

ISSUE 1; April 2016

### Description

- Hermetically sealed high shock, low current clock oscillator 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 characterization 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
- Frequency Tolerance  $\pm 100.00\text{ppm}$
- Ageing  $\pm 3\text{ppm max per year}$
- Supply Voltage Variation:  $\pm 3\text{ppm/V max}$
- Load Variation (ref  $\pm 10\%$  change):  $\pm 1\text{ppm max}$

### Electrical Parameters

- Supply Voltage 5.0V  $\pm 10\%$
- 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 Compatability CMOS
- Drive Capability 15pF//10M $\Omega$
- Output Levels:  
VoH 4.8V min  
VoL 0.2V max

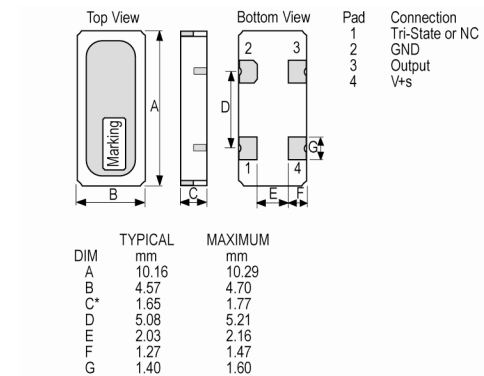
### Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: Up to 50,000G peak, 1ms, 1/2 sine
- Vibration: 10G RMS, 10-2000Hz

### Manufacturing Details

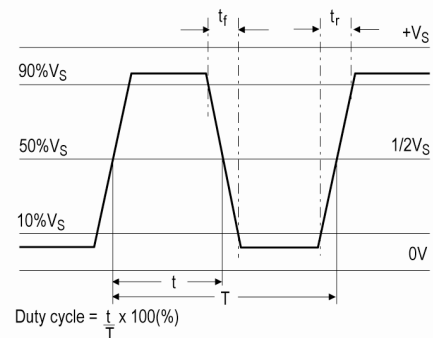
- Process Temperature: 260°C for 20sec max

### Outline (mm) SM1 = Gold Plated (RoHS)

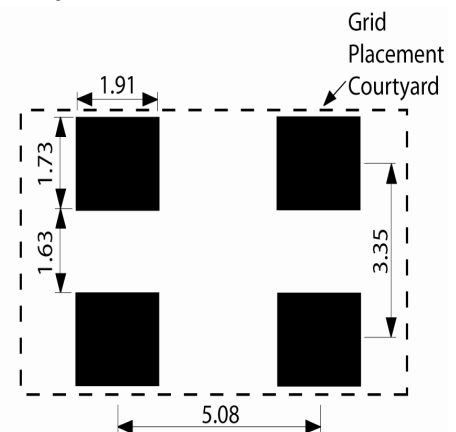


Termination material is Au over Ni (SM1), solder dip (SM3 & SM5) also available.  
\*SM1 Termination; SM3, SM5 = 1.91mm max.

### Wave Form



### Solder Pad Layout



### Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

## Ordering Information

- Frequency  
Model\*  
Supply Voltage  
Termination Variant\*  
Pad 1 Function\*  
Frequency Tolerance  
Operating Temperature Range\*
- Terminations:  
SM1 - Gold (RoHS)  
SM3 - Solder Dipped (non RoHS)  
SM5 - Solder Dipped (RoHS)
- Example:  
100.0kHz LSCHG-5-SM1  
TS 100 -10 to 70C

## Compliance

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

## Packaging Details

- Pack Style: Tray      Tray pack  
Pack Size: 100
- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

### Electrical Specification - maximum limiting values 5.00V ±10%

Frequency	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
100.0kHz	-55 to 125	±0.00	0.015	25	40/60%
	-40 to 85	±0.00	0.015	25	40/60%
	-10 to 70	±0.00	0.015	25	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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