



Features and Benefits

- Frequency range: 32MHz
- Supply voltage: 3.3V
- Steady current: 6mA Max
- Output waveform: CMOS
- Frequency stability vs. operating temperature: ± 0.28 PPM
- Operating temperature: -40°C to $+85^{\circ}\text{C}$
- Size: 5.0x3.2x1.85mm
- Package type: SMD



Typical Applications

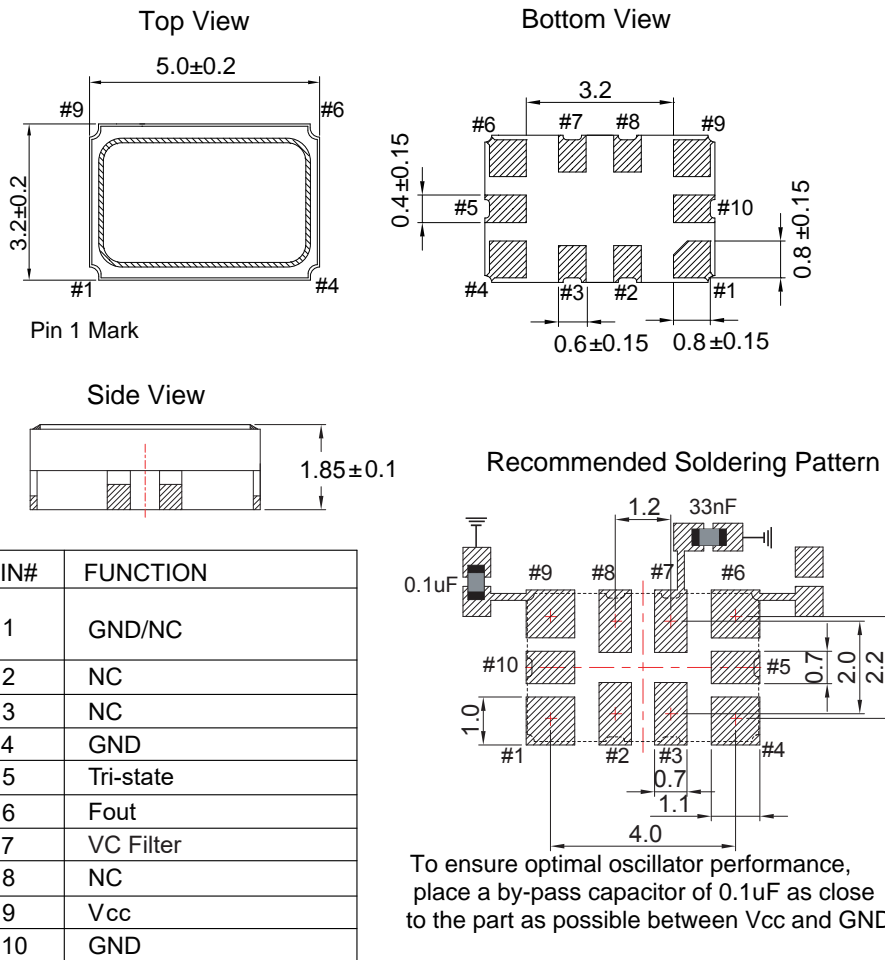
- Stratum 3
- Femtocell
- Base Stations

Description

TCXO5300BM-32MHz-A-V is the high precision TCXO. The frequency stability can be less than ± 0.28 PPM. It can be widely used in the portable communication device.

Mechanical Drawing & Pin Connections

Drawing No: MD220030-1



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			32		MHz	
RF Output							
Output Waveform			CMOS				
Output High			2.97			V	
Output Low					0.33	V	
Output Load					15	pF	
Duty Cycle		Measured at 50% V _{cc} trigger level	45	50	55	%	
Rise/Fall Time		CMOS logic output at 10% to 90%			6	nS	
Power Supply							
Voltage	V _{cc}		2.97	3.3	3.63	V	
Current		At maximum supply voltage			6	mA	
OE (Tri-State)		Output enable	0.8V _{cc}			V	High: Enable frequency output
		Output disable and High-Impedance			0.32V _{cc}	V	Low: Disable frequency output
Startup Time					10	mSec	
Frequency Stability							
Vs. Temperature		Referenced to the midpoint between minimum and maximum frequency value.			±0.28	ppm	
Vs. Supply Voltage		±5%, @25°C			±0.2	ppm	
Aging		1 st year, @25°C			±1	ppm	
Tolerance		@25°C, before reflow			±0.5	ppm	
Environmental Conditions							
Operating temperature range		-40°C to +85°C					
Storage temperature range		-40°C to +85°C					
Thermal Shock		MIL-STD-883H,1010.8 Condition B. -55°C, 125°C; soak time is 10 mins, with total 200 cycles					
Damp Heat		JESD22-A101. 85°C /85% RH for 500 hrs					
Low Temp Storage		IEC 60068-2-1. -55°C for 500 hrs					
Drop Test		IEC 60068-2-32. 70, 80, 100cm, each height for 3 times on hardboard					
Mechanical Shock		MIL-STD-883H,2002.5 Condition B. 1500g, half-sine, 0.5ms, each axis for 3 times.					
Vibration Test		MIL-STD-883H,2007.3 Condition A. 10~2000Hz, 1.52mm, 20g, each axis for 4 hrs					