

## Dynamic Engineers Inc.

Website: <u>www.DynamicEngineers.com</u> Email: <u>Inquiry@DynamicEngineers.com</u>

### **Features and Benefits**

Frequency range: 26MHz Supply voltage: 3.3V Steady current: 4mA Max Output waveform: Clipped Sinewave Frequency stability vs. operating temperature: ±0.5PPM Operating temperature: -40°C to +85°C Size: 5.0x3.2x1.85mm Package type: SMD TCXO5300BM-26MHz-A-V High Precision 26MHz TCXO\_Temperature Compensated Crystal Oscillator



### **Typical Applications**

Stratum 3 Femtocell Base Stations

#### **Description**

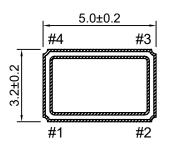
TCXO5300BM-26MHz-A-V is the high precision TCXO. The frequency stability can be less than  $\pm 0.5$ PPM. It can be widely used in the portable communication device.

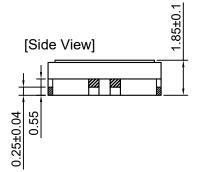
### **Mechanical Drawing & Pin Connections**

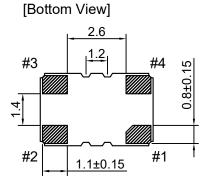
Drawing No: MD

lo: MD250014-1

[Top View]







Pin	Function		
#1	Control Voltage		
#2	GND		
#3	Output	ι	
#4	Supply Voltage	-	

Unit in mm 1mm = 0.039inches

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## **Specifications**

Oscillator	Sym	Condition	Value			Unit Note		
Specification			Min.	Тур.	Max.			
Operational Frequency	f <sub>0</sub>			26		MHz		
RF Output						<u>г</u>		
Output Waveform		DC Coupled clipped sine wave	Clipped sinewave					
Output Level			0.8			Vp-p		
Output Load			10Kohm//10pF					
Power Supply								
Voltage	Vcc		2.97	3.3	3.63	V		
Current		At maximum supply voltage			4	mA		
Startup Time		<u> </u>			10	mSec		
Frequency Control								
Control Voltage Range	Vc		0.5	1.5	2.5	V		
Pulling Range		Referenced to Vc at 1.5V	±5			ppm		
Linearity					10	%		
Frequency Stability					1			
Vs. Temperature		Ref to 25°C			±0.5	ppm		
Vs. Supply Voltage		±5%, @25°C			±0.2	ppm		
Vs. Load		±10%			±0.2	ppm		
Aging		1 <sup>st</sup> year, @25°C			±1	ppm		
Tolerance		@25°C, before reflow			±0.5	ppm		
<b>Environmental Condition</b>	ns							
Operating temperature ran	ige	-40°C to +85°C						
Storage temperature range		-55°C to +125°C						
Thermal Shock		MIL-STD-883H,1010.8 Condition B. -55°C, 125°C; soak time is 10 mins, with total 200 cycles						
Damp Heat		JESD22-A101. 85°C /85% RH for 500 hrs						
Low Temp Storage		IEC 60068-2-1. -55°C for 500 hrs						
Drop Test	IEC 60068-2-32. 70, 80, 100cm,each height for 3 times on hardboard							
Mechanical Shock		MIL-STD-883H,2002.5 Condition B. 1500g, half-sine, 0.5ms, each axis for 3 times.						
Vibration Test		MIL-STD-883H,2007.3 Condition A. 10~2000Hz, 1.52mm, 20g, each axis for 4 hrs						