

ISSUE 1; April 2016

Description

- Statek's high shock, low current LSCHG oscillators, available in tight frequency tolerances, consist of a Statek miniature quartz crystal and a CMOS/TTL compatible hybrid circuit in a ceramic package. Each crystal used in the LSCHG oscillator is pre-qualified before assembly through electrical tests and characterisation over temperature.
- SM1 Gold Plated (RoHS)
- SM5 Solder Dipped (RoHS)
- Please note that all data is only valid at 25°C unless otherwise stated.

Frequency Parameters

- Frequency 100.0kHz to 200.0kHz
- Frequency Tolerance $\pm 100.00\text{ppm}$
- Ageing $\pm 3\text{ppm}$ max per year
- Please Note: The frequency stability does not include the calibration tolerance. Positive variations may be small compared to negative variation.
- Supply Voltage Variation: $\pm 3\text{ppm/V}$ max
- Load Variation: $\pm 1\text{ppm}$ max ref 10% change in load

Electrical Parameters

- Supply Voltage 3.3V $\pm 10\%$
- Please Note: Lower voltages and calibration tolerances tighter than 100ppm may be available, please contact one of our sales offices.
- Absolute Maximum Supply Voltage Range: -0.5V to 7V

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C
- 55 to 125°C

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF
- Output Levels:
 - VoH 2.8V min
 - VoL 0.2V max

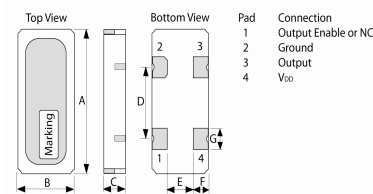
Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: up to 50,000G peak 1ms, half sine
- Vibration: 10G rms, 10-2000Hz

Manufacturing Details

- Process Temperature: 260°C for 20sec max

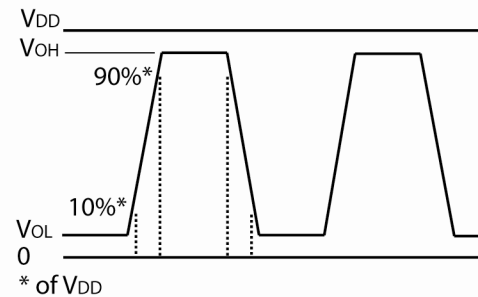
Outline (mm) SM1 = Gold Plated (RoHS)



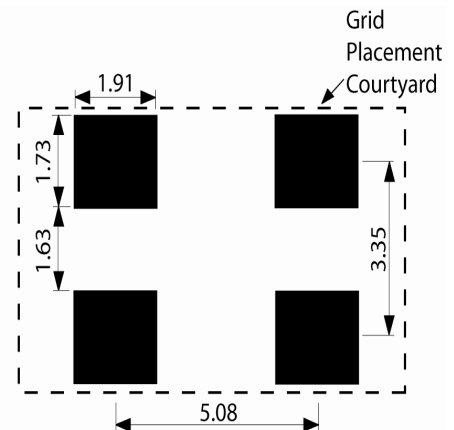
DIM	TYPICAL		MAXIMUM	
	inches	mm	inches	mm
A	0.400	10.16	0.405	10.29
B	0.180	4.57	0.185	4.70
C*	0.065	1.65	0.070	1.77
D	0.200	5.08	0.205	5.21
E	0.080	2.03	0.085	2.16
F	0.050	1.27	0.058	1.47
G	0.055	1.40	0.063	1.60

Termination material is Au over Ni (SM1), solder dip (SM5) also available.
 *SM1 Termination; SM5 = 0.075in. (1.91mm) Max.

Wave Form



Suggested Land Pattern



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Ordering Information

- Frequency*
Model
Termination Variant*
Pad 1 Function*
Tolerance
Temperature Range*
- Example:
100kHz LSCHG-3-SM1
NC 100 -70 to 70C

Compliance

- RoHS Status (2011/65/EU) Compliant
- REACh Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel Tape and reel, 16mm tape, 7" or 13" reels
Pack Size: 1,000
- Pack Style: Tray Tray Pack
Pack Size: 100

Electrical Specification - maximum limiting values 3.3V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
100.0kHz	200.0kHz	-10 to 70	-	0.03	50	40/60
		-40 to 85	-	0.03	50	40/60
		-55 to 125	-	0.03	50	40/60

This document was correct at the time of printing; please contact your local sales office for the latest version.

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