

LGXE-XXXMXX-XXXB – 25x25 Low-G OXCO



FEATURES

- ✓ Surface Mountable Design
- ✓ High Stability vs. Temperature
- ✓ Quick Warm-Up Time
- ✓ Low Age Rates
- ✓ Low Phase Noise
- ✓ 25x25mm Package

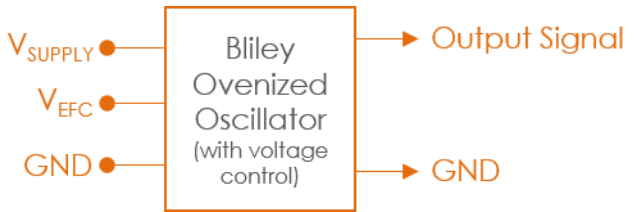
#blileytakesyoufurther

Oven Controlled Oscillator

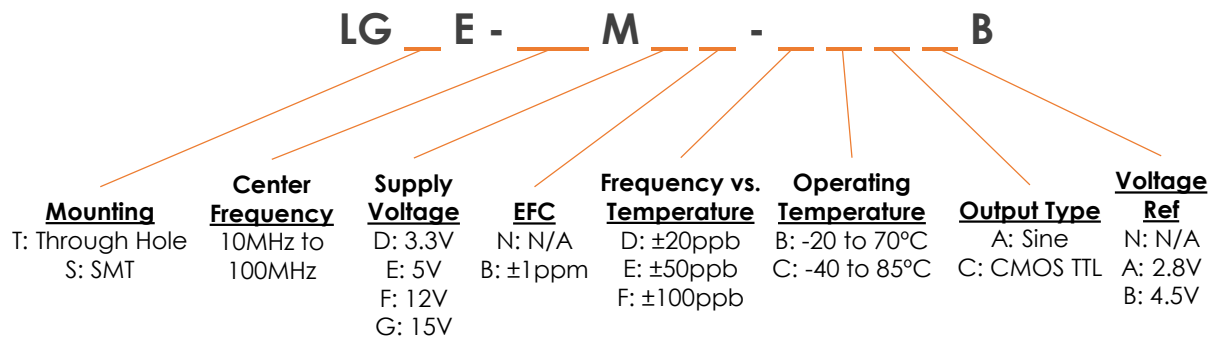
Description

Bliley high performance OXCO product offering is a result of 85 years in the Frequency Control Industry. Modern layout topologies enable Bliley to engineer and produce robust designs for all applications.

Block Diagram



Part Number Configuration



*Not all combinations of options may be possible **Other options may be available

DISCLAIMER: Bliley Technologies, Inc. reserves the right to make changes to the product(s) and or information contained herein without notice. No liability is assumed as a result of their use or application. No intellectual property rights accompany the sale or delivery of any such product(s) or information.

Performance Specifications

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Frequency Range		10		100	MHz
Initial Tolerance	@ +25°C±1°C			±100	ppb
Warm Up Time	To initial tolerance			3	Min
Frequency Stability					
vs. Temperature	See Options (Max) Referenced to +25°C		±20, ±50, ±100		ppb
vs. Load	5% Change		±2		ppb
vs. Supply Voltage	5% Change		±2		ppb
ADEV (Short-Term Stability)	T = 1 Second		5		E-12
Aging					
Per Day	After 30 Days Operation			±1.0	ppb
1 st Year				±100	ppb
Supply Voltage					
	Option D	3.13	3.3	3.47	Vdc
	Option E	4.75	5	5.25	Vdc
	Option F	11.4	12	12.6	Vdc
Oscillator Power					
	Start Up			4	W
	Steady State		1.5		W
Electronic Frequency Control					
Voltage Range					
	@3.3V, @5V	0		Vdd	Vdc
	@12V	0		10	
Center Voltage					
	@5V		Vdd/2		Vdc
	@12V		5		
Frequency Range		±1			ppm
Slope			positive		
Input Impedance			100		kΩ
Linearity			10		%

Note: Values typical of 10MHz units

DISCLAIMER: Bliley Technologies, Inc. reserves the right to make changes to the product(s) and/or information contained herein without notice. No liability is assumed as a result of their use or application. No intellectual property rights accompany the sale or delivery of any such product(s) or information.

