

## Dynamic Engineers Inc.

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### **Features and Benefits**

Frequency range: 100MHz Supply voltage: 3.3V Steady current: 30mA Max Output waveform: Sinewave Frequency stability vs. operating temperature: ±0.5ppm Aging: ±1.0ppm per year Phase noise@100KHz: -178dBc/Hz Operating temperature: -40°C to +85°C Size: 14.3x9.3x6.2mm

#### **Typical Applications**

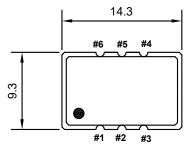
5G Repeater Link and micro cells Low noise microwave

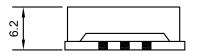
#### **Description**

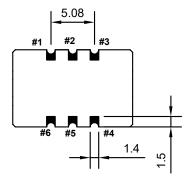
TCXO914BT-100MHz-B offers wide temperature operation from -40°C to +85°C with outstanding frequency stability and low phase noise performance.

#### **Mechanical Drawing & Pin Connections**

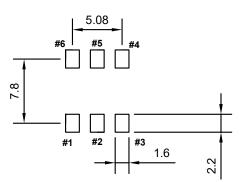
Drawing No: MD190003-3







Solder pattern



#### **PIN Function**

#1	GND or N.C.				
#2	N.C. or GND				
#3	GND				
#4	RF Output				
#5	N.C. or GND				
#6	Vcc				

unit in mm 1mm = 0.0394 inches

Dynamic Engineers, Inc.

Rev. 1

Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside, such as data tables and araphs without notification to potential customers who may have earlier revisions in their possession.



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# **Specifications**

Oscillator		Sym	Condition		Value		Unit	Note
Specification				Min.	Typ.	Max.		
Operational Frequency		Fnom		-	100		MHz	
Sinewave	Output Level Output Load			4	50	7	dBm ohm	
Power Sup					50		OHH	
Voltage		V <sub>cc</sub>			3.30		V	
•						20		
Current Consumption						30	mA	
Start-up time						10	mS	
Frequency	Stability							
Versus temperature			-40°C to +85°C, ref to (fmax+fmin)/2			±0.5	ppm	
Tolerance at +25°C			· · ·	0		+1.0	ppm	
Versus ±5% change in supply voltage			Ref to frequency at nominal supply			±0.05	ppm	
Versus ±10% change in load			Ref to frequency at nominal load			±0.05	ppm	
Sub harmonics					-75	-60	dBc	
First Year Aging			@40°C			±1.0	ppm	
G Sensitivity			per axis			0.2	ppb/g	
Phase noise (typ.) @100MHz			10Hz		-78			
			100 Hz		-105			
			1000 Hz	-	-127		dBc/Hz	
		10 KHz 100 KHz		-150 -178				
Short-Term	Stability	ADEV	Tau = 1 second		-170	1.0	E-10	
Environme	ntal Conditions							
	emperature range	-40°C to +85°C						
	orage temperature range -55°C to +105°C							
Reflow profi	Reflow profiles as per ≤ 245 °C over 10 s max.   IPC/JEDEC J-STD-020C ≤ 245 °C over 10 s max.							

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