

# Euro-Style Low Noise High Stability OCXO

## NV47S Series

### Description:

The NVG47S Ovenized Oscillator Series products provide a low noise highly stable frequency reference for base stations, test equipment, synthesizers, and digital switching applications.



### Features:

- Frequency vs. Temperature Stability as Low as +/- 5.0 ppb
- Frequencies from 5 to 13 MHz
- HCMOS and Sine Wave Output
- +5 or +12 VDC Supply
- RoHS-6 / Lead-free Complaint available
- Storage Temperature Range of -55 °C to 125 °C

### 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	0 to +70°C	A	B	C	D
C	-20 to +70°C	A	B	C	D
D	-40 to +85°C	N/A	B	C	D

### Phase Noise:

Frequency Offset	Option A Square Wave	Option B Sine Wave	Option C Sine Wave*
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	-148 dBc/Hz	-152 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

\*Option C not available with +5VDC supply voltage

### Supply Voltage & Power Consumption:

Supply Voltage	5V +/-5%	12V +/-5%
Power Consumption <sup>(1)</sup>	3.5W Startup Power 1.5 Steady State	3.5W Startup Power 1.5 Steady State
Product Code	A	B

1) Start-up Power 4.2Watts typical for temperature range "D".

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## Output Waveform:

HCMOS Type A	Sine Wave Type B
Level "0": 0 to 0.4 V Level "1": 4.5 to 5 V	8 dBm typ. Output Level
< 10 nsec Rise/Fall Time	-30 dBc Harmonics
50 +/- 5% Duty Cycle	-75 dBc Spurious Response

## Pulling Range (Positive Slope):

Tuning Range (0V to 4V on Vcontrol)	None	+/- 0.5 ppm min.	+/- 1 ppm min.
<b>Product Code</b>	<b>Option A</b>	<b>Option B</b>	<b>Option C</b>

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

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

## Ordering Options:

Model OCVCXO	Temp. Range	Frequency Stability	Phase Noise	Supply Voltage	Output Waveform	Pulling Range	Operating Frequency*
<b>NV47S</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>5M00 To 13M0</b>
For Leaded Part	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	
<b>NVG47S</b>	<b>C</b>	<b>C</b>	<b>C</b>			<b>C</b>	
For ROHS Part	<b>D</b>	<b>D</b>					

\*Trailing Zeros Will Be Omitted In Final Part Number

