



Features and Benefits

- CMOS output
- +2.85V; 4 mA max.
- Less than 1E-10 ADEV @ tau = 1s
- Less than +/- 0.5 ppm over -40°C to +85°C

Typical Applications

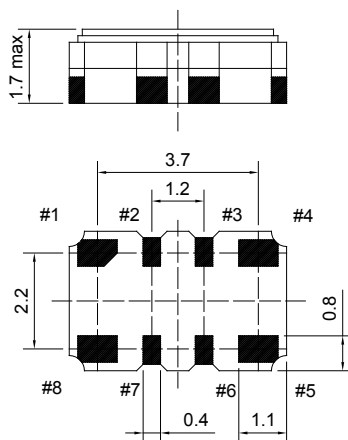
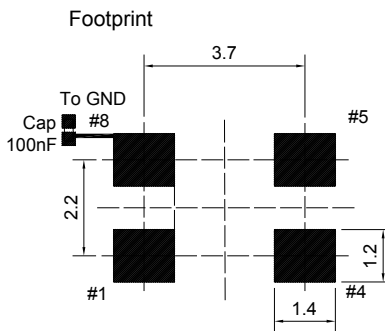
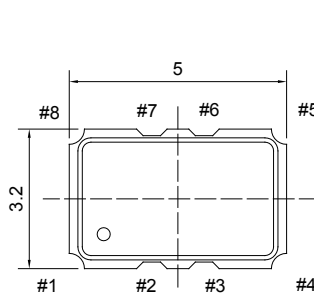
Sensor Module

Description

5 x 3.2 mm SMD TCXO platform optimized for crystal angle and compensation technique to meet the specific stability requirements of ELT (Emergency Locator Transmitter) applications.

Mechanical Drawing & Pin Connections

Drawing No: MD150017-3



Pin Function

#1	Vc(EFC)
#2	Do not connect
#3	Do not connect
#4	GND
#5	Output
#6	Do not connect
#7	Do not connect
#8	Vdc

Unit : mm



Specifications

TCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F _{nom}			26		MHz	
Output Waveform			CMOS				
Output Level High			2.56			V	
Output Level Low					0.28	V	
Output Load		+/-5%			12	pF	
Symmetry (Duty)		@ ½ Vdc	45		55	%	
Rise/Fall Time					3	ns	
Power Supply							
Supply Voltage	V _{cc}		2.71	2.85	2.99	V	
Supply Current					4	mA	
Frequency Control							
Control Voltage			0.5	1.5	2.5	V	
Electronic Frequency Control Range(EFC)			+/-0.8			ppm	Positive slope
EFC Input Impedance			100			Kohm	
Start up Time					2	ms	
Frequency Stability							
VS. Temperature		From -40°C to +85°C Ref. to (F _{MAX} + F _{MIN})/2			+/-0.5	ppm	
Tolerance at +25°C		@+25°C	0		+/-1.0	ppm	
Frequency Slope vs. Temperature		From -40°C to +85°C			0.05	ppm/°C	
VS. Supply Voltage		+/-5% change at 25°C Ref. to frequency at nominal supply			+/-0.2	ppm	
VS. Load Change		+/-10% change at 25°C Ref. to frequency at nominal load			+/-0.1	ppm	
Allan Variance (ADEV)		@ τ = 1s			0.1	ppb	
Year Aging		First year			+/-1.0	ppm	
Phase Noise		@100Hz			-126	dBc/Hz	
		@1KHz			-142		
		@10KHz			-150		
		@100KHz			-155		
Environmental Conditions							
Parameter	Reference Std.		Test Condition				
Operating Temperature range	-40°C to +85°C						
Storage Temperature range	-55°C to +105°C						
Reflow Profiles	IPC/JEDEC J-STD-020C		<=260°C over 10 sec. Max				
Moisture Sensitivity	Level 1(unlimited)						