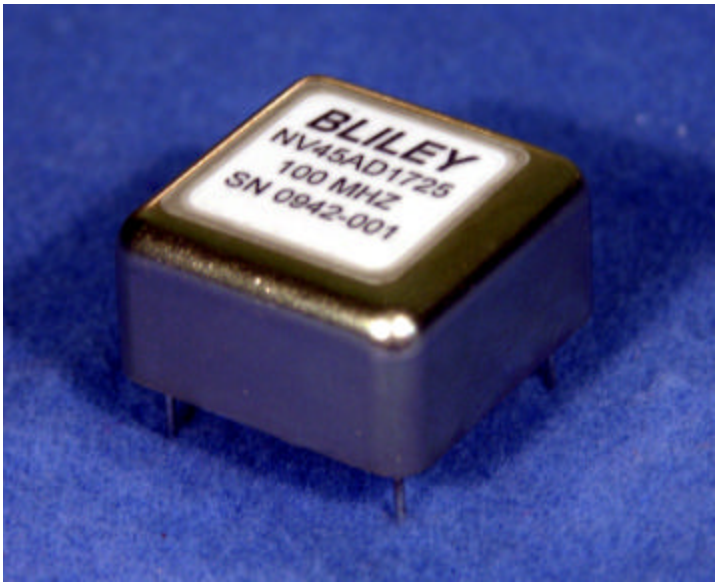
Ultra Low Phase Noise OCVCXO

NV45AD1725

Description:

The NV45AD1725 Ovenized Crystal Oscillator is a 100MHz 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, microwave com-systems, and radar applications.



Features:

- Tight Stabilities
- +/- 50 ppb over temp.
- High power output of 15 dBm available
- Low profile package 0.460 inches max.
- Excellent long-term aging
- Low Power Consumption 1 Watt typical at 25C
- ROHS Compliant Version Available

Output:

Sinewave: 12 dBm typical - 15 dBm max.
Harmonics: -30 dBc max. Spurious: -80 dBc max.

Phase Noise: (Options are worst case performance or better)

Offset Frequency	Option A (dBc/Hz)	Option B (dBc/Hz)	Option C (dBc/Hz)
10	-100	-95	-90
100	-130	-125	-120
1000	-155	-155	-152
10000	-168	-165	-165
100000	-170*	-170	-170

***Lower Noise Floor Available, Consult Factory**

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	+/- 300 ppb
-20C to 70C (B)	N/A	+/- 100 ppb	+/- 250 ppb	+/- 300 ppb
-40C to 70C (C)	N/A	N/A	+/- 250 ppb	+/- 300 ppb
-40C to 85C (D)	N/A	N/A	+/- 250 ppb	+/- 300 ppb

Frequency Versus Voltage (Vcontrol = 0V to 10V)

Option A	Option B
+/- 1 ppm	+/- 2 ppm
Available with All Phase Noise Options	Not Available with Phase Noise Option A

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Voltage and Power Consumption:

Option A		Option B	
12 Vdc +/- 5%		15 Vdc +/- 5%	
Turn-on Power	4.8 W max.	Steady-State*	1.0 W typ. at 25C

*Steady-State Power is 1.5 W typ. At 25C for Temp Range Options C & D

Aging:

Frequency	Timeframe	Aging
100 MHz	After 30 Days	+/- 5 ppb/day Typ.
	For 1 Year	+/- 1.00 ppm Typ.
	For 10 Years	+/- 1.50 ppm Typ.
	For 20 Years	+/- 2.00 ppm Typ.

Environmental:

Storage Temperature	Atmosphere	-55C to 95C
Crystal g-Sensitivity	Sine Vibration	5×10^{-10} per g/axis
MTTF	RELEX 2009	153,300 Hours
Shock	MIL-STD-202G	Method 213B Condition C
Sine Vibration	MIL-STD-202G	Method 204D Condition A
Random Vibration	MIL-STD-810G	Method 514.6 Procedure I

Ordering Options:

Model	Phase Noise	Temp. Range	Freq. Vs. Temp Stability	Frequency Vs. Voltage	Supply Voltage
NV45AD1725	**A**	**A**	**A**	**A**	**A**
For Leaded Part	**B**	**B**	**B**	**B**	**B**
NVG45AD1725	**C**	**C**	**C**		
For ROHS Part		**D**	**D**		

Note: Not All Combinations Are Available