

# CNS7106

## COAXIAL AMPLIFIED NOISE SOURCE

available  
from stock

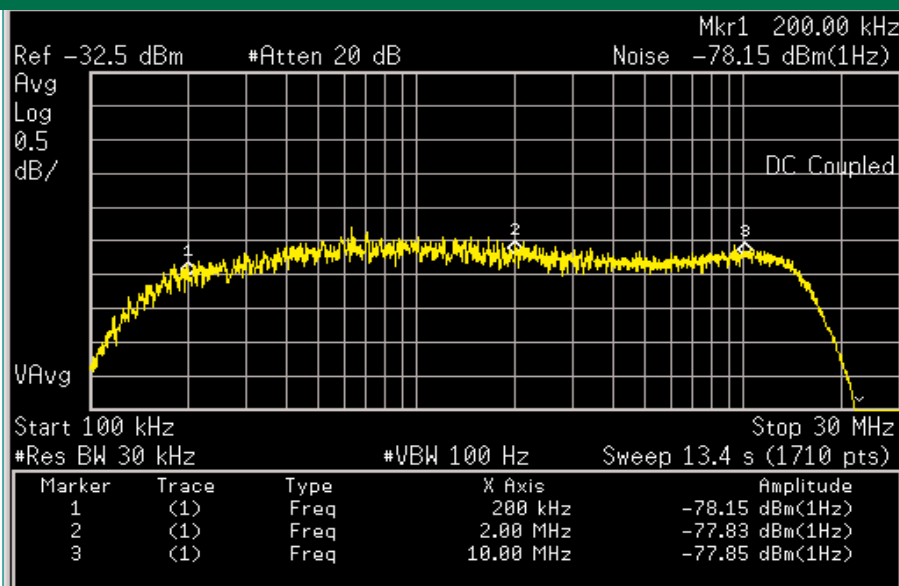
200 kHz TO 12 MHz



### DESCRIPTION

The CNS7106 noise module is designed for a wide range of applications. It features high noise output amplitude for uses ranging from encryption to jamming. All biasing and amplification circuitry is built-in making it easy to design into your system. It features a built-in voltage regulator for highly stable output even if your DC supply lines are not.

### CNS7106 TYPICAL DATA



### SPECIFICATIONS

- Frequency: 200 kHz to 10 MHz
- Noise Power Spectral Density (No): -79 dBm/Hz
- Noise Power (N): -10 dBm
- Spectral Flatness: 1 dB (total window)
- Bias: 12 Vdc, Internally Regulated
- Current Draw: 35 mA Max
- Peak Factor: 5:1
- Operating Temp: -55 to +85 C
- Storage Temp: -55 to 125 C

### APPLICATIONS

#### Common Noise Applications

##### 1. Barrage Jamming:

The noise source is fed into the tuning port of a VCO via a bias tee and a positive DC voltage. The random nature of noise makes the output of the VCO to hop around in a given frequency band randomly making an ideal jamming signal. Further circuitry can be used between the noise source and tuning port to shape the noise probability density function (PDF) for the desired jamming effect.

##### 2. Random Number Generation for Encryption:

Noise sources being truly random (not pseudorandom) give the ultimate in secure communication because of their ability to generate a truly random number pattern. This can be used to seed an encryption key for authentication. The noise signal can be fed directly into an A/D converter for sampling or a simpler techniques might use a comparator. Further shaping of the noise is often employed whether either analog if in front of the A/D converter or afterwards using DSP.

