Crystal Clock Oscillator Specification

HFXO 2.5V

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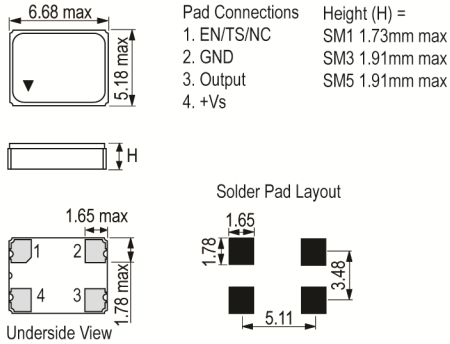
Description

- Statek's high shock HFXO 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 HFXO oscillator is pre-qualified before assembly through electrical tests and characterization over temperature.
- -A-SM1 5000G, Gold Plated (lead free)
- -A-SM5 5000G, Solder Dipped (lead free)
- -B-SM1 10000G, Gold Plated (lead free)
- -B-SM5 10000G, Solder Dipped (lead free)
- -C-SM1 20000G, Gold Plated (lead free)
- -C-SM5 20000G, Solder Dipped (lead free)
- -D-SM1 30000G, Gold Plated (lead free)
- -D-SM5 30000G, Solder Dipped (lead free)
- -F-SM1 50000G, Gold Plated (lead free)
- -F-SM5 50000G, Solder Dipped (lead free)
- -G-SM1 75000G, Gold Plated (lead free)
- -G-SM5 75000G, Solder Dipped (lead free)
- Please note that all data is only valid at 25°C unless otherwise stated.



Outline (mm) -A-SM1 = 5000G, Gold Plated (lead free)



Frequency Parameters

Frequency	220.0kHz to 100.0MHz
Frequency Tolerance	±10.00ppm to ±100.00ppm
Tolerance Condition	@ 25°C
Frequency Stability	±10.00ppm to ±100.00ppm
Ageing	±5ppm max in 1st year

Electrical Parameters

- Supply Voltage 2.5V ±5%
- Absolute Maximum Supply Voltage: -0.5V to 7.0V
  Note: the supply voltage range is -0.5V to 4.0V for some products.

Operating Temperature Ranges

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

Output Details

Output Compatability	CMOS
Drive Capability	15pF

Environmental Parameters

- Shock: 0.5ms, 1/2 sine up to 75000G
- Vibration: 20G, 10Hz-2000Hz, swept sine
- Storage Temparature Range: –55 to 125°C

Manufacturing Details

- Maximum Process Temperature: 260°C for 20 seconds max

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Ordering Information

- Minimum required*
  Frequency*
  Model*
  Termination Variant*
  Output Compatiblity
  Frequency Tolerance (@25°C)*
  Frequency Stability (over operating temperature range)*
  Operating Temperature Range*
  Pad 1 Function*
  Shock Requirement*
- Example
  40.0MHz HFXO 2.5V-A-SM1
  CMOS ±10ppm ±20ppm –10 to 70C NC
- Shock Level Options:
  A = 5000G
  B = 10000G
  C = 20000G
  D = 30000G
  F = 50000G
  G = 75000G
- Termination Options:
  SM1 = Gold plated
  SM3 = Solder Dipped (non RoHS)
  SM5 = Solder Dipped (Pb free)

Compliance

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

Packaging Details

- Pack Style: Tray Supplied on a tray
  Pack Size: 1
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
  Pack Size: 1,000

Electrical Specification - maximum limiting values 2.5V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
220.00kHz	100.0MHz	-10 to 70	±10.0	-	10	40/60%
		-40 to 85	±20.0	-	10	40/60%
		-55 to 125	±40.0	-	10	40/60%

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