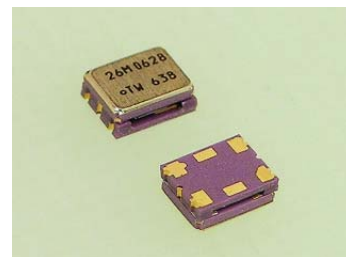


# Package : TTS27NSB-A11 / TTS27VSB-A11

## Temperature Compensated Crystal Oscillator (TCXO /VC-TCXO)

### ◆ Feature

Ultra-compact (2.5×2.0), 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
		TTS27NSB-A11 (TCXO)	TTS27VSB-A11 (VC-TCXO)	
Output frequency	$f_0$	10.0 MHz to 40.0 MHz		
Supply voltage	Vcc	3.0V ± 5%		+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 <sup>-6</sup> max.		After reflow , at 25 °C
/ temperature characteristics	$f_{0-T_C}$	± 2.0×10 <sup>-6</sup> max.		-30 °C to +85 °C
/ voltage coefficient	$f_{0-Vcc}$	± 0.2×10 <sup>-6</sup> max.		at 3.0V ± 5%
/load coefficient	$f_{0-Load}$	± 0.2×10 <sup>-6</sup> max.		at (10kOhm // 10pF) ± 5%
/ Frequency ageing	$f_{age}$	± 1.0×10 <sup>-6</sup> max.		1 year , at 25 °C
Frequency control range	$f_{cont}$	---	±5 to ±15×10 <sup>-6</sup>	Vc=1.5V±1.0V , Positive polarity

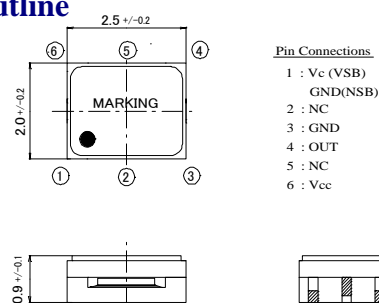
NOTE 1) DC-cut capacitor of output is not put in TCXO. Please add DC-cut capacitor (1,000pF) in oscillator output line.

### ◆ Phase Noise

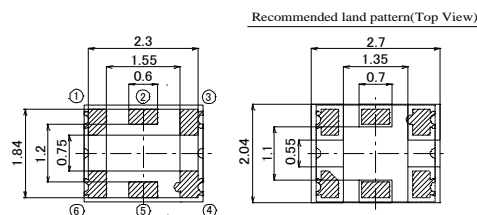
Frequency Offset (Hz)	Phase Noise (dBc/Hz)
100	-110 typ.
1k	-130 typ.
10k	-145 typ.
100k	-145 typ.

at  $f_0=26.000\text{MHz}$  (25±2°C)

### ◆ Outline



Pin Connections  
 1 : Vc (VSB)  
 GND(NSB)  
 2 : NC  
 3 : GND  
 4 : OUT  
 5 : NC  
 6 : Vcc



unit ( mm )

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

**TEW** TEW AMERICA, INC.,

<http://www.tewamerica.com>

Specifications subject to change without notice. Jan / 2011