**MICRONETICS**  
NOISE PRODUCTS

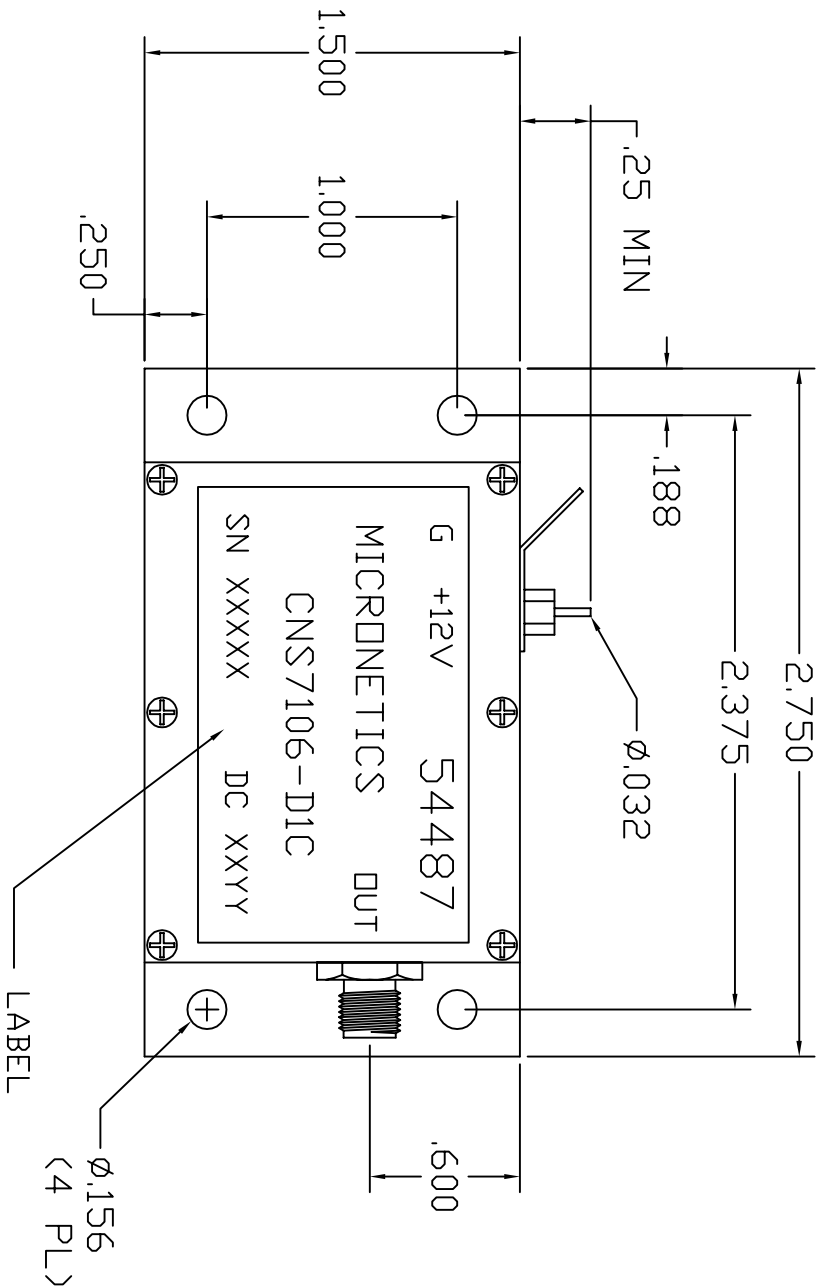
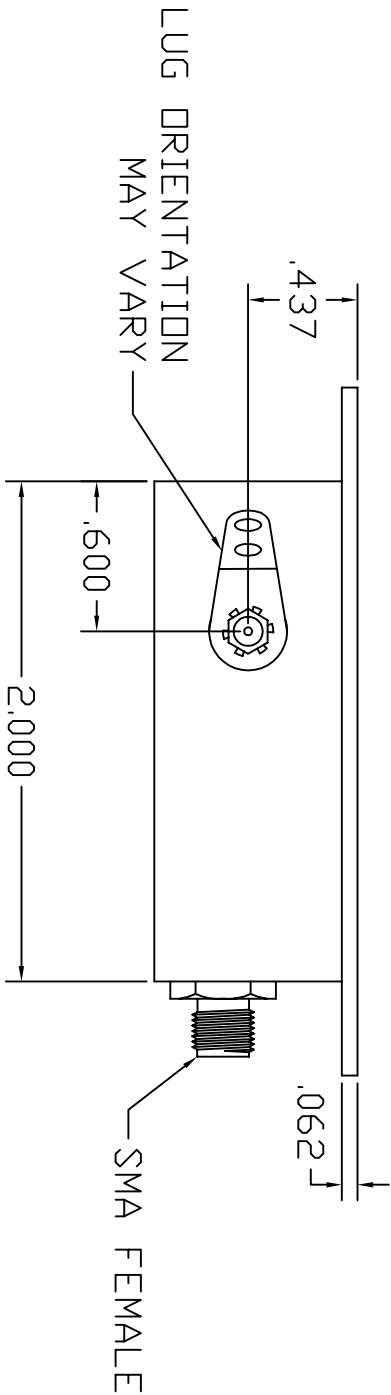
4

3

2

1

REVISIONS					
ZONE	REV.	ECD NO.	DESCRIPTION	DATE	APPROVED
	1		ENGINEERING RELEASE		ENG. Q.C. MFG.



NOTES

1. FINISH: IRRIDITE

A

B

C

D

