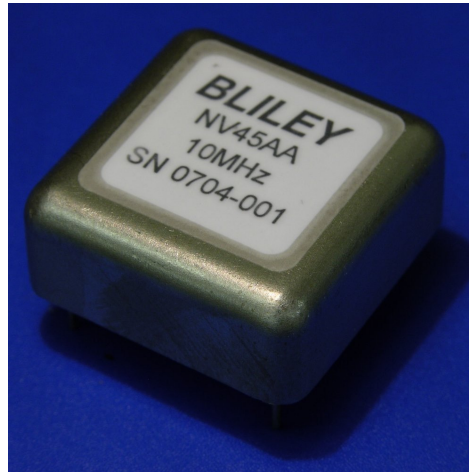


# Low Profile OCXO & OCVCXO

N45AA/AB Series  
NV45AA/AB Series

## Description:

The N45/NV45 AA/AB 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 20 MHz
- HCMOS and Sine Wave Output
- 5V, 12V and 15V available
- Phase Noise Options
- RoHS-6/Leadfree Compliant
- Storage Temperature Range of -55°C to 125°C

### Voltage Control Range: N45 NV45\*

Turning Range (0V to 4V on Vcontrol)	None	+/- 0.5 ppm min
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\*Consult Factory for Wider Frequency Pull Range

### Reference Voltage Output: AA AB\*

Vref	None	4 Vdc
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\*Consult Factory for Other Reference Voltages

Phase Noise	Option A	Option B <sup>1</sup>	Option C <sup>1</sup>
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

<sup>1</sup>Options B and C Not Available with HCMOS Output or +5VDC Supply Voltage

### Operating Temperature and Frequency Stability:

Temperature Range Code	Operating Temperature	Stability Code +/- 5.0 ppb	Stability Code +/- 30.0 ppb	Stability Code +/- 50.0 ppb
A	-20 to +70°C	A	B	C
B	-40 to +85°C	N/A	B	C

### Supply Voltage & Power Consumption:

Supply Voltage	5V +/-5%	12V +/-5%	15 V +/-5%
Power Consumption	4.8 W Startup Power 2.0 W Steady State	4.8 W Startup Power 2.0 W Steady State	4.8 W Startup Power 2.0 W Steady State
Product Code	A	B	C

# Low Profile OCXO & OCVCXO

**N45AA/AB Series**  
**NV45AA/AB Series**

### 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	< 10 nsec Rise/Fall Time
-75 dBc Spurious Response	50 +/- 5% Duty Cycle

### Output Frequency:

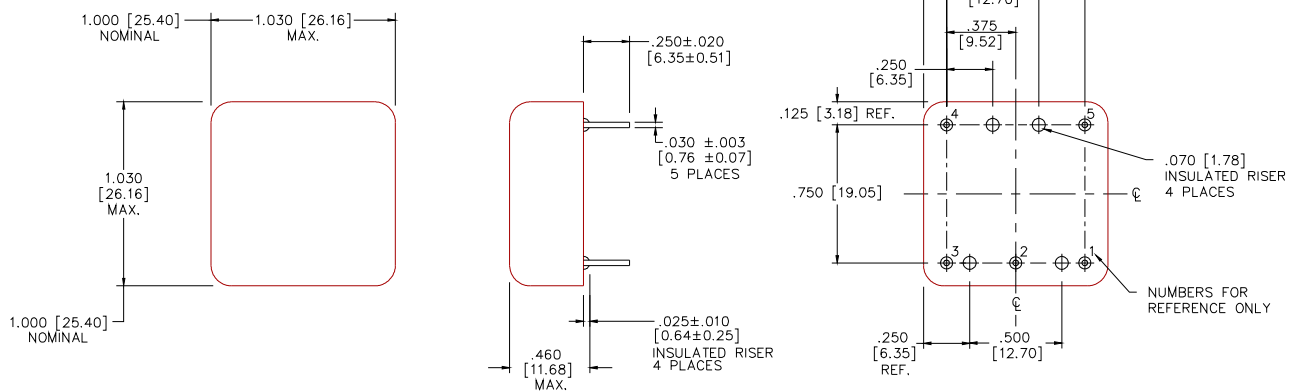
Frequency Range
5 MHz To 20 MHz

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

Frequency	Timeframe	Aging
Any	1 Year	Less than +/- 100 ppb
Any	15 Years	Less than +/- 500 ppb

### PIN CONNECTIONS

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



### Ordering Options:

Model	Reference Voltage	Phase Noise	Temp. Range	Frequency Stability	Supply Voltage	Output Waveform	Operating Frequency*
<b>OCXO</b>							
For Led Part	<b>N45</b>	<b>AA</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>5M00</b>
	<b>NG45</b>	<b>AB</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>To</b>
For ROHS Part		<b>C</b>		<b>C</b>	<b>C</b>		<b>20M0</b>

Model	Reference Voltage	Phase Noise	Temp. Range	Frequency Stability	Supply Voltage	Output Waveform	Operating Frequency*
<b>OCVCXO</b>							
For Led Part	<b>NV45</b>	<b>AA</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>5M00</b>
	<b>NVG45</b>	<b>AB</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>To</b>
For ROHS Part		<b>C</b>		<b>C</b>	<b>C</b>		<b>20M0</b>

\*Trailing Zeros Will Be Omitted In Final Part Number