OCXO2525T-10MHz-B
3.3V OCXO without Voltage Control

Features

Frequency 10 MHz
LVCMOS output
+/- 5 ppb from -40°C to 75°C
25.78 x 25.78 x 12.70 mm leaded package
3.3V supply

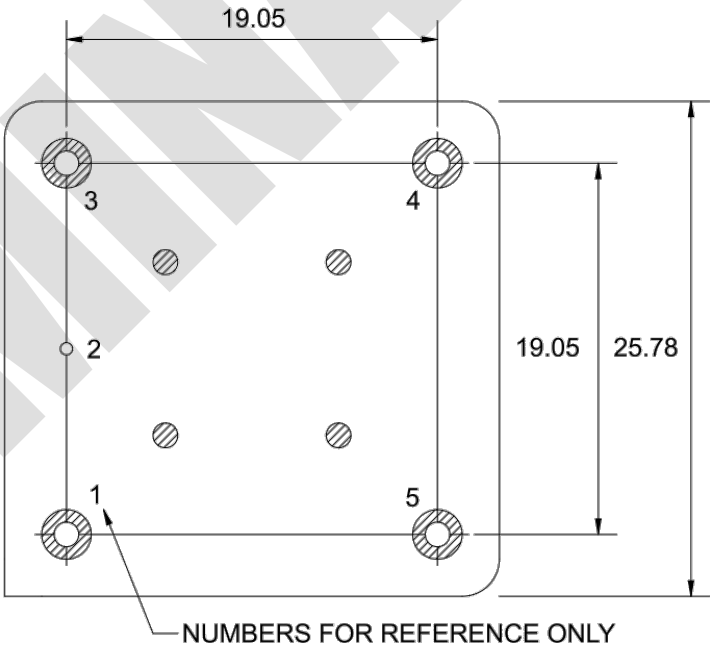
Typical Applications

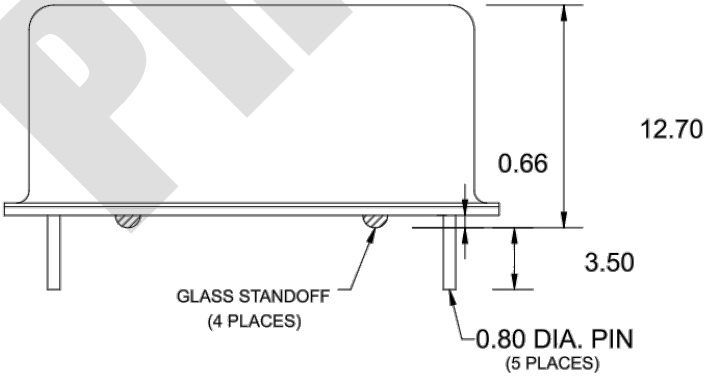
Base Stations (LTE 3G / 4G)
Wireless Backhaul
High Performance Stratum 3E Telecom Switching
Timing over Packet Networks (ToPSync)
VSAT Timing Reference

Description

The OCXO2525T family offers outstanding frequency stability in a high volume cost efficient design platform.

Physical Dimensions





Pin Connections

PIN	FUNCTION
1	R.F. Output
2	Ground
3	Not Connected
4	Not Connected
5	Supply Voltage

Unit = mm

Specification

OCXO Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Operational Frequency Range		F_0			10.000000		MHz	
LVTTL	Logic Level 1			+ 2.4			V	
	Logic Level 0					+ 0.4	V	
	Output Load				15		pF	
	Rise / Fall Time		10% to 90%			6	ns	
	Spurious					-60	dBc	
	Duty Cycle		@1.65V	45	50	55	%	
Power Supply								
Voltage		Vcc		+ 3.135	+ 3.300	+ 3.465	V	
Current Consumption			Warm-up			1000	mA	
			Steady-state			1.3	Watts	
Warm-up Time : To within +/- 10 ppb after 10 minutes referenced to frequency after 60 minutes from turn-on @ room temperature								
Frequency Stability								
Vs. temperature			-40°C to 75°C Ref. to 25°C	- 5.0		+ 5.0	ppb	
Initial Frequency Tolerance			@ 25°C @ time of shipment after 15 minutes +/- 1 min warm-up time			+/- 100	ppb	Ref. to nominal Frequency <= 90 days following date code
Daily Aging at time of shipment						+/- 0.5	ppb	
Total Projected 1 yr aging			Curve-fit calculation			+/- 50	ppb	
Beyond 10 years of aging						+/- 300	ppb	
Frequency versus 5% change in Vcc				-0.5		+ 0.5	ppb	
Frequency Retrace				-10.0		+ 10.0	ppb	
**NOTE: After 1 hour power on, following 24 hrs min. ON time, and 24 hrs max. OFF time at constant temperature and voltage. Referenced to freq. at off time.				-10.0		+ 10.0		
SSB Phase noise @ 10 MHz			1 Hz			-90.0	dBc/Hz	
			10 Hz			-120.0		
			100 Hz			-135.0		
			1000 Hz			-145.0		
			10 KHz			-155.0		
			100 KHz			-155.0		
ADEV	Tau = 1 second		Short Term Stability			0.05	ppb/s	
	In Still Air							
Environmental Conditions								
Operating temperature range		-40°C to + 75°C						
Storage temperature range		-55°C to + 105°C						
Humidity		MIL-STD-202, Method 103, Test Condition A; 95% RH @ + 40°C, non-condensing, 240 hours						
Vibration (non-operating)		MIL-STD-202, Method 201 ; 0.06 inches Total peak to peak, 10 to 55 Hz						
Shock (non-operating)		MIL-STD-202, Method 213, Test Condition J ; 30g's , 11 milli-seconds, half-sine						