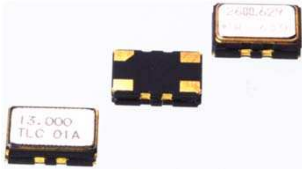


# Temperature Compensated Crystal Oscillator (TCXO/VCTCXO)

High stability  
Ceramic Package  
One chip IC

Pb-free : RoHs compliance



## CO-TS2520 , CO-TS2520V

### ■ Typical applications

- Mobile Telecommunication, Cellular Phone, Base Station, GPS, PHS

### ■ Features

- 10.000 to 50.000 MHz.
- Low Phase Noise, Low Current Consumption.
- Ultra miniature type essential in the high density PCB.
- Package : Metal lid + Ceramic package.
- 2.5×2.0×1.0mm

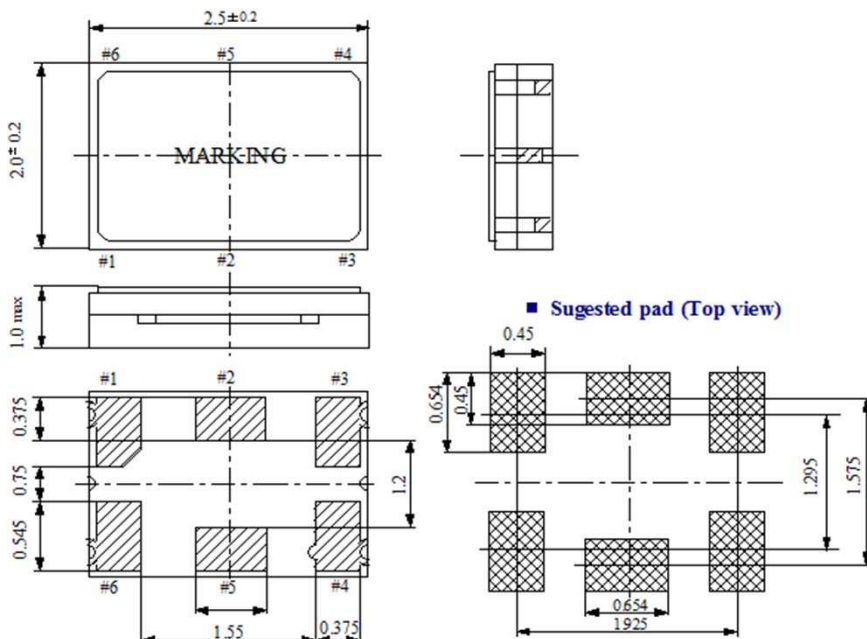
### ■ Specifications

Model		CO-TS2520	CO-TS2520V
Available Frequency Range		10.000 to 50.000 MHz	
Frequency Stability	Tolerance (at 25°C)	±0.5 ppm	
	Temperature (Ref. to 25°C)	±1.5 ppm / ±2.0 ppm / ±2.5 ppm / 3.0 ppm (-30 to +80°C) ±1.5 ppm / ±2.0 ppm / ±2.5 ppm / 3.0 ppm (-40 to +85°C)	
	Supply Voltage Change	±0.2 ppm	
	Load Change	±0.2 ppm	
Power Supply Voltage		+2.5V, +2.8V, +3.0V, +3.3V	
Power Supply Current		2.0 mA max.	
Output	Voltage	0.8 Vp-p min.	
	Load	10 KΩ // 10 pF	
	Waveform	Clipped Sine Wave (DC Coupled)	
External Control Function		—	±5.0 to ±15 ppm / +1.5±1.0V DC
Storage Temperature Range		-40 to +85°C	
Phase Noise		-135 dBc/Hz max (at 1KHz)	

### ■ Environmental Characteristics

Description	Specification
Aging (at 25°C)	±1.0 ppm max / Year (at 25°C)
Fall Shock	Test : 3 time free drop onto concrete board from 150cm high Result: ±1.0 ppm max.
Vibration Shock	Test : Freq. 5-500Hz, Amplitude 1.5mm, Test time 4cycles/XYZ axis Result: ±1.0 ppm max.
Solderability	Test : Immersed into solder bath at 235±° C for 3 sec. Result: More than 95%
Humidity	Test : 90 to 95%RH at 60±3° C±500 hours Result: ±1.0 ppm max.
Reflow Heat	Test : 2 times of IR reflow soldering in accordance with reflow temperature profile as per the document No.:TR-0531 Result: ±1.0 ppm max.

### ■ Outline Drawing & Suggested Pad



TERMINAL	CONNECTION	
	TCXO	VCTCXO
#1	NC or GND	Vcont
#2	NC or GND	NC or GND
#3	GND	GND
#4	OUTPUT	OUTPUT
#5	NC or GND	NC or GND
#6	Vcc	Vcc