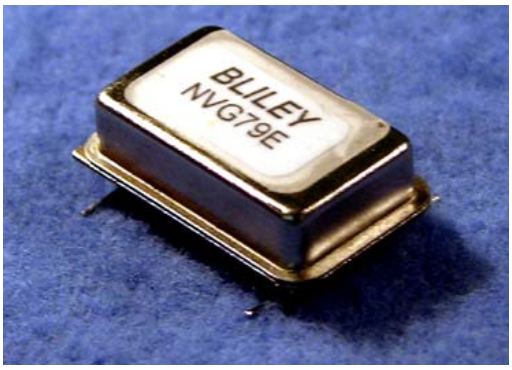
NVG79D & E Series
Low Power DIP OCXO

Description:

Bliley's low power DIP OCXOs are designed for portable applications where low start-up and idling current are required to preserve battery life.

This series of OCXOs have fast warm-up times, are available with various input supply voltages and have excellent frequency vs. temperature performance.



Features:

- **Low Input current during warm-up <250mA**
- **Warm-up Time as low as <10 Seconds**
- **Power Input at steady state <0.4 watts**
- **Standard Frequencies available; 10MHz, 12.8MHz, 16MHz, 16.384MHz, 19.44MHz, 20MHz, 26MHz, and 40MHz**
- **Consult Factory for other Frequencies available**

Applications: This series of OCXOs are designed for those applications requiring minimal input power consumption while maintaining excellent Frequency vs. Temperature performance.

Frequency Range:

Output Frequency Range	20 KHz to 54MHz

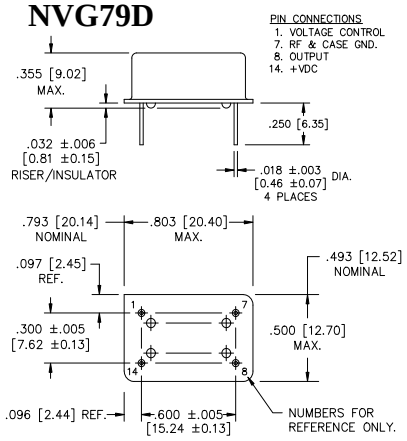
Frequency versus Temperature

Operating Temperature	Temperature Range Options	Frequency Stability.
0°C to 60°C	Option A	±0.025ppm (.05ppm Block)
-20°C to+70°C	Option B	±0.05ppm
-40 to +85 °C	Option C	±0.10ppm

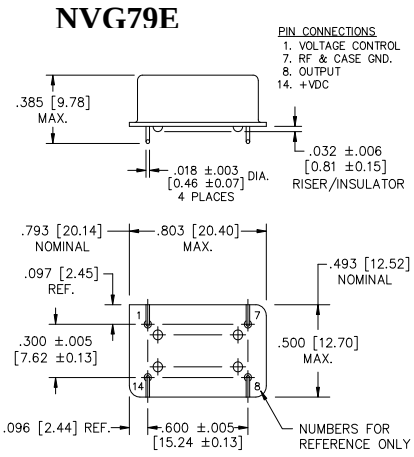
Typical Specifications:

Parameter	Specification			Units
Supply Voltage	+3.3VDC & +5VDC			
Output Signal	Option A - Sine Wave			
Frequency <20MHz	>1			Vpp
Frequency >20MHz	>0.63			Vpp
Load	50Ω	1KΩ || 5pF		
Supply Voltage	3.3	5	12	VDC
Output Signal	Option B - HCMOS Compatible			
Level "0"	<0.4			V
Level "1"	>Vcc – 0.5V		4.5 – 5.0	V
Rise & Fall Time	<7			nS
Duty Cycle	50±5			%

NVG79D



NVG79E



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Typical Specifications …continued

Parameter		Units
Aging		
1st Year	±0.3	ppm
10 Years	±2.5	ppm
Short Term Stability		
0.1 Sec to 30 Sec	$<5 \times 10^{-10}$	
Typical @ 1 Sec	5×10^{-11}	

Phase Noise Performance

Typical @ 10MHz	HCMOS Output	Sine Wave Output	Units
Offset from Carrier			
1 Hz	-70	-75	dBc/Hz
10Hz	-100	-110	dBc/Hz
100Hz	-130	-135	dBc/Hz
1KHz	-140	-145	dBc/Hz
10KHz	-145	-150	dBc/Hz

Electronic Frequency Control

Voltage Control Range	Supply Voltage +3.3VDC	Supply Voltage +5.0VDC	Supply Voltage +12VDC	Units
0.0 – 3.3 VDC	>±2.5	----	----	ppm
0.5 – 5.0 VDC	----	>±2.5	>±2.5	ppm

Power Supply Characteristics

	Option "A"	Option "B"	Option "C"	Units
Input Voltage	+3.3	+5	+12	VDC
Input Current @ 30°C	<110	<80	<30	mA
Input Current @-20°C	<170	<120	<45	mA
Turn-on Current	<250	<250	<250	mA
Warm-up Time	30	10	10	Seconds

Ordering Options:

	Package Style	Temperature Range	Output Type	Power Supply	Operating Frequency (MHz)
NVG79 (ROHS Compliant)	D	A	A	A	XXMXXX
	E	B	B	B	XXMXXX
		C		C	XXMXXX
	↑	↑	↑	↑	↑
	D	**B**	**A**	**B**	**16M384**

NVG79