Performance Specifications

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Output Characteristics (CMOS/TTL)		MIN	TYP	MAX	
High Output Level	Logic "1"	90% Vdd			Vdc
Low Output Level	Logic "0"	10% Vdd			Vdc
Rise/Fall Time		10			nSec
Duty Cycle		45	50	55	%
Load		15			pF
Output Characteristics (Sinusoid)		MIN	TYP	MAX	
Output Level		7.0			dBm
VSWR	Into 50 Ω	1.5:1			
Harmonics		-30			dBc
Load		45	50	55	Ω

Parameter	Conditions	Values		Unit
		TYP	TYP	
Phase Noise				
Phase Noise (10 MHz)	Tested at +25°C	Sinusoid	CMOS	
	1Hz	-90	-90	dBc/Hz
	10Hz	-120	-120	dBc/Hz
	100Hz	-140	-140	dBc/Hz
	1kHz	-145	-145	dBc/Hz
	10kHz	-150	-150	dBc/Hz
	100kHz	-155	-155	dBc/Hz

Ultra-low phase noise options available in Bliley Apollo LN OCXO families

Performance Specifications

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Reference Voltage	Option A	2.6	2.8	3.0	Vdc
	Option B	4.3	4.5	4.7	Vdc

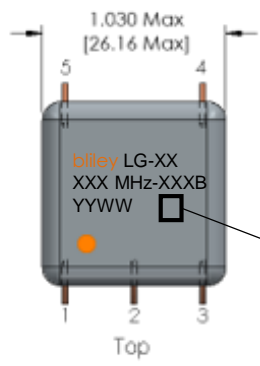
Note: Values typical of 10MHz units

DISCLAIMER: Bliley Technologies, Inc. reserves the right to make changes to the product(s) and/or information contained herein without notice. No liability is assumed as a result of their use or application. No intellectual property rights accompany the sale or delivery of any such product(s) or information.

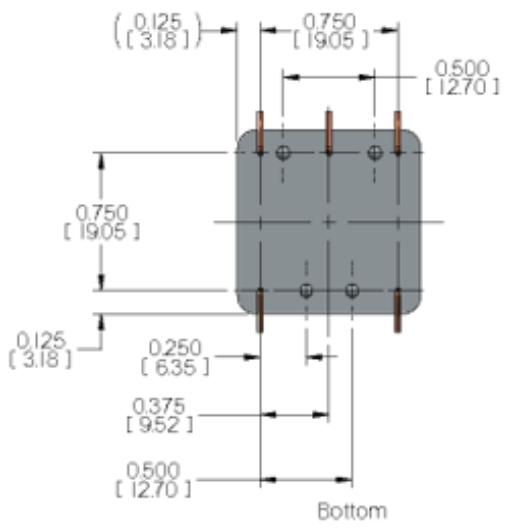
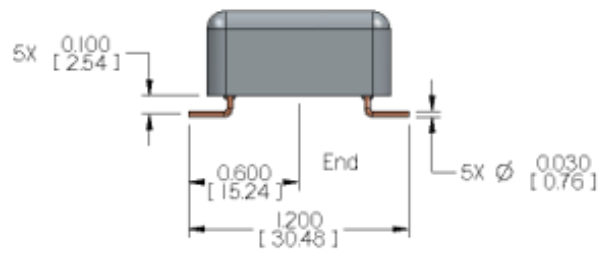
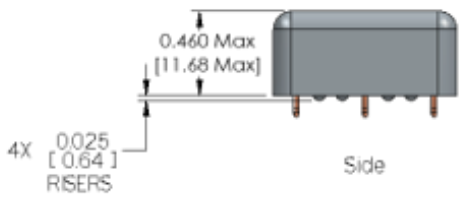
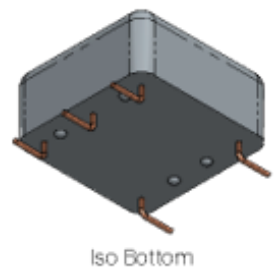
Environmental Compliance

