

Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

Features and Benefits

Frequency range: 25MHz Supply voltage: 3.3V Current: 2.2mA Output waveform: CMOS Frequency stability vs. temperature: ±0.5PPM Aging: ±1PPM first year Phase noise: -157dBc/Hz@100KHz: Operating temperature: -40°C to +85°C Size: 5x3.2x1.7 mm

Typical Applications

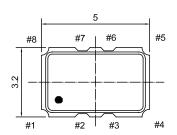
Portable Wireless Communications Mobile Test Equipment Radio SATCOM System

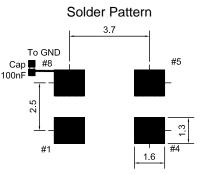
Description

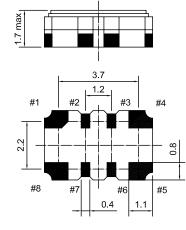
 $\mathsf{TCXO5300BT}\text{-}25\mathsf{MHz}\text{-}\mathsf{B}\text{-}\mathsf{V}$ is the low phase noise and small size TCXO. It can be widely used in the portable communication devise.

Mechanical Drawing & Pin Connections

Drawing No: MD150017-10







Unit in mm 1mm = 0.0394 inches

Pin Fu	nction
#1	Vc(EFC)
#2	N.C.
#3	N.C.
#4	GND
#5	Output
#6	N.C.
#7	N.C.

Vcc

Dynamic Engineers, Inc.

Rev. 1

#8

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	C.	Condition	Value			Unit	Note
Specification	Sym	Condition	Min.	Тур.	Max.		
Operational Frequency	f ₀			25		MHz	
RF Output							
Output Waveform				CMOS			
Output Level High			0.9*V _{cc}			V	
Output Level Low					$0.1*V_{cc}$	V	
Output Load					15	pF	
Power Supply	T		ľ	1		· · · · · ·	
Voltage	V _{cc}	±5%		3.3		V	
Current				2.2		mA	
Frequency Control	1		r	1			
Control Voltage Range			0.5	1.5	2.5	V	
Tuning Range		Positive slope	±5			ppm	
EFC Input Impedance			100			Kohm	
Frequency Stability				-			
Frequency tolerance ex. Factory		@+25°C	0		1.0	ppm	
Vs. Temperature		Reference to (FMAX+FMIN)/2			±0.5	ppm	
Vs. Supply Voltage Changes		±5% Referenced to frequency at nominal supply			±0.1	ppm	
Vs. Load Changes		±5% Referenced to frequency at nominal supply			±0.1	ppm	
Vs. Aging@+40°C		1 st year			±1.0	ppm	
G-sensitivity		Per axis			2.0	ppb/g	
Phase Noise		10 Hz		-75			
		100 Hz		-110		dBc/Hz	
		1 KHz		-135			
		10 KHz		-154			
		100 KHz		-157			
Environmental Condition							
Operating temperature ran		-40°C to +85°C					
Storage temperature range	е	-55°C to +105 °C					
Reflow Profiles as per IPC/JEDEC J-STD-020C		≤260°C over10 sec. Max.					

Note: Unless otherwise specified conditions are @+25 °C