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

TCXO5300S-26MHz-B-V
High performance SMD TCXO

Features and Benefits

26MHz low consumption CMOS output
3.3V power supply; 6.0mA maximum
-135dBc/Hz @ 1KHz offset

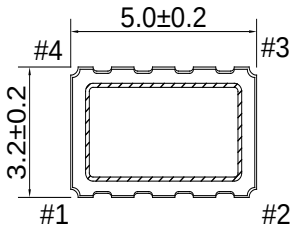
Typical Applications

Mobile Radio
GPS Reference
Beidou Navigation Systems

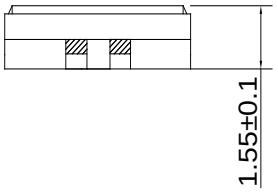
Mechanical Drawing & Pin Connections

Drawing No: MD140026-2

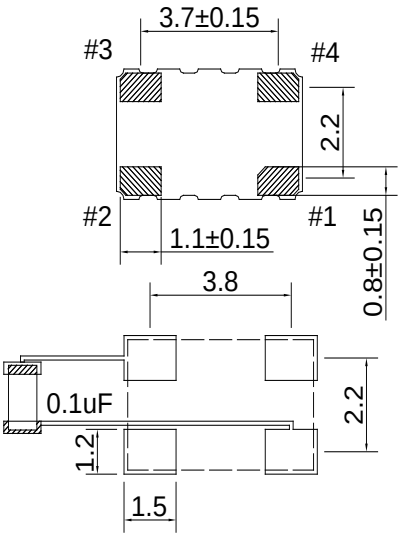
[TOP VIEW]



[SIDE VIEW]



[BOTTOM VIEW]



Recommended soldering pattern

*To ensure optional oscillator performance place a by-pass capacitor of 0.1uF as close to the part as possible between Vdd and GND pads.

PIN FUNCTIONS

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

Unit: mm
1mm=0.039inch

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Specifications

Oscillator Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Nominal Frequency		F_{nom}			26.000000		MHz	
Output	Output Waveform				CMOS			
	Output High (Logic "1")			2.97			V	
	Output Low (Logic "0")					0.33	V	
	Output Load					15	pF	
	Duty Cycle		Measured at 50% VDD trigger level	45	50	55	%	
	Rise and Fall times		CMOS logic output at 10% to 90%			6.0	ms	
	Start Up Time					2.0	ms	
Power Supply								
Supply Voltage		V_{cc}		3.135	3.3	3.465	V	
Supply Current			At maximum supply voltage			6.0	mA	
Frequency Control*								
Control Voltage Range		V_c		0.5	1.5	2.5	V	
Pulling Range			Reference to VCON at 1.5V	+/-5.0			ppm	
Vcon Input Impedance			Measured between VCON and GND pin	100			KOhm	
Linearity						10	%	
Frequency Stability								
VS. Temperature			From -40°C to +85°C Ref to 25°C			±0.28	ppm	
Nominal Frequency Tolerance			Frequency @25°C, 1hour after 2 times reflow.			±2.0	ppm	
VS. Supply Voltage			+/-5%change @25°C			±0.3	ppm	
Load Sensitivity			+-10% load change			±0.2	ppm	
Aging			First year			±1.0	ppm	
Phase noise (typ.)			10Hz		-90		dBc/Hz	
			100Hz		-115		dBc/Hz	
			1KHz		-135		dBc/Hz	
			10KHz		-152		dBc/Hz	
			100KHz		-155		dBc/Hz	

Environmental Conditions		
Parameter	**Reference Std.**	**Test Condition**
Operating temperature range	-40°C to +85°C	
Storage temperature range	-55°C to +125°C	
Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B	1500G, half-sine, 0.5ms, each axis for 3 times
Vibration	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1	10-2000Hz, 1.52mm, 20G, each axis for 4hrs
Thermal Shock	MIL-STD-883 1010 Condition B JESD22-A104 Condition B	-55°C, 125°C; soak time is 10 mins, with total 200 cycles.