

Ultra Low Phase Noise "Zeus" Series

Description:

The Zeus Series from the Olympian OCVCXO Family is a customizable frequency range product specifically designed for applications requiring superior noise performance out to a 100KHz offset. It is ideal for phase-locked microwave signal sources such as DRO's, low noise test equipment, synthesizers, microwave com-systems, and radar applications.



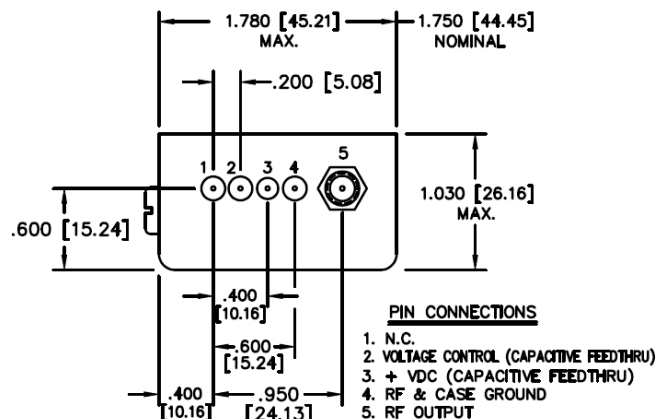
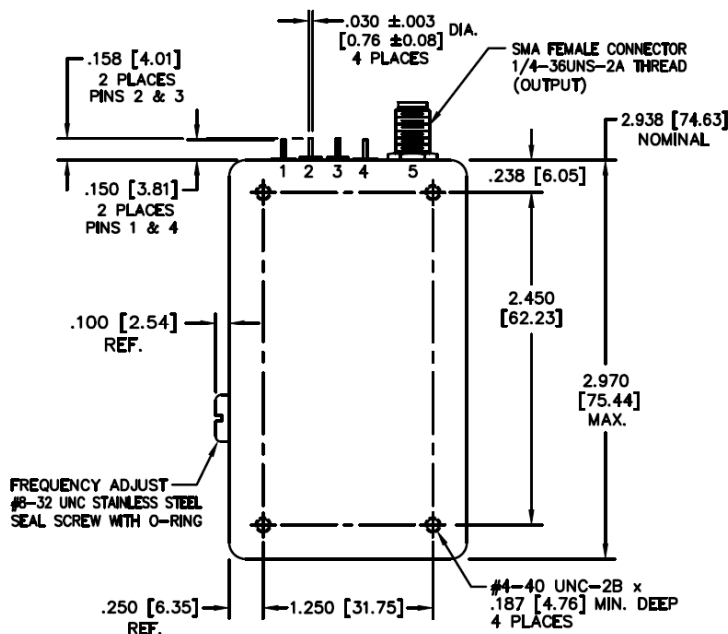
Features:

- Excellent Frequency Versus Temperature Stability
- Typical G-Sensitivity 0.5 ppb/g
- Frequency Range 30 to 130 MHz
- Excellent Long-Term Aging
- EMI Feed Thru on DC Inputs
- Rugged Package
- ROHS Compliant Version Available
- Hi-Rel Version Available on Request

Titles	Min.	Typ.	Max.	Unit of Measure	Notes/Comments
Frequency Range	30		130	MHz	
Output Level	+7			dBm	
Harmonics			-30	dBc	
Spurious			-80	dBc	
Temperature Range (option)					
(A)	0		50	°C	
(B)	-20		70	°C	
(C)	-40		70	°C	
(D)	-40		85	°C	
Frequency Stability (option)					Option / Value
0 to 50°C	+/-50		+/-500	ppb	A = +/- 50ppb
-20C to 70°C	+/-100		+/-500	ppb	B = +/- 100ppb
-40C to 70°C	+/-250		+/-500	ppb	C = +/- 250ppb
-40C to 85°C	+/-250		+/-500	Ppb	D = +/- 500ppb
Aging					
After 30 Days		+/- 5.00		ppb/day	@100MHz
For 1 Year		+/- 0.50		ppm	@100MHz
For 10 Years		+/- 1.00		ppm	@100MHz
For 20 Years		+/- 1.50		ppm	@100MHz

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Titles	Min.	Typ.	Max.	Unit of Measure	Notes/Comments
EFC Voltage Swing (option A)	0	5 (center)	10	Vdc	
EFC Voltage Swing (option B)	-5	0 (center)	5	Vdc	
EFC slope		Negative			
EFC Pullability					
Option A	+/-3			ppm	Not available w/ 'A' phase noise
Option B	+/-2			ppm	
Option C	+/-1			ppm	
Mechanical Trim Range					
Option A	+/-3			ppm	
Option B	+/-2			ppm	
Option C	+/-1			ppm	
Option D		None		ppm	
Supply Voltage					
Option A	11.4	12	12.6	%	+/-5%
Option B	14.25	15	15.75	%	+/-5%
Power consumption					
Startup/Turn-on Power			6	Watts	@25°C ambient
Steady-State Power		3		Watts	@25°C ambient
Environmental:					
Storage Temperature (Atmosphere)					-55C to 95C
MTTF (RELEX 2011)					155,000 Hours
Shock (MIL-STD-202)					Method 213 Condition C
Sine Vibration (MIL-STD-202)					Method 204 Condition A
Random Vibration (MIL-STD-810)					Method 514 Procedure I



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Phase Noise: (Options are worse case performance for 100 MHz unit)
Tests performed @ +25°C, center EFC, center mechanical trim

	Option A	Unit
10 Hz	-103	dBc/Hz
100 Hz	-133	dBc/Hz
1000 Hz	-160	dBc/Hz
10000 Hz	-174	dBc/Hz
100000 Hz	-178	dBc/Hz
	Option B	
10 Hz	-100	dBc/Hz
100 Hz	-130	dBc/Hz
1000 Hz	-157	dBc/Hz
10000 Hz	-172	dBc/Hz
100000 Hz	-176	dBc/Hz
	Option C	
10 Hz	-95	dBc/Hz
100 Hz	-125	dBc/Hz
1000 Hz	-155	dBc/Hz
10000 Hz	-172	dBc/Hz
100000 Hz	-175	dBc/Hz
	Option D	
10 Hz	-90	dBc/Hz
100 Hz	-120	dBc/Hz
1000 Hz	-153	dBc/Hz
10000 Hz	-170	dBc/Hz
100000 Hz	-174	dBc/Hz

Ordering Options:

Model	Phase Noise	Temp. Range	Freq. Vs. Temp Stability	EFC Voltage Range	EFC Range	Mechanical Trim	Supply Voltage	Operating Frequency*
NV108C For Leaded Part	A	A (0to50°C)	A (+/-50ppb)	A (0-10Vdc)	A (3ppm)	A (3ppm)	A (12Vdc)	30M00
	B	B (-20to70°C)	B (+/-100ppb)	B (-5to5Vdc)	B (2ppm)	B (2ppm)	B (15Vdc)	To
NVG108C For ROHS Part	C	C (-40to70°C)	C (+/-250ppb)		C (1ppm)	C (1ppm)		130M0
	D	D (-40to85°C)	D (+/-500ppb)			D (None)		

Note: Not All Combinations Are Available
*Trailing Zeros will be omitted in final part number