

Package : TTS14NSB-A11 / TTS14VSB-A11

Temperature Compensated Crystal Oscillator (TCXO /VC-TCXO)

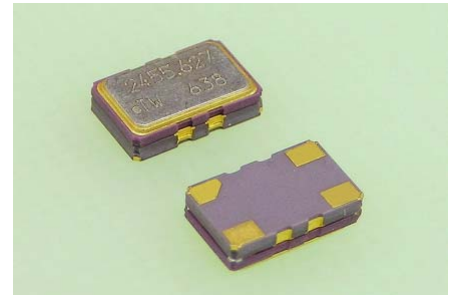
◆ Feature

Ultra-compact (5.0×3.2), lowest height, light weight and low current consumption type . Low frequency is available.Using built in 1/2 frequency divide down function.Reflow solderable, Ceramic SMD package base offers superior flatness. RoHS compliant.

◆ **Applications** Cell phone, Base station, GPS, and mobile radio application.

◆ Specifications

Note : Modified specifications are available upon request for specific applications.



Item	Symbol	Specifications		Conditions
		TTS14NSB-A11 (TCXO)	TTS14VSB-A11 (VC-TCXO)	
Output frequency	f_0	10.0 MHz to 40.0 MHz		
Supply voltage	Vcc	3.0V ± 5%		Range = +2.3V to +3.7 V
Current consumption	Icc	2.0 mA max.		Vcc=3.0V , 10 kOhm//10 pF
Output voltage	Vpp	0.8 V min.		NOTE 1) DC coupling
Load	Load_R,C	10 kOhm // 10 pF		
Frequency Stability				
/Frequency tolerance	f_{tol}	± 1.0×10 ⁻⁶ max.		After reflow , at 25 °C
/ temperature characteristics	f_{0_TC}	± 2.0×10 ⁻⁶ max.		-30 °C to +85 °C
/ voltage coefficient	f_{0_Vcc}	± 0.2×10 ⁻⁶ max.		at 3.0V ± 5%
/load coefficient	f_{0_Load}	± 0.2×10 ⁻⁶ max.		at (10kOhm // 10pF) ± 5%
/ Frequency ageing	f_{age}	± 1.0×10 ⁻⁶ max.		1 year , at 25 °C
Frequency control range	f_{cont}	---	±5 to ±15×10 ⁻⁶	Vc=1.5V±1.0V , Positive polarity

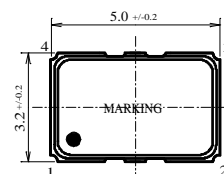
NOTE 1) DC-cut capacitor of output is not put in TCXO. Please add DC-cut capacitor (1,000pF) in oscillator output line.

◆ Phase Noise

Frequency Offset (Hz)	Phase Noise (dBc/Hz)
100	-110 typ.
1k	-130 typ.
10k	-145 typ.
100k	-145 typ.

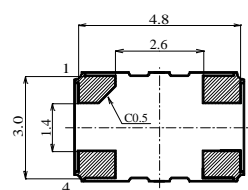
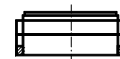
at $f_0=26.000\text{MHz}$ (25±2°C)

◆ Outline

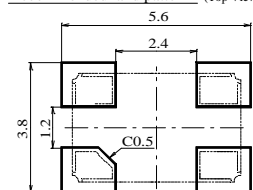


Pin Connections

- 1 : Vc (VSB)
- GND(NSB)
- 2 : GND
- 3 : OUTPUT
- 4 : Vcc



Recommended land pattern (Top View)



unit (mm)

The ordering number will be obtained separately by customer's requirement.