gaussian Noise Output
- Minimum power level -100 dBm/Hz
- DC Voltage: +15 Vdc
- -55°C to $+125^{\circ}\text{C}$ Operating Temperature
- Crest Factor: 5:1

Applications:

- Noise Figure Test & Measurement
- Built-In Test Equipment
- Dithering for Increased Dynamic Range for A/D Converters
- Source for Bit Error Rate Testing

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Typical Performance Data



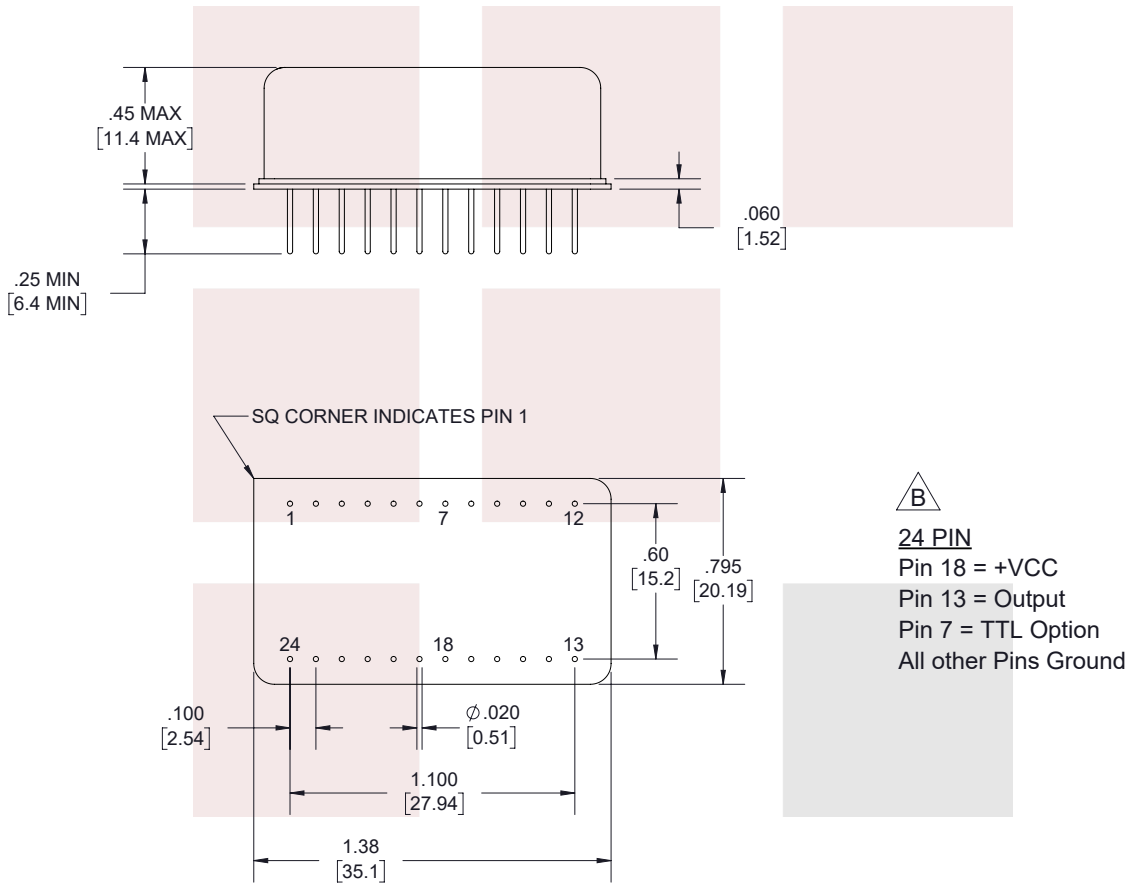
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Click the following link to obtain additional part information: [10 MHz to 3 GHz DIP Packaged Noise Source Module, Output Pout of -5 dBm, +15 VDC, 24 PIN FMNS5001](https://www.fairviewmicrowave.com/noise-source-pout-negative-5-dbm-3-ghz-fmns5001-p.aspx)

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	02/18/2020	TGALLA
B	ADDED PIN DESCRIPTIONS	08/11/2020	TGALLA



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	TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
TITLE 10 MHz to 3 GHz DIP Packaged Noise Source Module, Output Pout of -5 dBm, +15 VDC, 24 PIN	.X = ±.2 [5.08] FRACTIONS .XX = ±.02 [.51] ± 1/32 .XXX = ±.005 [.13] ANGLES ± 1°	L ≤ 12 [305] = +1 [25] / -0 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5%L / -0	THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.	
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SIZE A	CAGE CODE 3FKR5	DRAWN BY DZINN	ITEM NO. FMNS5001	REV B

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