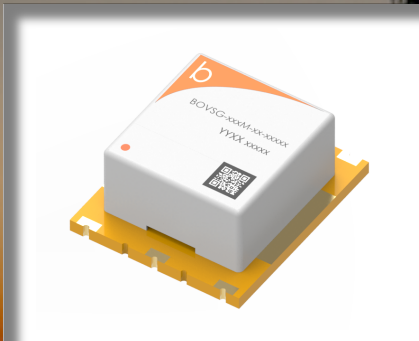




Oven Controlled Oscillator

FEATURES

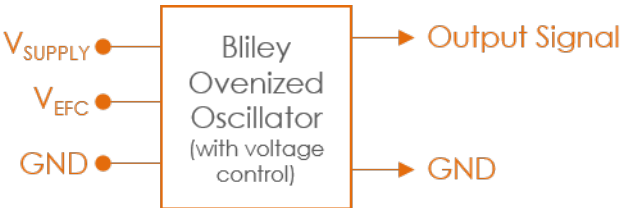
- ✓ Surface Mountable Design
- ✓ High Stability vs. Temperature
- ✓ Quick Warm-Up Time
- ✓ Low Age Rates
- ✓ Low Phase Noise
- ✓ 22x25mm Package

#blileytakesyoufurther

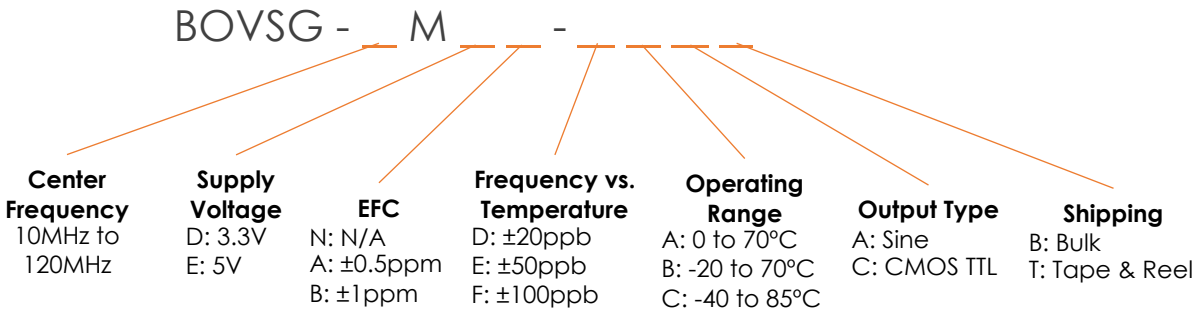
Description

Bliley high performance OCXO 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

Performance Specifications

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Frequency Range		10		120	MHz
Initial Tolerance	@ +25°C±1°C			±100	ppb
Warm Up Time	To initial tolerance			3	Min
Frequency Stability					
vs. Temperature	See Options (Max) (Max-Min)/2		±20, ±50, ±100		ppb
vs. Load	5% Change		±2		ppb
vs. Supply Voltage	5% Change		±2		ppb
Short-Term Stability	T = 1 Second		5E-11		
Aging					
After 30 Days Operation					
Per Day				±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
Oscillator Power	Start Up			3.5	W
	Steady State		1.5		W
Electronic Frequency Control					
Voltage Range		0	Vdd/2	Vdd	Vdc
Frequency Range	See Options (Min)	±0.5,±1			ppm
Slope			positive		
Input Impedance			100		kΩ
Linearity			10		%

Note: Values typical of 10MHz units

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Performance Specifications

Parameter	Conditions	Values			Unit
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				5	nSec
Duty Cycle		45	50	55	%
Load			15		pF
Output Characteristics (Sinusoid)		MIN	TYP	MAX	
Output Level			9.0		dBm
Spurious				-70	dBc
Harmonics				-40	dBc
Load		45	50	55	Ω

