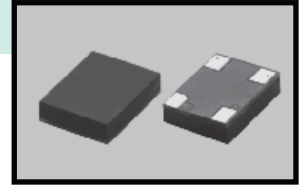


## VC/TCXO (Clipped Sinus)

# TX7050-1S, TX7050-1SV



### General Description

Ceramic packaged VC/TCXO with good mechanical reliability

### Features

Very tight stability :  $\pm 0.5\text{ppm}$   
 Wide range of supply voltage  
 Very low Phase noise and Jitter

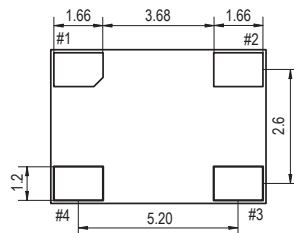
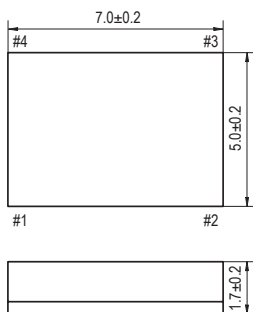
### Main applications

GPS, WiMAX, Cellular phones, wireless, telecomm.

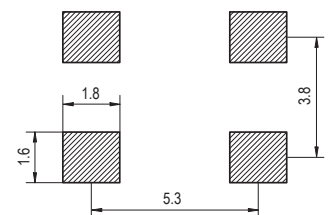
## Electrical characteristics

Item	Values	
Part number	TX7050-1S	TX7050-1SV
Output Waveform	Clipped Sinus	
Frequency range	10 - 40 MHz	
Supply voltage	+1.8V , +2.5V , +2.8V , +3.0V , +3.3V	
Control Voltage	-	+0.9V $\pm 0.8\text{V}$ [Vdd 1.8V] 1/2Vdd $\pm 1.0\text{V}$ DC [Vdd 2.5,3.3V]
Initial frequency tolerance @ +25°C	$< \pm 1.5\text{ppm}$ [Vcontrol = +1.5V]	
Frequency stability	vs temp. vs Vdd vs Load	up to $< \pm 0.5\text{ppm}$ max over -30/+85°C [ref. @ +25°C] $< \pm 0.2\text{ppm}$ @ Vdd $\pm 5\%$ $< \pm 0.2\text{ppm}$ @ 10k $\Omega$ // 10pF $\pm 10\%$
Aging	$< \pm 1.0\text{ppm}$ / year @ +25°C	
Operating temp. range	-30°C / +75°C, -30°C / +85°C , -40°C / +85°C	
Storage temp. range	-40°C / +85°C	
Current consumption	1.5mA max [10-30MHZ] , 1.7mA max [30-40MHZ]	
Output	0.8Vp-p min.	
Output load	10k $\Omega$ // 10pF	
Output waveform	Clipped Sinus [DC cut]	
Frequency adjustment	-	$\pm 8\text{ppm}$ to $\pm 13\text{ppm}$ [Vdd 1.8V] $\pm 9\text{ppm}$ to $\pm 15\text{ppm}$ [Vdd 2.5,3.3V]
Slope	-	positive
Harmonic	-5dBc max	
Start up time	2ms	
SSB Phase noise	-133dBc/Hz typ. @ 1KHz offset	
Short term stability	$\pm 1\text{ppb}$ max [allan variance tau=1s]	

## Dimensions



PIN	CONNECTION	
	TCXO	VC-TCXO
	SXO-4075CS	SXO-4075CSV
1	NC or GND	Vcontrol
2	GND	
3	OUTPUT	
4	V <sub>DD</sub>	



# TX7050-1S, TX7050-1SV

## Part Number Generator

**TX7050-1S    A    15    A    S    T    -    010.000000    xxx**  
 0            1            2            3            4            5                            6                            7

**0 : Type**  
TX7050-1S  
TX7050-1SV

**1 : Vcc**  
F = +1.8V  
E = +2.5V  
A = +2.8V  
B = +3.0V  
C = +3.3V  
D = +5.0V

**2 : Stability in temperature**  
05 < ±0.5ppm  
10 < ±1.0ppm  
15 < ±2.0ppm  
25 < ±2.5ppm

**3 Op. temp. range**  
B = -30/+75  
C = -30/+85  
A = -40/+85

**4 : Output**  
S = Clipped sinus

**5 : Pulling range**  
T = TCXO  
8 > ±8.0ppm  
10 > ±10ppm

**6 : Frequency (MHz)**  
□□□.□□□□□□  
max 10 digits including comma

**7 : Customized code**  
Note : factory use