



Features and Benefits

- Frequency range: 5-52MHz
- Supply voltage: 2.5V or 3.3V
- Steady current: 8.0mA Max
- Output waveform: CMOS or Clipped Sinewave
- Frequency stability vs. operating temperature: ± 0.28 PPM
- Phase noise@10KHz: -154dBc/Hz
- Operating temperature: -40°C to +85°C
- Size: 7.0x5.0x1.9mm

Typical Applications

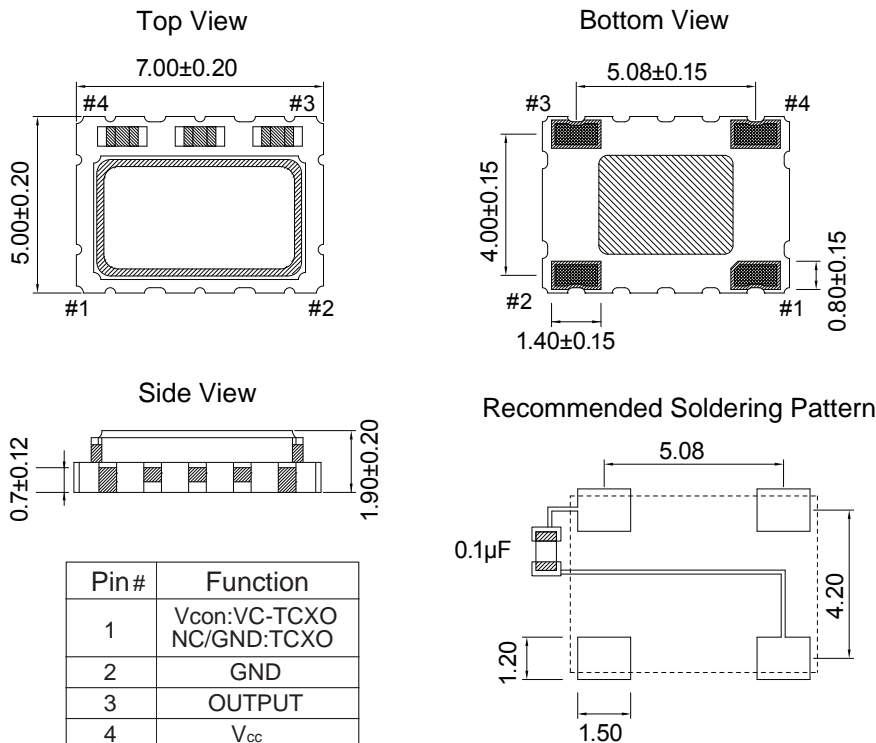
- Stratum 3
- Femtocell
- Base Stations

Description

TCXO7500BM01-STR3 is the high stability stratum3 TCXO. The frequency stability can less than ± 0.28 PPM. It can be widely used in the portable communication devise.

Mechanical Drawing & Pin Connections

Drawing No: MD220032-1



Pin#	Function
1	Vcon:VC-TCXO NC/GND:TCXO
2	GND
3	OUTPUT
4	V _{CC}

Unit in mm
1mm = 0.0394 inches

To ensure optimal oscillator performance, place a by-pass capacitor of 0.1uF as close to the part as possible between Vcc and GND PAD



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f ₀		5		52	MHz	
RF Output							
Output Waveform			CMOS				
Load				15		pF	
Output Level High			0.9*V _{cc}			V	
Output Level Low					0.1*V _{cc}	V	
Duty Cycle			45		55	%	
Output Waveform			Clipped Sine				
Load				10k//10pF		Kohm/pF	
Output Level			0.8			Vp-p	
Start Time					5	ms	
Power Supply							
Voltage	V _{cc}	±5%		2.5/3.3		V	See ordering section
Current		CMOS output			8.0	mA	
		Clipped sine output			5.0	mA	
Control Voltage							
Control Voltage	V _c		0.5		2.5	V	
Pulling Range			±5.0			ppm	
V _c Impedance			100			Kohm	
Frequency Stability							
Versus Temperature		Ref. to((Fmax+Fmin)/2)			±0.28	ppm	See ordering section
Overall, 20 Years					±4.6	ppm	Note1
Holdover Stability					±0.32	ppm	Note2
Phase Noise @10MHz		@100Hz		-130		dBc/Hz	
		@1KHz		-145			
		@10KHz		-154			
Environmental Conditions							
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 V_{cc}±5%, load ±10%, reflow soldering, 20 years aging and frequency stability over temperature.

Note2: Including 24hours aging, supply voltage V_{cc}±5% and frequency stability over temperature.



Ordering Information

TCXO7500BM01-STR3-XXMHz	-	01	02	03	04
Group		Code			

For example, TCXO7500BM01-STR3-10MHz-2222 denotes the TCXO 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.