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

Note: Values typical of 10MHz units

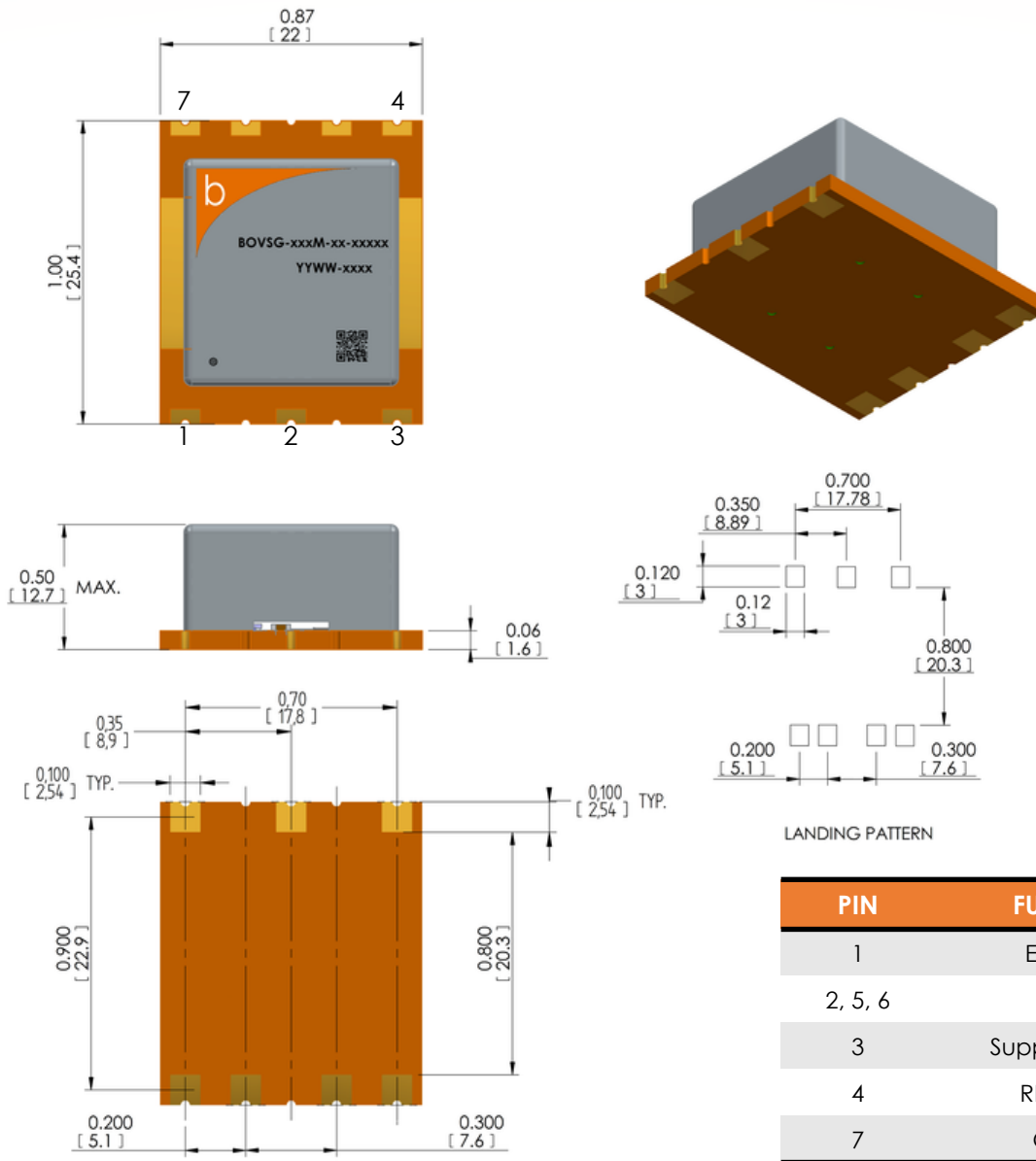
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Environmental Compliance

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Operating Temperature	Option A	0		+70	°C
	Option B	-20		+70	°C
	Option C	-40		+85	°C
Storage Temperature		-55		+100	°C
Seal	MIL-STD-202 Method 112 Test Condition D				
Mechanical Shock	MIL-STD-202, Method 213, Test Condition C				
Vibration	Mil-Std-202, Method 201				
Acceleration Sensitivity	10MHz output Vibration profile: 0.001G ² /Hz 10Hz to 2kHz		1.0		ppb/g

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Physical Specifications



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



Notes:

- Non-RoHS available upon request

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