

NMA 2500 SERIES DUAL BIAS NOISE MODULES

10 MHz TO 8.5 GHz 5V AND 12V BIAS

REV6.2006



DESCRIPTION

The NMA 2500 Dual Bias Noise Module is a compact high power noise source ideal for applications in jamming, dithering, built-in test and calibration. The dual bias voltage allows for greater flexibility in system integration and lower power consumption. The NMA 2500 is packaged in a sealed housing for ease of integration into a wide range of military and commercial applications.

NMA 2500 MODULES RF SPECIFICATIONS BY MODEL NUMBER

MODEL	FREQUENCY	NOISE OUTPUT LEVEL			
		FLATNESS * (window)	dBm/BAND (min)	dBm/Hz (min)	ENR(dB) (min)
NMA-2510	10MHz - 1.0GHz	2.0dB	0	-90.0	84.0
NMA-2511	10MHz - 1.5GHz	2.0dB	0	-91.8	82.2
NMA-2512	10MHz - 2.0GHz	3.0dB	0	-93.0	81.0
NMA-2513	10MHz - 4.0GHz	4.0dB	0	-96.0	78.0
NMA-2514	100MHz - 6.0GHz	4.0dB	-3	-100.0	74.0
NMA-2515	30MHz - 3.0GHz	3.0dB	-1	-96.0	78.0
NMA-2516	7.8GHz - 8.5GHz	2.0dB	-11	-100.0	74.0
NMA-2517	2.0GHz - 8.0GHz	4.0dB	-2	-100.0	74.0

* Flatness is defined as the decibel ratio of the highest amplitude peak minus the lowest across the frequency band.

SPECIFICATIONS

- Operating Temperature: -30 to +85°C
- Storage Temperature: -65 to +125°C
- Supply Voltage: Dual Bias +5 / +12 VDC Internally regulated
- Current Draw 350mA max
- Output Impedance: 50 ohm
- Peak Factor: 5:1
specifications subject to change based on technological advances

PERFORMANCE TEST DATA

Each unit ships standard with a spectrum analyzer plot of the noise output.

Upon special request, Micronetics can supply tabular data in text file format on CD-ROM or floppy disk. The data points consist of power spectral density at discrete frequency points across the frequency band.

USEFUL NOISE CONVERSIONS

$$0 \text{ dB ENR} = -174 \text{ dBm/Hz} \quad (\text{equ 1})$$

$$\text{Power (dBm)} = N_0 + 10_{\log}(\text{BW}) \quad (\text{equ 2})$$

where:

$$N_0 = \text{Noise spectral density in dBm/Hz}$$

$$\text{BW} = \text{Bandwidth in Hz}$$

INSTALLATION NOTES

- (1) Should be mounted to a thermally conductive baseplate
- (2) Select style code T for mechanical clearance of mating SMA (m) connector nut with respect to thermally conductive baseplate
- (3) Warning: when using a narrow band filter following the noise module, use a 3 dB or greater pad to prevent damage caused by reflective power.

HOW TO ORDER

NMA-25XX-XX

Option

- 1 = Std
- 2 = TTL*

Package

- S=Pkg Style S
- T=Pkg Style T

* "1" noise on (internal pull-up)
"0" noise off

APPLICATIONS

- Frequency response built-in-test (BIT) for communication receivers
- Antenna/RF front end testing
- 70/140 MHz & L-Band modem BER testing
- Noise and interference simulation
- Jamming / jamming simulation
- Power distribution calibration of multiple receiver systems

MICRONETICS
NOISE PRODUCTS