

FEATURES

- ✓ SMD Construction
- ✓ Standard 5X3.2mm Package Size
- ✓ Mil-Std-202 Compliant

Avionics Grade Crystal Oscillator

#blileytakesyoufurther

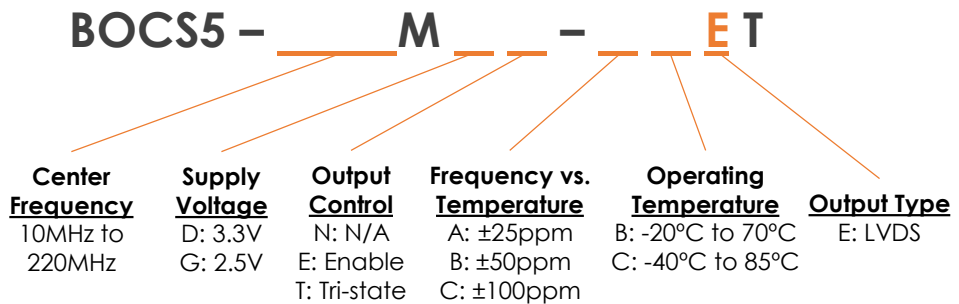
Description

Bliley Crystal Oscillator are designed to meet the rigorous demands of QPL 55310. Bliley's single vertically integrated factory of Crystal and Oscillator Engineering allows quick-turn samples of custom frequencies to support short-term design cycle-times. Applications consisting of: Military, Instrumentation, SATCOM, and Telecommunications.

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	
General					
Frequency Range	No-PLL	10		220	MHz
Frequency vs Temperature	See Options (Max) Referenced to +25°C		±25, ±50, ±100		ppm
Perturbation	Per 1°C			±3	ppm
Age Stability	1st Year			±3	ppm
Supply Voltage (Vdd)	Option D	3.13	3.3	1.47	Vdc
	Option G	2.37	2.5	2.63	Vdc
Current Consumption			16	27	mA
Output Control	Enable-High Disable-Low	30% Vdd		70% Vdd	
Start Up Time			3	10	mSec
Moisture Sensitivity Level	1				

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Output Characteristics (LVDS-Differential)					
High Output Level	Logic 1	1.43	1.60		Vdc
Low Output Level	Logic 0		0.90	1.10	Vdc
Rise/Fall Time	20% ↔ 80%		0.2	0.4	nSec
Duty Cycle		45	50	55	%
Load			100		Ω

