



## FEATURES

- ✓ SMD Construction
- ✓ Standard 5X7mm Package Size
- ✓ Mil-Std-202 Compliant

## Crystal Oscillator

#blileytakesyoufurther

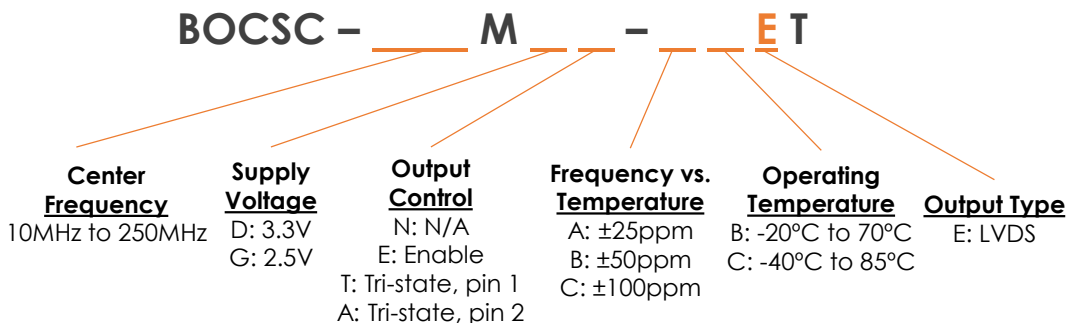
### Description

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	
<b>General</b>					
Frequency Range	No-PLL	10		250	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			45	66	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	
<b>Output Characteristics (LVDS-Differential)</b>					
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%		0.3	0.7	nSec
Duty Cycle		45	50	55	%
Load			100		Ω

## Performance Specifications

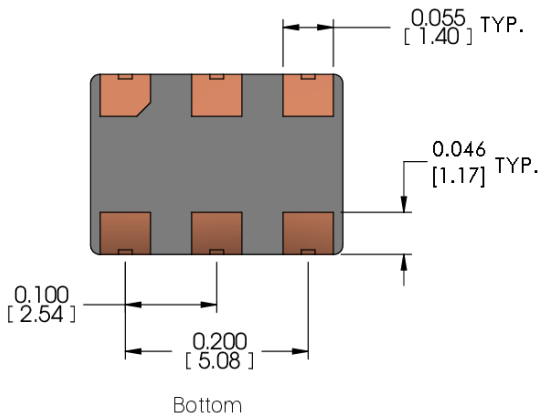
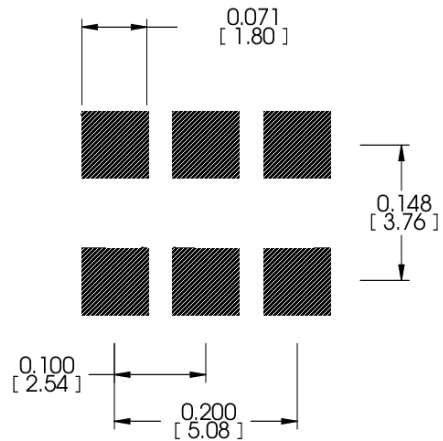
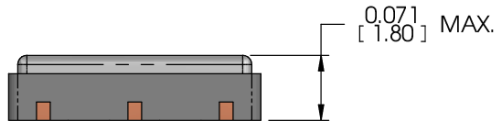
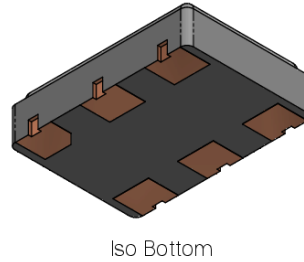
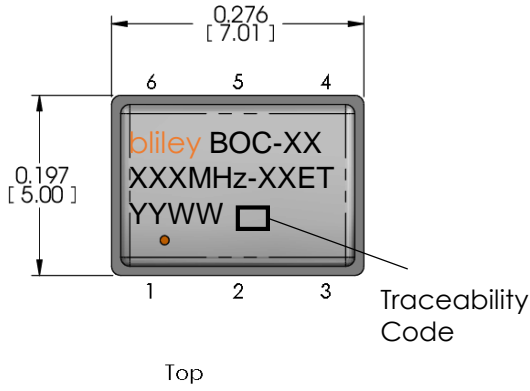
Parameter	Conditions	Values	Unit
Phase Noise		TYP	
SSB Phase Noise (@125 MHz)	Tested at +25°C		
	100Hz	-88	dBc/Hz
	1kHz	-110	dBc/Hz
	10kHz	-118	dBc/Hz
	100kHz	-125	dBc/Hz
	1MHz	-138	dBc/Hz
Phase Jitter	12kHz-20MHz, RMS	0.2	1.0 pSec

## 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				

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# Physical Specifications



Recommended Landing Pattern

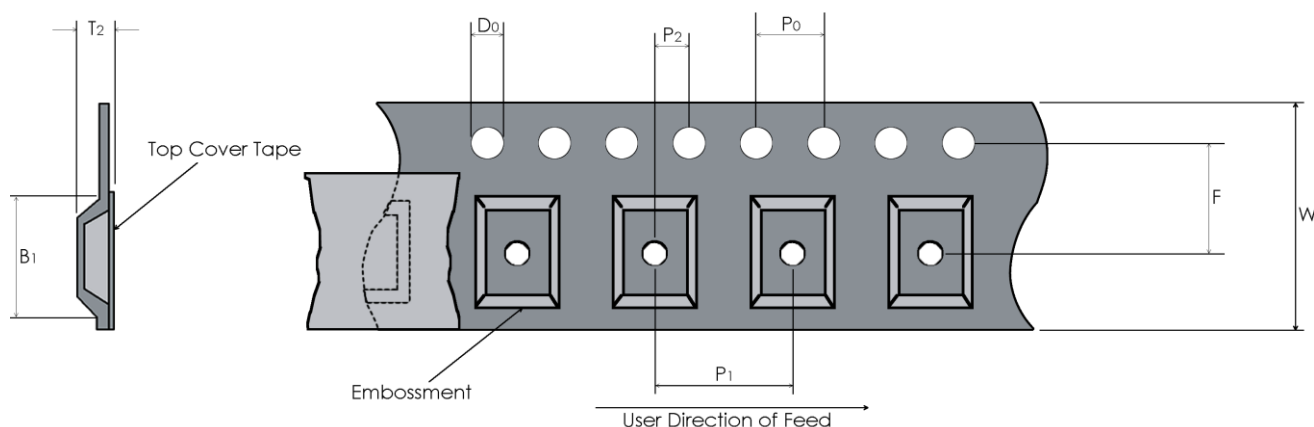
PIN	FUNCTION
1	Tri-state/N.C.
2	Tri-state/N.C.
3	Ground
4	RF Output
5	RF Output: Complimentary
6	Supply Voltage

Tolerances (mm) .X = ±0.5, .XX = ±0.20 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
16	7.5	1.5	4.0	8	2.0	7.6	2.4	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)