

Features and Benefits

10.000000 MHz
 Temp. stability less than +/- 0.5 ppm
 -40 °C to +85 °C operation
 +3.3V supply ; Voltage-controlled

Typical Applications

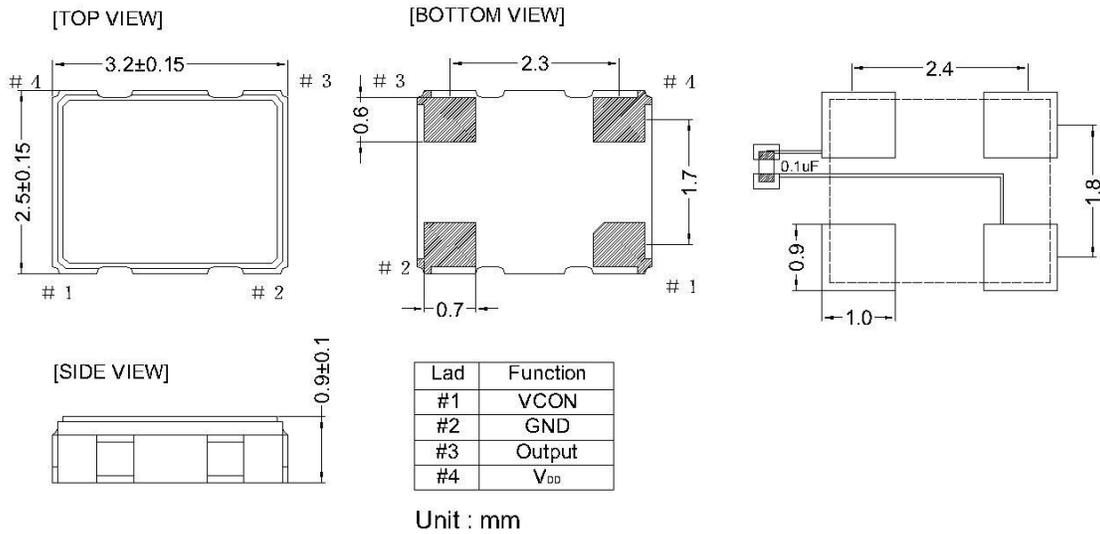
Beidou Navigation Reference Oscillator
 SATCOM SYSTEMS (ON THE MOVE ; MOBILE)
 Mobile Radio

Description

The TCXO3225T-10MHz-B-V design technology offers a new generation IC compensation with better phase noise and lower ultimate stability over operating temperature.

Mechanical Drawing & Pin Connections

Drawing No:
D13016-1



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	F _{nom}			10.000		MHz	
Output waveform		DC Coupled clipped sine wave	Clipped sine wave				
Output voltage level			0.8		2.0	Vp-p	
Output load			10Kohm // 10pF				
Start up time					2.0	ms	
Power Supply							
Supply voltage			3.135	3.30	3.465	V	
Supply current		At maximum supply voltage			2.0	mA	
Frequency Control* (Electronic + Mechanical)							
Control voltage range			0.5	1.5	2.5	V	
Pulling range		Referenced to Vcon at 1.5V	+/-5.0			ppm	
Vcon input impedange		Measured between Vcon and GND pin	500			kOhm	
Linearity					10.0	%	
Frequency Stability							
Nominal frequency tolerance		Frequency at 25°C, 1 hour after 2 times reflow	-2.0		+2.0	ppm	
Frequency stability vs. temperature		Referenced to the midpoint between minimum and maximum frequency value	-0.5		+0.5	ppm	
Temperature range		The operating temperature range over which the frequency stability is measured	-40		+85	°C	
Frequency stability vs. supply voltage		supply voltage varied +/-5% at 25°C	-0.2		+0.2	ppm	
Frequency stability vs. load		+/-10% load change	-0.2		+0.2	ppm	
Aging		first year at 25°C	-1.0		+1.0	ppm	
SSB Phase noise (at 25°C) @10.000000 MHz		10 Hz offset		-95		dBc/Hz	
		100 Hz offset		-120			
		1 KHz offset		-140			
		10 KHz offset		-148			
		100 KHz offset		-150			
Environmental Conditions							
Vibration test		MIL-STD-883 2007 Condition A: 10~2000Hz, 1.52mm, 20G, each axis for 4 hrs					
Thermal shock		MIL-STD-883 1010 Condition B: -55°C, 125°C; Soak time is 10 mins, with total 200 cycles					
Mechanical shock		MIL-STD-883 2002 Condition B: 1500G, half-sine, 0.5ms, each axis for 3 times					
Storage temperature		-40°C to +85°C					