Euro-Style Low Noise
NV47AE / NVG47AE, Low Profile
High Stability OCXO

Description:

The N47AE Ovenized Crystal Oscillator Series is designed for VMA slot applications and provides a low noise, ultra-stable frequency reference for base stations, test equipment, synthesizers, and digital switching applications.

Features:

- **Frequencies from 5 to 13 MHz**
- **HCMOS and Sine Wave Output**
- **5 or 12 Volt Supply**
- **Multiple phase noise options**
- **RoHS-6 / Lead-free Compliant**
- **Storage Temperature Range of -55℃ to 125℃**

Voltage Control Range:	N47AE	NV47AE
Turning Range (0V to 4V on Vcontrol)	None	+/- 0.5 ppm min.

Operating Temperature and Frequency Stability:

Temperature Range Code	Operating Temperature	Stability Code ± 5 ppb	Stability Code ± 10 ppb	Stability Code ± 20 ppb	Stability Code ± 30 ppb
A	0 to +50°C	**A**	**B**	**C**	**D**
B	-20 to +70°C	**A**	**B**	**C**	**D**
C	-40 to +85°C	**N/A**	**B**	**C**	**D**

Phase Noise:

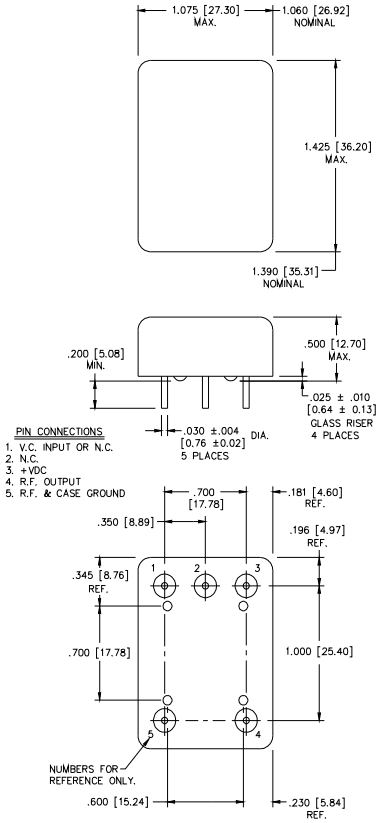
Frequency Offset	Option A HCMOS Output	Option B Sine Wave Output only	Option C Sine Wave Output only
1 Hz	-80 dBc/Hz	-90 dBc/Hz	-95 dBc/Hz
10 Hz	-115 dBc/Hz	-120 dBc/Hz	-125 dBc/Hz
100 Hz	-145 dBc/Hz	-150 dBc/Hz	-155 dBc/Hz
1 KHz	-150 dBc/Hz	-155 dBc/Hz	-160 dBc/Hz
10 KHz	-155 dBc/Hz	-160 dBc/Hz	-165 dBc/Hz
100 KHz	-155 dBc/Hz	-160 dBc/Hz	-165 dBc/Hz

Options “C” not available +5VDC Supply Voltage.

Frequency	Timeframe	Aging
10 MHz	1 Year	Less than +/- 50 ppb

Aging: (typical at 10 MHz after 30 days continuous operation)

Euro-Style Low Noise
NV47AE / NVG47AE, Low Profile
High Stability OCXO



Supply Voltage & Power Consumption:

Supply Voltage	5V +/-5%	12V +/-5%
Power Consumption	3.5W Startup Power 1.5 W Steady State	3.5W Startup Power 1.5 W Steady State
Product Code	**A**	**B**

Output Waveform:

Sine Wave Type A	HCMOS Type B*
8 dBm typ. Output Level	Level "0": 0 to 0.4 V Level "1": 4.5 to 5 V
-30 dBc Harmonics	< 7 nsec Rise/Fall Time
-75 dBc Spurious Response	50 +/- 5% Duty Cycle

*HCMOS Only Available with +5 VDC Supply

Ordering Options:

Model **OCXO**	Temp. Range	Frequency Stability	Phase Noise	Supply Voltage	Output Waveform	Operating Frequency*
N47AE	**A**	**A**	**A**	**A**	**A**	**5M0**
For Leaded Part	**B**	**B**	**B**	**B**	**B**	**To**
NG47AE	**C**	**C**	**C**			**13M0**
For ROHS Part		**D**				

Model **OCVCXO**	Temp. Range	Frequency Stability	Phase Noise	Supply Voltage	Output Waveform	Operating Frequency*
NV47AE	**A**	**A**	**A**	**A**	**A**	**5M0**
For Leaded Part	**B**	**B**	**B**	**B**	**B**	**To**
NVG47AE	**C**	**C**	**C**			**13M0**
For ROHS Part		**D**				

*Trailing Zeros Will Be Omitted In Final Part Number