

High Frequency, Very Low Noise and Low g-Sensitivity VCXO VLEU-Type series

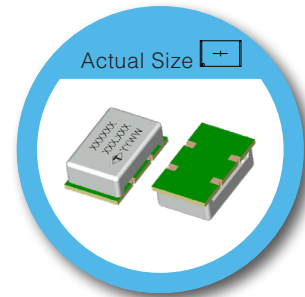
14 x 9mm SMD package

FEATURE

- VLEU-Type series is a high frequency high performance VCXO offering high frequency and very low phase noise/Low g-Sensitivity. The part comes in a small SMD package which makes it suitable for reflow soldering during pick and place assembly.
- Low Phase Noise
- Low g-Sensitivity
- Small SMD Package
- Low Power Consumption

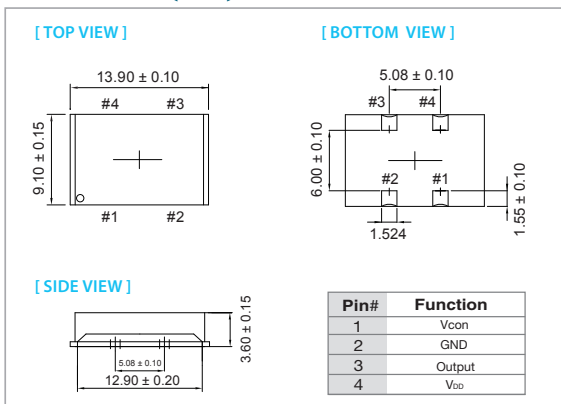
TYPICAL APPLICATION

- Instrument
- Microwave Communication
- Test & Measurement
- Telecom Systems
- Satellite Communication

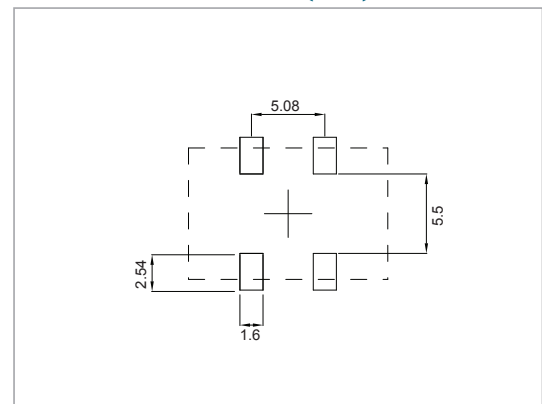


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION OUTPUT (PIN = "R.F. OUTPUT")

Parameter	Min.	Typ.	Max.	Unit	Test Condition
Frequency (Fo)	50		125	MHz	Standard Frequency:100MHz, 122.88MHz, 125MHz
Frequency Stability (Overall)	-25		+25	ppm	Frequency stability includes frequency tolerance@25°C and frequency stability vs. operating temperature range and voltage variance and 10 years aging.
Operating Temperature Range	-20°C ~ +70°C			°C	
	-40°C ~ +85°C				
Storage Temperature Range	-45°C ~ +90°C			°C	
Waveform	CMOS				
Duty Cycle	45		55	%	
Rise / Fall Time			3	nSec	(20%V _{DD} ~ 80%V _{DD})
Level	V _{OL}		0.5	V	
	V _{OH}	4.5		V	
Load		15		pF	
g-Sensitivity		1.5		ppb/g	
Phase Noise (100MHz) (Max.)			-80	dBc/Hz	@ 10Hz
			-115	dBc/Hz	@ 100Hz
			-140	dBc/Hz	@ 1KHz
			-160	dBc/Hz	@ 10KHz
			-168	dBc/Hz	@ 100KHz
		-170	dBc/Hz	@ 1MHz	

Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice.

ELECTRICAL FREQUENCY ADJUSTMENT (PIN = “VCO INPUT”)

Parameter	Min.	Typ.	Max.	Unit	Test Condition
Pulling Range	±25			ppm	
Control Voltage	0		+3.3	V	
Slope	Positive				
Center Voltage		+1.65		V	
Linearity	-10		+10	%	
Modulation Bandwidth	1			KHz	
VC Input Impedance	100			Mohm	

INPUT POWER (PIN = “+VDC”)

Parameter	Min.	Typ.	Max.	Unit	Test Condition
Voltage	+3.135	+3.3	+3.465	V	
Current			30	mA	At maximum supply voltage

ENVIRONMENTAL

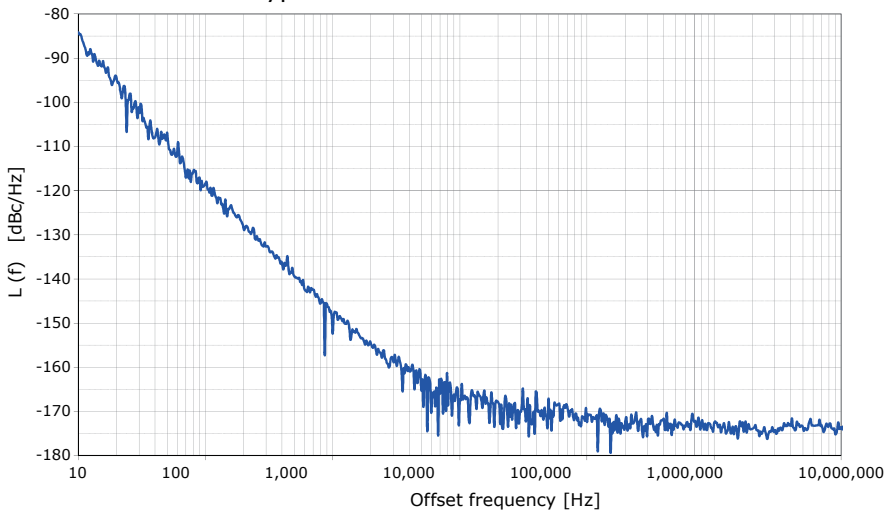
Parameter	Reference Std.	Test Condition
Vibration Test	DIN EN 60068-2-6	10~55Hz, 0.75mm Peak; 55~2000Hz, 10g Peak. 10 Cycles; 3 axis; 1Oct./min.
Thermal Shock	DIN EN 60068-2-14	30 min. @each temperature 10 cycles, Transfer<1min.; -40°C +/-3°C; 85°C +/-3°C
Mechanical Shock	DIN EN 60068-2-27	6 shocks per axis, 100g; 6ms both directions

ORDERING INFORMATION

-20°C ~ +70°C	VLEUWCJTNF-Frequency
-40°C ~ +85°C	VLEUWL JTNF-Frequency

PHASE NOISE TEST DATA

VLEU-Type 100MHz CMOS VCXO Phase Noise



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