



Features and Benefits

High frequency stability (up to $\pm 0.5\text{ppm}$ over -40°C to $+85^\circ\text{C}$)
Sinewave Output
SMD Miniature package

Typical Applications

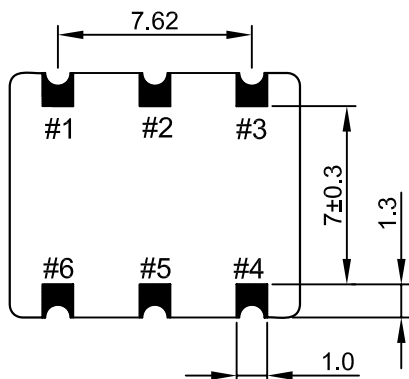
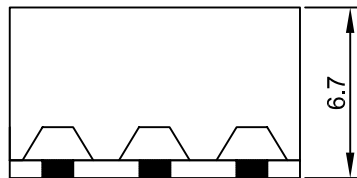
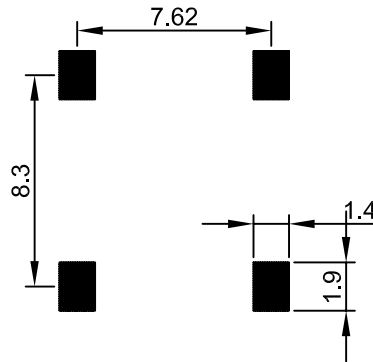
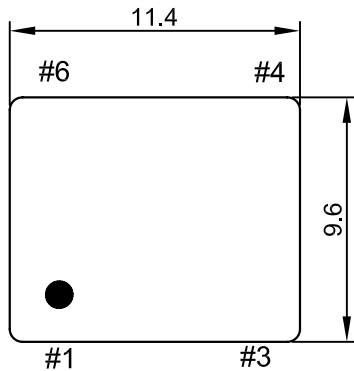
5G Repeater
Link and micro cells
Low noise microwave

Description

TCXO912BTLG_Sine offers wide temperature operation from -40°C to $+85^\circ\text{C}$ with outstanding frequency stability and low phase noise performance.

Mechanical Drawing & Pin Connections

Drawing No: MD190005-1



Pin Connection

#1	Control Voltage for VC-TCXO GND for TCXO
#2	N.C.
#3	GND
#4	Output
#5	N.C.
#6	Vcc

Unit in mm
1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}		50-150			MHz	
Standard Frequency			50,75,100,125			MHz	
Output			Sinewave				
Output power			3-6			dBm	
Output load			50			ohm	
Power Supply							
Voltage	V _{cc}			3.30		V	Or 5.0V
Current Consumption					45	mA	Without load
Electronic Frequency Control (EFC)			ΔF > ±5 ppm positive slope				
Control voltage			+1.50 V ±1.0 V +2.50 V ±2.0 V by 5.0 V				
Frequency Stability							
Versus temperature		-40°C to 85°C, ref to (fmax+fmin)/2	-1		+1	ppm	±0.5ppm on request
Tolerance at 25°C			0		+1.0	ppm	
Versus ±5% change in supply voltage		Ref to frequency at nominal supply	-0.05		+0.05	ppm	
Versus ±10% change in load		Ref to frequency at nominal load	-0.05		+0.05	ppm	
Sub harmonics					-60	dBc	
First Year Aging		@40°C	-1.0		+1.0	ppm	
G Sensitivity			0.5 ppb/g per axis, Max. 0.25 ppb/g per axis, Typ on request				
Phase noise (typ.) @125MHz		100 Hz		-105		dBc/Hz	
		1000 Hz		-128			
		10 KHz		-150			
		100 KHz		-170			
		1000 KHz		-175			
Short-Term Stability	ADEV	Tau = 1 second			1.0	E-10	
Environmental Conditions							
Operating temperature range	-40°C to 85°C						
Storage temperature range	-55°C to 105°C						
Reflow profiles as per IPC/JEDEC J-STD-020C	≤ 245 °C over 10 s max.						