

# CXO-M Military Oscillator 1.250MHz to 70.0MHz

ISSUE 5; 19 OCTOBER 2004

## Delivery Options

- Please contact our sales office for current leadtimes

## Output Compatibility

- HCMOS/TTL
- Tri-state HCMOS/TTL
- Drive Capability: 10TTL

## Package Outline

- Statek's 6.5 x 5.0 x 1.6mm SMD device. Available in 5V and 3.3V non tri-state or tri-state versions

## Terminations

- SM1 - Gold over Nickel
- SM3 - Solder dipped

## Standard Frequency Stabilities

- Please see Electrical Specification table overleaf

## Operating Temperature Ranges

- C = -10 to 70°C
- I = -40 to 85°C
- M = -55 to 125°C

## Storage Temperature Range

- -55 to 125°C

## Environmental Specification

- Shock: 3000g peak, 0.3ms, 1/2 sine
- Vibration: 20g rms 10-2000Hz random

## Tri-state Operation

- Pad 1 normally high (internal pull-up resistor)
- Tri-state type  
Pad 1 logic '0'; pad 3 high impedance  
Pad 1 logic '1'; pad 3 Output
- Non Tri-state type  
Pad 1 logic '1' or not connected, pad 3 Output

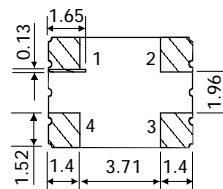
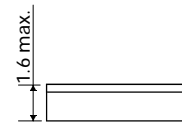
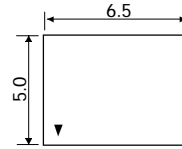
## Solder Conditions

- For typical soldering conditions, please see the relevant pages in Applications Notes

## Marking

- Statek Logo
- Frequency
- Date Code (Year/Week)
- Pad 1 indicator

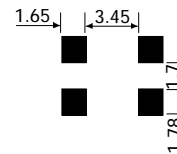
## Outline in mm



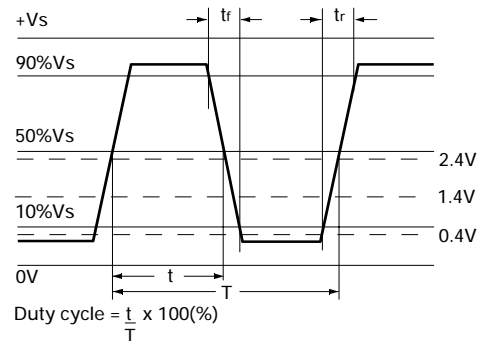
## Pad Connections

1. Enable/Disable
2. GND
3. Output
4. +Vs

## Solder pad layout



## Output Waveform - HCMOS/TTL



**Minimum Order Information Required**

- Frequency + Model Number + Load + Enable + Termination + Frequency Tolerance @ 25°C + Frequency Stability Over Operating Temperature Range + Operating Range

**Electrical Specification – maximum limiting values**

Frequency Range	Frequency Tolerance @25°C±2°C	Supply Current (typical)	Supply Voltage	Operating Temperature Range	Frequency Stability Available Over Operating Temperature		Rise Time(t <sub>r</sub> )	Fall Time (t <sub>f</sub> )	Duty Cycle	Model Number
					Minimum	Maximum				
1.25 to 24.0MHz	A = ±100ppm B = ±1000ppm C = ±10000ppm	12mA	5.0V±0.5V	-10 to 70°C	±10ppm	±50ppm	6ns	6ns	40/60%	CXO-M
				-40 to 85°C	±20ppm	±100ppm				
				-55 to 125°C	±30ppm	±100ppm				
> 24.0 to 30.0MHz	A = ±100ppm B = ±1000ppm C = ±10000ppm	16mA	5.0V±0.5V	-10 to 70°C	±10ppm	±50ppm	6ns	6ns	40/60%	CXO-M
				-40 to 85°C	±20ppm	±100ppm				
				-55 to 125°C	±30ppm	±100ppm				
> 30.0 to 40.0MHz	A = ±100ppm B = ±1000ppm C = ±10000ppm	20mA	5.0V±0.5V	-10 to 70°C	±10ppm	±50ppm	6ns	6ns	40/60%	CXO-M
				-40 to 85°C	±20ppm	±100ppm				
				-55 to 125°C	±30ppm	±100ppm				
> 40.0 to 70.0MHz	A = ±100ppm B = ±1000ppm C = ±10000ppm	25mA	5.0V±0.5V	-10 to 70°C	±10ppm	±50ppm	6ns	6ns	40/60%	CXO-M
				-40 to 85°C	±20ppm	±100ppm				
				-55 to 125°C	±30ppm	±300ppm				

**Ordering Example** 50.0MHz CXO-M 10 T SM1 A 50 C

Frequency \_\_\_\_\_

Model No \_\_\_\_\_

Load: 10 = 10 TTL \_\_\_\_\_

Enable: T = Tri-State; N = Non tri-state \_\_\_\_\_

Termination \_\_\_\_\_

Frequency Tolerance @ 25°C \_\_\_\_\_

Frequency Stability Over Operating Temperature Range \_\_\_\_\_

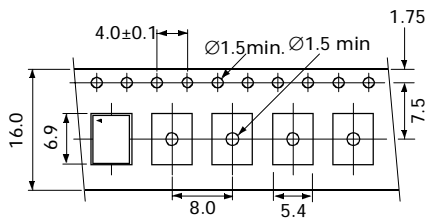
Operating Temperature Range: C = -10 to 70°C; I = -40 to 85°C; M = -55 to 125°C \_\_\_\_\_

Please note: Above parameters are measured at @25°C with a 10MΩ and 10pF load at @5.0V

**3.3V HCMOS version, other frequency tolerances and higher frequencies are available so please contact our sales office**

SURFACE MOUNT  
SPX08

**Outline in mm - Tape**



**Outline in mm - Reel**

