

# Low Profile. OCXO NV45AA

## Description:

The NV45AA Ovenized Crystal Oscillator Series offers high stability performance in a low profile package (0.46 inches max.) for base station, test equipment, synthesizers, and digital switching applications.



## Features:

- Available in frequencies from 5 MHz to 20MHz with
- CMOS and Sinewave output available
- RoHS-6/Leadfree compliant available
- 5V, 12V and 15V available
- Phase Noise Options

## Frequency Versus Temperature

Operating Temperature	Frequency Range	Frequency Stability.	Frequency Stability	C1 and C2 for -20 to 70C D1 and D2 for -40 to 85C
		-20 to 75 °C	5MHz to 20MHz	+/-5 ppb
-40 to 85 °C		+/- 30 ppb	+/- 50 ppb	D1( +/-30ppb ),D2( +/-50ppb )

## Aging

Frequency	Timeframe	Aging	Product Code
All	First Year	+/- 100 ppb	N/A

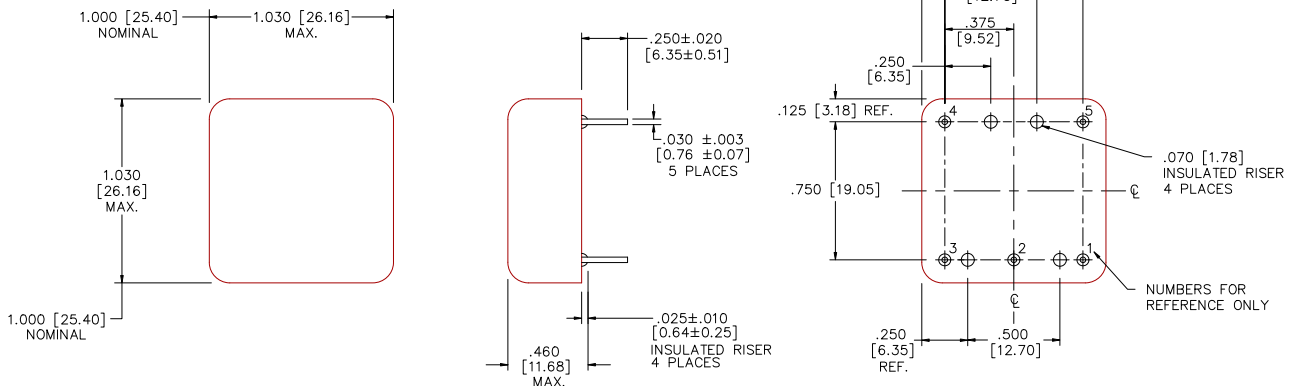
## Phase Noise

	Option A	Option B	Option C
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
10KHz	-155 dBc/Hz	-160 dBc/Hz	-165 dBc/Hz
100KHz	-155 dBc/Hz	-160 dBc/Hz	-165 dBc/Hz

Option B and C not available with squarewave out  
Option C not available with +5VDC supply voltage

### PIN CONNECTIONS.

1. OUTPUT
2. RF & CASE GROUND
3. VOLTAGE CONTROL OR N/C
4. V. REF. OR N/C
5. +VDC



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## Supply Voltage & Power Consumption:

5V +/- 5% ( Code A )	12V +/- 5% (Code B )	15V +/- 5% (Code C )
2.5W turn on power	2.5W	2.5W
1.2W steady state power	1.2W	1.2W

## Output Waveform:

CMOS		Sinewave	
Waveform Description	Phase Noise Option A	Waveform Description	Phase Noise Option B or C
CMOS Output Levels (15pf load)	"0" < 0.5V; "1" > 4.5V	Output Power	8 dBm typ.
Rise / Fall Time	<10ns (10% to 90%)	harmonics	-25dBc
Duty Cycle	45% to 55% @ 50% Logic 1	spurious	-75 dBc

## Pulling Range:

Tuning Range ( 0V to 4V on Vcontrol )	None	+/-0.5 ppm min	+/- 1.0 ppm min
Product Code	A	B	C

Other VC ranges are available on request

## Environmental:

Storage Temperature	-55 to 125 °C
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## Ordering Options:

Type, Package style Leaded/RoHS	Supply Voltage	Temp. Range	Temp. Stability	Pulling Range	Phase Noise	Freq.
NV45AA Leaded NVG45AA Rohs6 Compliant	5V ( A )	C or D	C1 to D2	A,B, or C	A or B or C	xx.xxxxMhz
	12V ( B )	C or D	C1 to D2	A,B, or C	A or B or C	xx.xxxxMhz
	15V ( C )	C or D	C1 to D2	A,B, or C	A or B or C	xx.xxxxMhz

NV45AA B C C1 B C 10.0000MHz

## Part Number Build Example:

This part is RoHS compliant, 12V supply, -20C to 70C, +/- 5ppb frequency vs. temperature stability referenced to 25C,

+/- 0.5ppm pull, Sinewave, best phase noise (Option C ) at 10.0000MHz operating frequency