



Dynamic Engineers Inc.

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

TCXO7500BM-40MHz-C

IETP: ÁÔÝUÁ

Features and Benefits

40MHz Frequency
3.3V Supply voltage
CMOS Output waveform
 $\pm 0.1\text{ppm}$ Stability Vs -20C --+70C
7x5mm Size
-135dBc/Hz @1KHz phase noise value

Typical Applications

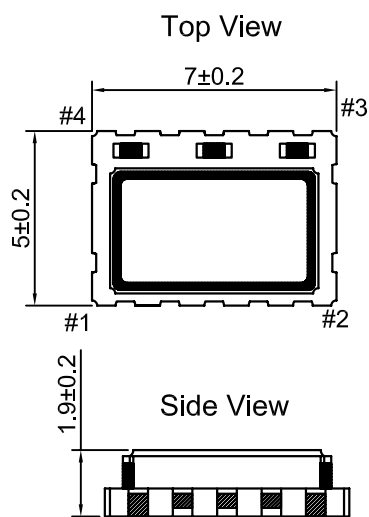
SATCOM System
Cellular Base Stations
Radar Applications

Description

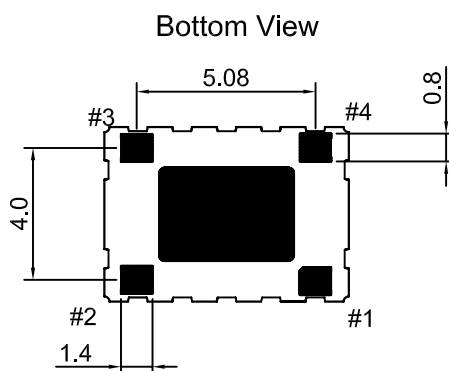
TCXO7500BM-40MHz-C is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD160036-1

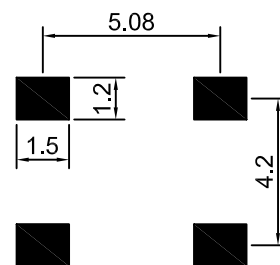


Unit in mm
1mm = 0.0394 inches



Pin	Funttion
#1	N.C/GND
#2	GND
#3	Output
#4	VDD

Recommend Soldering Pattern





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			40		MHz	
RF Output							
Signal Waveform			CMOS				
Load	R _L		15pf				
H-Level Voltage	V _H		90%VDD			V	
L- Level Voltage	V _L				10%VDD	V	
Duty Cycle		Measured at 50% VDD trigger level	45	50	55	%	
Rise and fall times		CMOS logic output at 10% to 90%			6	nS	
Start time					2	mS	
Power Supply							
Supply Voltage	VDD	+/-5%		3.3		V	
Current		At maximum supply voltage			8	mA	
Frequency Stability							
Versus Operating Temperature Range		-20C ---+70C	-0.1		+0.1	ppm	Referenced to the midpoint between minimum and maximum frequency value
Nominal Frequency Tolerance		Frequency at 25 C, 1hour after 2 times reflow.	-2.0		+2.0	ppm	
Versus supply voltage	V _S	±5% change	-0.2		+0.2	ppm	
Aging 1 st Year		at 25 C	-1		+1	ppm	
SSB Phase noise		10Hz		-85		dBc/Hz	
		100Hz		-115		dBc/Hz	
		1kHz		-135		dBc/Hz	
		10kHz		-148		dBc/Hz	
Environmental, Mechanical Conditions							
Operating temperature range	-20°C to +70°C						
Storage temperature range	-40°C to 85°C						
Thermal Shock	MIL-STD-883 1010 Condition B, JESD22-A104 Condition B under -55C , 125C ; soak time is 10 mins,with total 200 cycles						
Vibration Test	MIL-STD-883 2007 Condition A, JESD22-B103 Condition 1 under 10~2000Hz, 1.52mm, 20G, each axis for 4hrs						
Mechanical Shock	MIL-STD-883 2002 Condition B, JESD22-B104 Condition B under 1500G, half-sine, 0.5ms, each axis for 3 times						