

# NMA 2400 SERIES NOISE MODULES

## 10 MHz TO 8.5 GHz



### NMA 2400 MODULES RF SPECIFICATIONS BY MODEL NUMBER

MODEL	FREQUENCY	NOISE OUTPUT LEVEL			
		FLATNESS * (window)	dBm/BAND (min)	dBm/Hz (min)	ENR(dB) (min)
NMA-2410	10MHz - 1.0GHz	2.0dB	0	-90.0	84.0
NMA-2411	10MHz - 1.5GHz	2.0dB	0	-91.8	82.2
NMA-2412	10MHz - 2.0GHz	3.0dB	0	-93.0	81.0
NMA-2413	10MHz - 4.0GHz	4.0dB	0	-96.0	78.0
NMA-2414	100MHz - 6.0GHz	4.0dB	-3	-100.0	74.0
NMA-2415	30MHz - 3.0GHz	3.0dB	-1	-96.0	78.0
NMA-2416	7.8GHz - 8.5GHz	2.0dB	-11	-100.0	74.0
NMA-2417	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.

### 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

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

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

where:

$N_0$  = Noise spectral density in dBm/Hz

BW = 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

### DESCRIPTION

The NMA 2400 Noise Module is ideal for applications like jamming and built-in-test where high power and small size are required. The internally regulated driver provides long term highly stable noise output. Optional TTL is available for microprocessor control.

Each NMA 2400 model is designed for easy integration into a wide range of equipment, from test sets to radar units.

### SPECIFICATIONS

- Operating Temperature: -30 to +85°C
- Storage Temperature: -65 to +125°C
- Supply Voltage: +12 / +15 VDC Internally regulated
- Current Draw 350mA max
- Output Impedance: 50 ohm
- Peak Factor: 5:1

*specifications subject to change based on technological advances*

### 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

#### HOW TO ORDER

**NMA-24xx-xxx**

Model #  
(see selection above)

Voltage

A = 15V

B = 12V

Option

1 = Std

2 = TTL \*

Package

S = Pkg Style S

T = Pkg Style T

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

**MICRONETICS**  
NOISE PRODUCTS