

Ultra Low Phase Noise

OCVCXO



“Zeus” Series

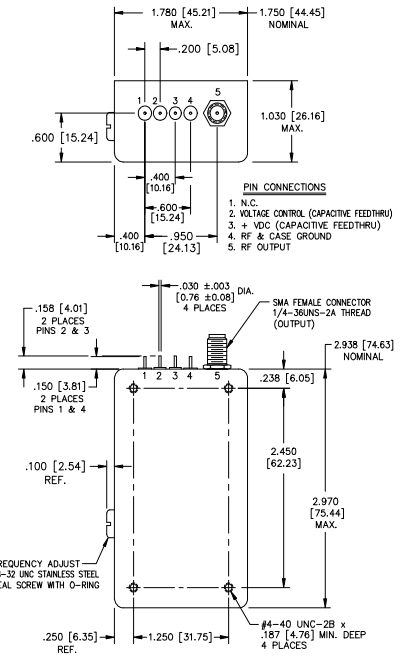
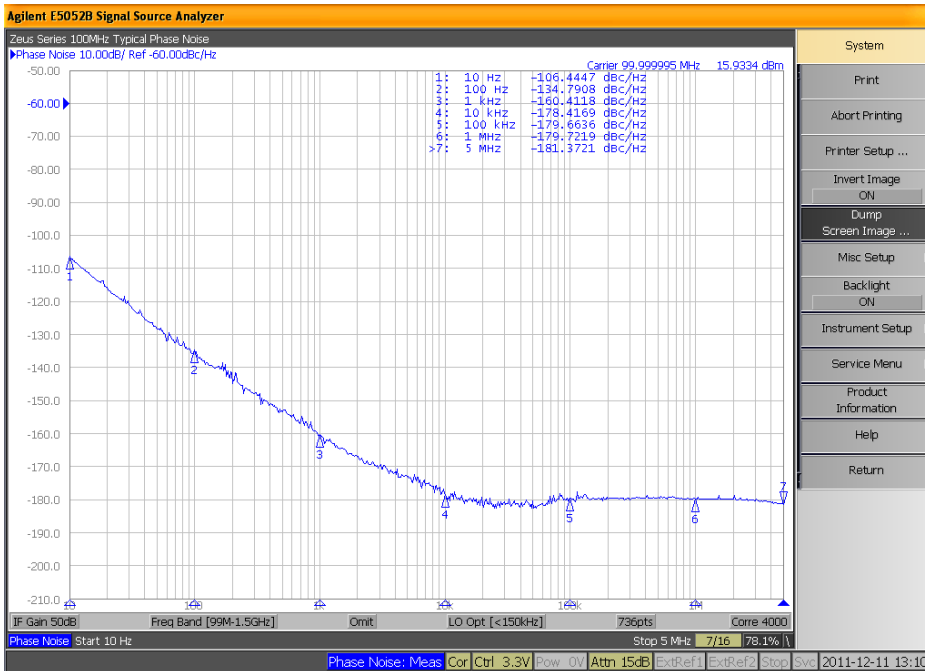
Description:

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



Output:

Sinewave: 10 dBm Min.
 Harmonics: -30 dBc Max. Spurious: -80 dBc Max.
 Frequency Range: 30 MHz to 130 MHz

Aging:

Frequency	Timeframe	Aging
100 MHz	After 30 Days	+/- 5 ppb/day Typ.
	For 1 Year	+/- 0.50 ppm Typ.
	For 10 Years	+/- 1.00 ppm Typ.
	For 20 Years	+/- 1.50 ppm Typ.



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Phase Noise: (Options are worst case performance for 100 MHz Unit)

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

Frequency Stability Versus Temperature:

Temp. range Option	F vs. T (Option A)	F vs. T (B)	F vs. T (C)	F vs T (D)
0C to 50C (A)	+/- 50 ppb	+/- 100 ppb	+/- 250 ppb	+/- 500 ppb
-20C to 70C (B)	N/A	+/- 100 ppb	+/- 250 ppb	+/- 500 ppb
-40C to 70C (C)	N/A	N/A	+/- 250 ppb	+/- 500 ppb
-40C to 85C (D)	N/A	N/A	+/- 250 ppb	+/- 500 ppb

Electronic Frequency Control:

EFC Range Option	Option A*	Option B	Option C
0 Vdc to 10 Vdc (A)	+/- 3 ppm Negative Pull	+/- 2 ppm Negative Pull	+/- 1 ppm Negative Pull
-5 Vdc to 5 Vdc (B)	+/- 3 ppm Negative Pull	+/- 2 ppm Negative Pull	+/- 1 ppm Negative Pull

*Option “A” Pull Not Available With “A” Phase Noise

Mechanical Trim:

Option A	Option B	Option C	Option D
+/- 3 ppm	+/- 2 ppm	+/- 1 ppm	None

Voltage and Power Consumption:

Option A		Option B	
12 Vdc +/- 5%		15 Vdc +/- 5%	
Turn-on Power	6 W max.	Steady-State	3 W typ. at 25C

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

Ordering Options:

Model	Phase Noise	Temp. Range	Freq. Vs. Temp Stability	EFC Voltage Range	EFC Range	Mechanical Trim	Supply Voltage	Operating Frequency*
NV108C For Leadet Part	A	A	A	A	A	A	A	30M00
	B	B	B	B	B	B	B	To
NVG108C For ROHS Part	C	C	C		C	C		130M0
	D	D	D			D		

Note: Not All Combinations Are Available

*Trailing Zeros will be omitted in final part number