



**Features and Benefits**

Frequency range: 5-52MHz  
 Supply voltage: 2.5V or 3.3V  
 Steady current: 7.5mA Max  
 Output waveform: CMOS or Clipped Sinewave  
 Frequency stability vs. operating temperature:  $\pm 0.28$ PPM  
 Phase noise@10KHz: -154dBc/Hz  
 Operating temperature: -40°C to +85°C  
 Size: 5.0x3.2x1.85mm

**Typical Applications**

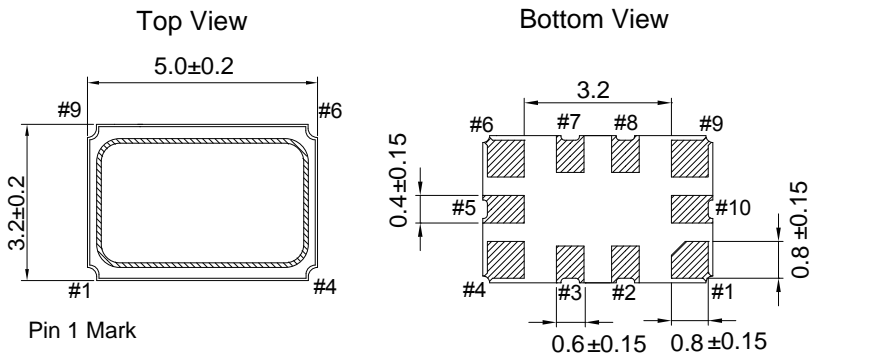
Stratum 3  
 Femtocell  
 Base Stations

**Description**

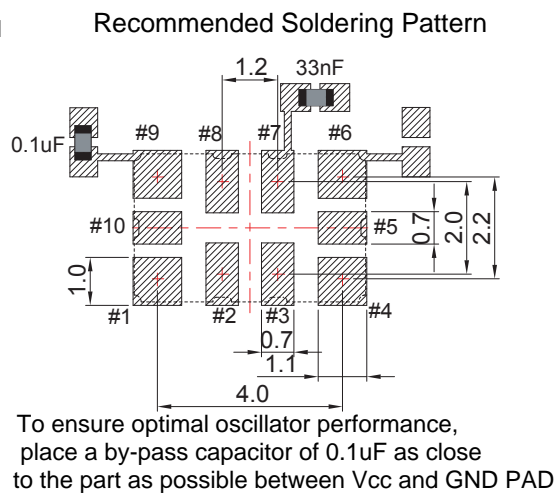
TCXO5300BM-STR3 is the high stability stratum3 TCXO. The frequency stability can less than  $\pm 0.28$ PPM. It can be widely used in the portable communication devise.

**Mechanical Drawing & Pin Connections**

Drawing No: A8888\$ \$!%



PIN#	FUNCTION
1	VCON:VC-TCXO NC:TCXO
2	NC
3	NC
4	GND
5	Tri-state
6	Fout
7	VC Filter
8	NC
9	Vcc
10	GND



Unit in mm  
 1mm = 0.0394 inches



**Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f <sub>0</sub>		5		52	MHz	
<b>RF Output</b>							
Output Waveform			CMOS				
Load				15		pF	
Output Level High			0.9*V <sub>cc</sub>			V	
Output Level Low					0.1*V <sub>cc</sub>	V	
Duty Cycle			45		55	%	
Output Waveform			Clipped Sine				
Load				10k/10pF		Kohm/pF	
Output Level			0.8			Vp-p	
Start Time					5	ms	
<b>Power Supply</b>							
Voltage	V <sub>cc</sub>	±5%		2.5/3.3		V	See ordering section
Current		CMOS output			7.5	mA	
		Clipped sine output			5	mA	
<b>Control Voltage</b>							
Control Voltage	V <sub>cc</sub>		0.5		2.5	V	
Pulling Range			±5			ppm	
Vc Impedance			100			Kohm	
<b>Frequency Stability</b>							
Versus Temperature		Ref. to((Fmax+Fmin)/2)			±0.28	ppm	See ordering section
Overall, 20 Years					±4.6	ppm	Note1
Holdover Stability					±0.37	ppm	Note2
Phase Noise @10MHz		@100Hz		-130		dBc/Hz	
		@1KHz		-145			
		@10KHz		-154			
<b>Environmental Conditions</b>							
Operating temperature range	-40°C to +85°C (see ordering section)						
Storage temperature range	-55°C to +125 °C						

Note1: Including calibration @ 25°C, supply voltage Vcc±5%, load ±10%, reflow soldering, 20 years aging and frequency stability over temperature.

Note2: Including 24hours aging, supply voltage Vcc±5% and frequency stability over temperature.



### Ordering Information

TCXO5300BM-STR3-XXMHz	-	01	02	03	04
Group		Code			

For example, TCXO5300BM-STR3-10MHz-2222 denotes the VÔXO has the following specifications:

Frequency: 10MHz  
 Temperature Range: -40°C to +85°C  
 Stability Over Temperature: ±0.28 ppm  
 Supply Voltage: 3.3V  
 Output Waveform: Clipped sine

01	Temperature Range
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C

02	Frequency Stability
Code	Specification
1	±0.14 ppm*
2	±0.28 ppm

\*Only for -20°C to +70°C

03	Supply Voltage
Code	Specification
1	2.5 V
2	3.3 V

04	Output Waveform
Code	Specification
1	CMOS
2	Clipped Sine

Note: This is the general datasheet, for reference only.  
For the detail datasheet, pls contact us.