

## Dynamic Engineers Inc.

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

### **Features and Benefits**

Better than ± 200 ppb from -40°C to +85°C

With respect to +25°C reading 20.000000 MHz low noise cmos output 3.3V supply; 6.0 mA max. ± 5 ppm min. pull with 1.5V ± 1.0V control

### **Typical Applications**

Mobile SATCOM Mobile Radio Harsh Environments Femto-cell

## **Mechanical Drawing & Pin Connections**





#### PIN FUNCTIONS

Pin#	Function				
1	VCON/TRL-STATE				
2	GND				
3	Output				
4	VDD				

Unit : mm

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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**

TCXO Specification Sym	Sum	Condition	Value			Unit	Noto
	Condition	Min.	Тур	Max.	Unit	Note	
Operational Frequency Range	f <sub>0</sub>			20.000000		MHz	
CMOS		Logic Level High	2.97			V	
		Logic Level Low			0.33	V	
		Output Load Capacitance			15.0	pF	
		Duty Cycle	45	50	5	%	
		Rise and Fall Times			8.	ns	
		Start Time			2.	ms	
Power Supply							
Voltage	V <sub>CC</sub>		3.130	3.300	3.470	V	
Current Consumption				2.7	6.0	mA	
Frequency versus Voltage							
Pad 1: Frequency Adj.			±5.0			ppm	
Pad 1: Control Voltage			0.5	1.5	2.5	V	
Pad 1: Input Impedance			100			Kohm	
Frequency Stability							
Vs. Temperature	-40°C to +85°C				+/- 200	ppb	With respect to +25C frequency reading
Vs. at 25°C	Initial Accuracy before reflow				+/- 500	ppb	
Vs. +/- 5% Supply Variation	@ 25°C				+/- 300	ppb	
Vs. +/- 10 % Load Variation	@ 25°C				+/- 200	ppb	
Aging							
20 year projected	A	fter 30 Days of Operation					
					+/- 2.50	ppm	20 year Maximum
SSB Phase Noise							
@ 20 MHz		100 Hz		-117	-112		
	1 KHz 10 KHz			-138	-132	dBc/Hz	
				-153	-145		
		100 KHz		-156	-148		

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