

OCXO2525T-10MHz-A
3.3V OCXO with 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

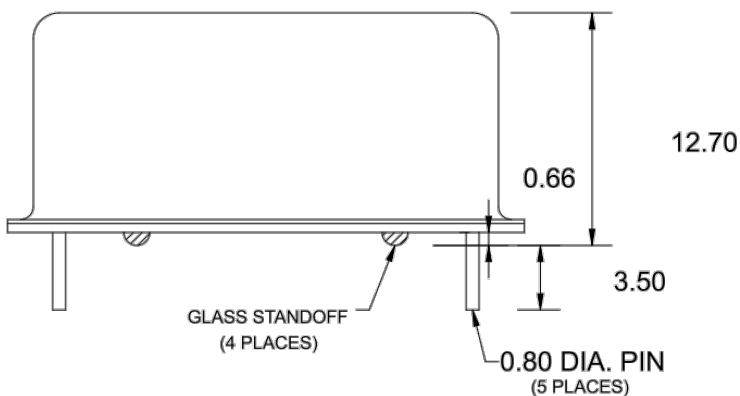
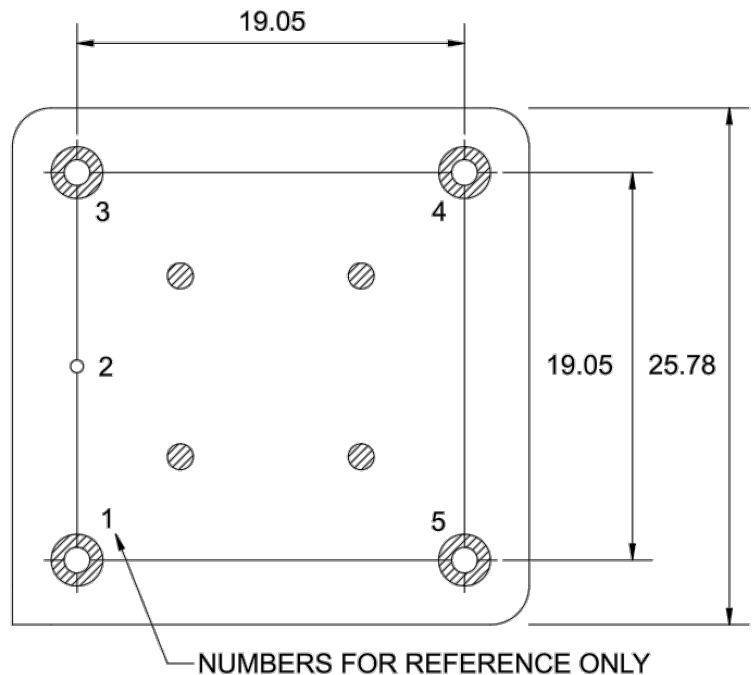
Base Stations (LTE 3G / 4G)
 Wireless Backhaul
 High Performance Stratum 3E Telecom Switching
 Timing over Packet Networks (ToPSync)
 VSAT Timing Reference

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	Voltage Control
4	Not Connected
5	Supply Voltage

Unit = mm

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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	V _{cc}		+ 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 Control*								
Frequency versus Voltage			+/- 500			ppb		
Control Voltage Range			0.0	1.65	3.3	V		
Input Impedance			100			Kohm	Less than 10% Linearity	
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 V _{cc}			-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.								
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 In Still Air	Short Term Stability			0.05	ppb/s		
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							