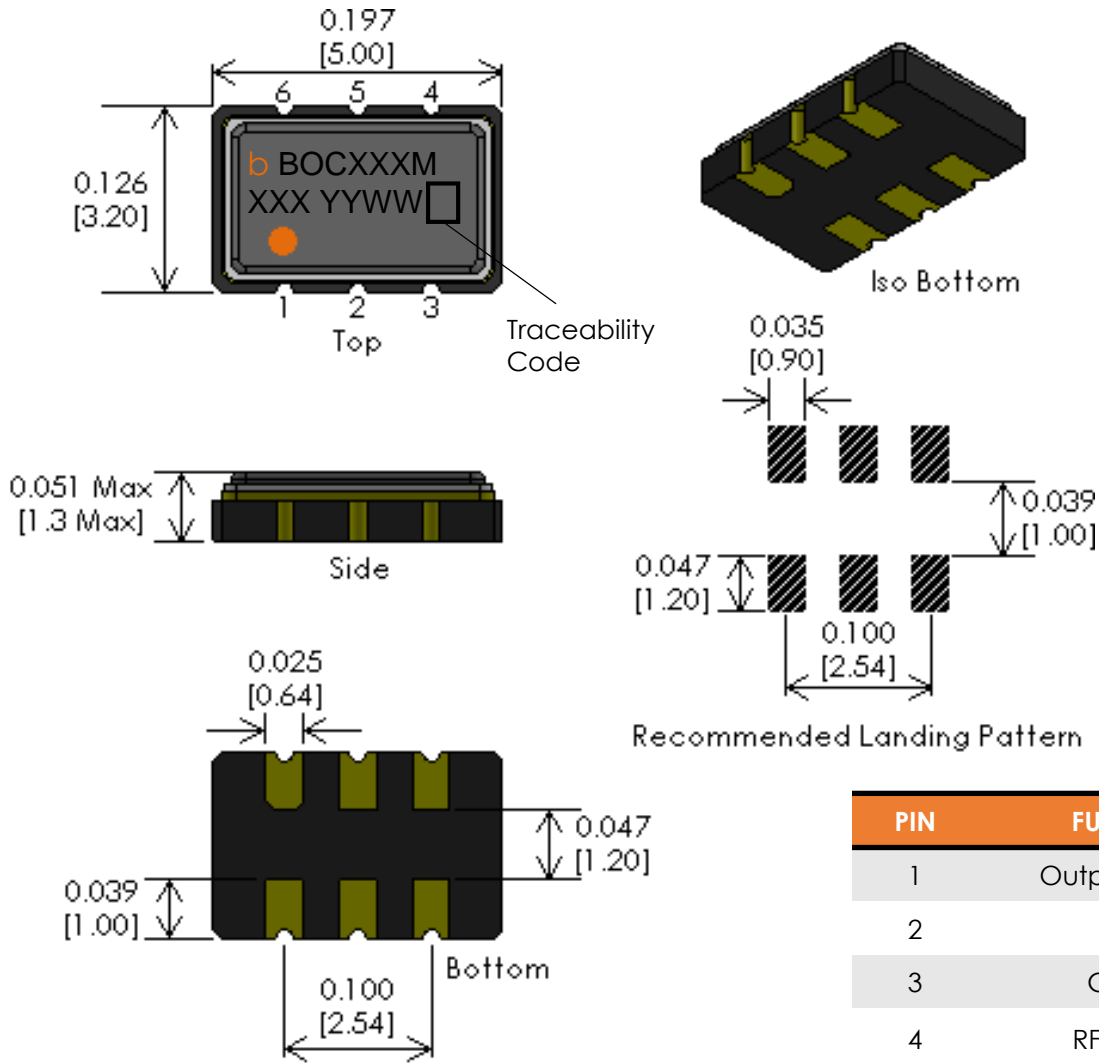
Performance Specifications

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Phase Noise					
SSB Phase Noise (@125 MHz)	Tested at +25°C				
	100Hz		-88		dBc/Hz
	1kHz		-110		dBc/Hz
	10kHz		-118		dBc/Hz
	100kHz		-125		dBc/Hz
	1MHz		-138		dBc/Hz
Phase Jitter	12kHz-20MHz, RMS		0.2	0.5	pSec

Environmental Compliance

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Operating Temperature	Option B	-20		+70	°C
	Option C	-40		+85	°C
Storage Temperature		-55		+125	°C
Solderability	MIL-STD-202 Method 208				
Solvent Resistance	MIL-STD-202 Method 215				
Shock	MIL-STD-202 Method 213 Test Condition I				
Vibration	MIL-STD-202 Method 204 Test Condition C				
Thermal Shock	MIL-STD-202 Method 107 Test Condition B-1				
Seal	MIL-STD-202 Method 112 Test Condition C & D				

Physical Specifications



PIN	FUNCTION
1	Output Control
2	N.C.
3	Ground
4	RF Output
5	RF Output: Complimentary
6	Supply Voltage

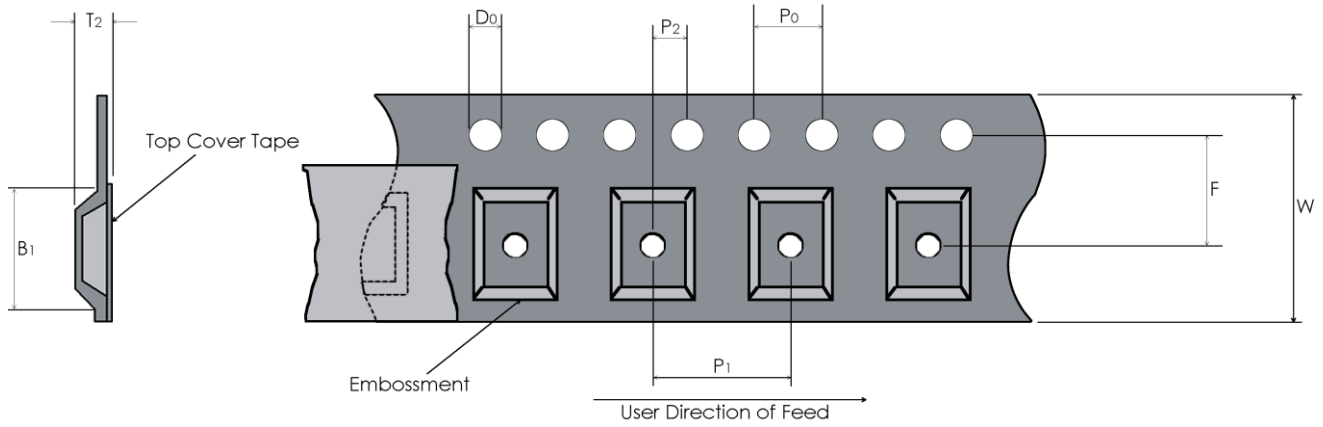
Tolerances (mm) .X = ±0.5, .XX = ±0.2 unless otherwise specified



Notes:
 Connection Pads:
 Gold (10-40 μ in.) over Nickel (100-250 μ in.)
 Weight: 1.5g typ

Tape and Reel

Embossed Carrier Dimensions (8mm, 12mm, 16mm, 24mm Tape Only)



Tape Dimensions (mm)								Reel Dimensions (mm)	
W	F	Do	Po	P1	P2	B1	T2	Outside Dia.	Parts / Reel
12	5.5	1.5	4.0	8	2.0	5.5	1.7	180	1,000

Recommended Reflow Profile

Reflow Profile: in accordance to IPC/JEDEC J-STD-020 (Latest Revision)

Additional Notes:

- This part has been designed for pick and place reflow soldering
- This part may be reflowed once
- This part should not be reflowed in the inverted position

Packaging

Packaging: All packaging must conform to ESD Controls detailed in ANSI/ESD S20.20 (Latest Revision)