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Operating Temperature	Option B	-20		+70	°C
	Option C	-40		+85	°C
Storage Temperature		-50		+100	°C
Seal	MIL-STD-202 Method 112 Test Condition D				
Mechanical Shock	MIL-STD-202 Method 213 Test Condition J				
Vibration	MIL-STD-202 Method 201				
Acceleration Sensitivity	10MHz output Vibration profile: 0.001G ² /Hz 10Hz to 2kHz	0.3	0.5		ppb/g

Physical Specifications – Surface Mount



Traceability Code or SN



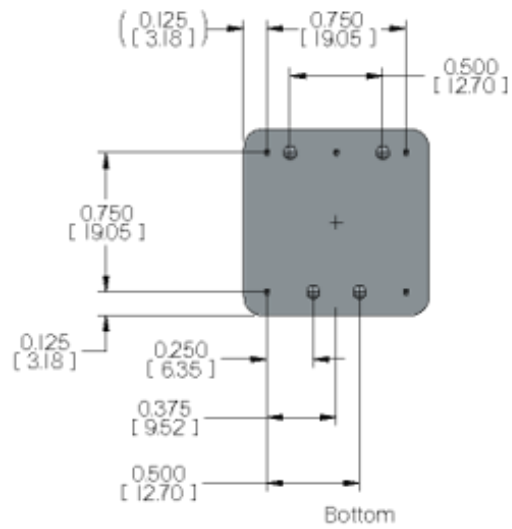
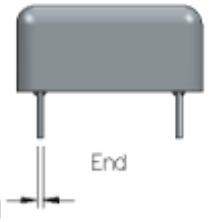
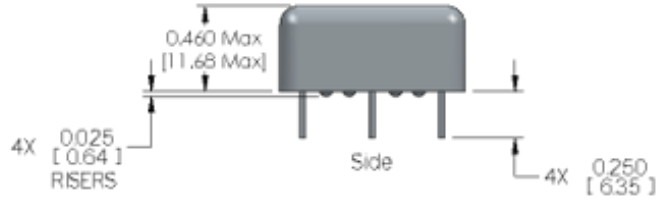
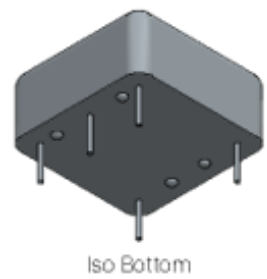
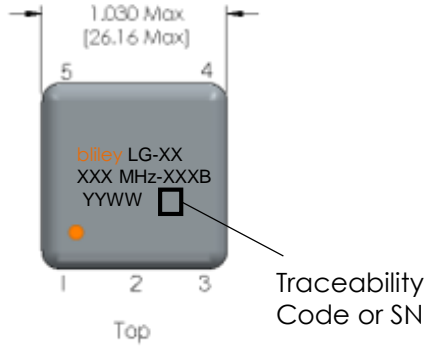
PIN	FUNCTION
1	RF Output
2	Ground
3	EFC/N.C.
4	Vref/N.C.
5	Supply Voltage

Tolerances (mm) .X = ± 0.5, .XX = ± 0.2 unless otherwise specified

Notes:
 • None

DISCLAIMER: Bliley Technologies, Inc. reserves the right to make changes to the product(s) and or information contained herein without notice. No liability is assumed as a result of their use or application. No intellectual property rights accompany the sale or delivery of any such product(s) or information.

Physical Specifications – Through Hole



PIN	FUNCTION
1	RF Output
2	Ground
3	EFC/N.C.
4	Vref/N.C.
5	Supply Voltage

Tolerances (mm) .X = ± 0.5, .XX = ± 0.2 unless otherwise specified

Notes:
• None

DISCLAIMER: Bliley Technologies, Inc. reserves the right to make changes to the product(s) and/or information contained herein without notice. No liability is assumed as a result of their use or application. No intellectual property rights accompany the sale or delivery of any such product(s) or information.