



### Features and Benefits

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

### Typical Applications

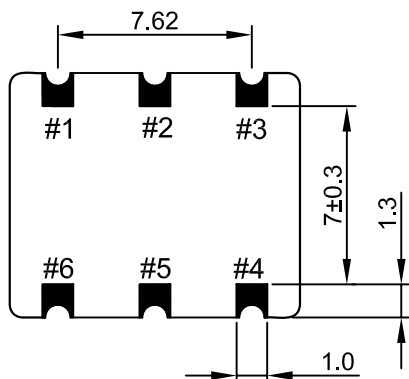
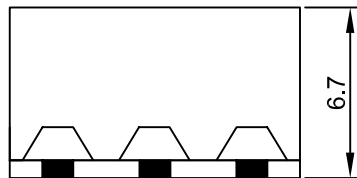
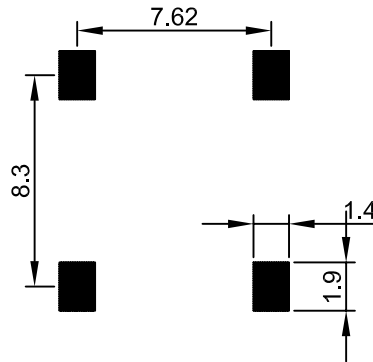
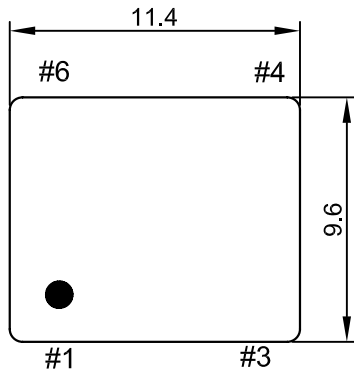
5G Repeater  
Link and micro cells  
Low noise microwave

### Description

TCXO912BTLG\_HCMOS offers wide temperature operation from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with outstanding frequency stability and low phase noise performance.

### Mechanical Drawing & Pin Connections

Drawing No: MD19000) -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 <sub>nom</sub>		50 to 150			MHz	
Standard Frequencies			50,75,100,125			MHz	
Symmetry			50 % ±5%				
Output load			10 pF Max.				
(LV)HCMOS	VOH		> 0.9 x V <sub>cc</sub>				
	VOL		< 0.1 x V <sub>cc</sub>				
<b>Power Supply</b>							
Voltage	V <sub>cc</sub>			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				
<b>Frequency Stability</b>							
Versus temperature		-40°C to 85°C, ref to (f <sub>max</sub> +f <sub>min</sub> )/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	
<b>Environmental Conditions</b>							
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.					