

# TTS14NS/VS

## Temperature Compensated Crystal Oscillator (TCXO)

### ◆ Feature

Reflow solderable, Ceramic SMD package base offers superior flatness.  
Compact (5.0×3.2), lowest height, light weight, and low Current consumption type.  
Suitable for Cell phone, WiMax, 802.11n, 802.11r.



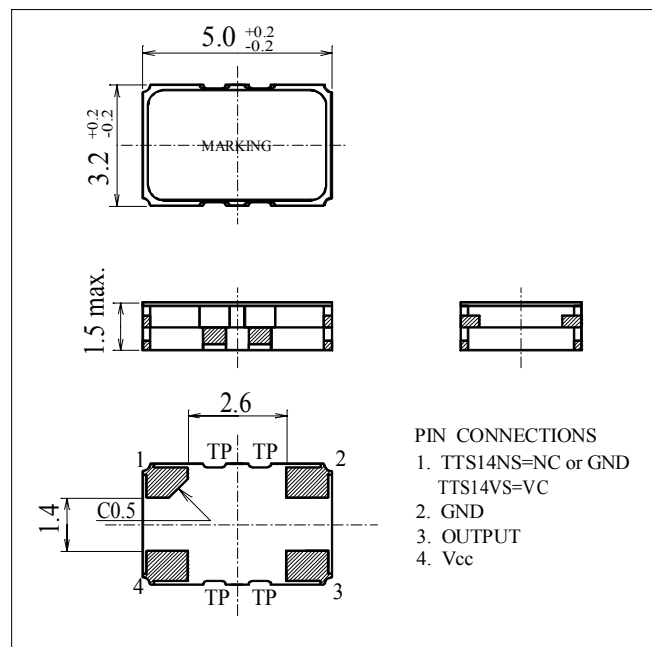
### ◆ Specification

Size	5.0 × 3.2 × 1.5 (mm)	
Model Name	NS	VS
Output Frequency	10.0 ~ 38.0(MHz)	
Supply Voltage	+3.0 ± 5% (V)	
Supply Current	2.0max. (mA)	
Output Level	0.8 min. (Vp-p)	
Load	10 (kΩ) // 10 (pF) ± 10%	
Frequency Stability	Table - 1	
Storage Temperature Range	-40 ~ 90 (°C)	
Voltage Controlled Range	---	±5~±15(ppm):VC=1.5(V)±1.0(V) at Vcc=3.0V
Phase Noise	Table - 2	

### ◆ Table 1 Frequency Stability

	Frequency Stability
Temperature Range (-30~+85 °C)	± 2.5 (ppm)
Supply Voltage (3.0V ± 5%)	± 0.2 (ppm)
Load (10kΩ // 10pF ± 5%)	± 0.2 (ppm)
Initial Frequency Tolerance (at 25 ± 2 °C)	± 1.0 (ppm)
Aging (year)	± 1.0 (ppm)

### ◆ Outline



### ◆ Table 2 Phase Noise

Frequency Offset (Hz)	Phase Noise (dBc/Hz)
1	-57
10	-87
100	-112
1k	-137
10k	-150
100k	-150

fs=19.2000MHz