

Features

- +/- 1.000 ppb over temperature
- 40C to 70C Operation
- Better than -100 dBc/Hz at 1 Hz
- Better than 5E-12 AVAR (1 sec gate)
- Less than 550 mA peak current
- Less than 220 mA steady-state at 25C
- 12V supply

Picture of Part

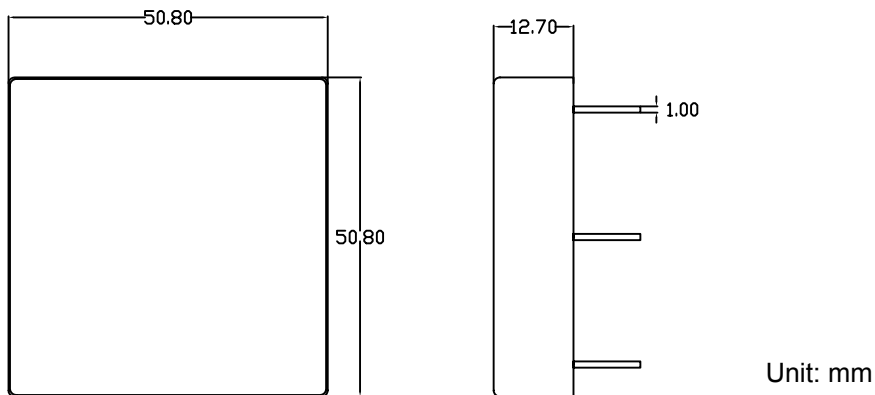
Typical Application

- Ideal for High Performance Frequency Source
- Test and Measurement Equipment
- Broadcast Reference Standard
- WiMax , LTE base stations

Description

The OCXO5050M-LN-10MHz oven oscillator has been specially optimized using very high Q 10 MHz SC-cuts in conjunction with proprietary crystal blank processing and advanced oscillator circuit design techniques to maximize oscillator “ loaded Q “ in order to deliver exceptional short term stability and close-in phase noise.

Physical Dimensions & Pin Connections



Specifications

OCXO Specification	Sym.	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	f_0			10.000		MHz	
RF output							
Sine-wave option	Level	L	0.30			Volts-rms	
	Load	R _L	45	50	55	Ohm	
	Harmonics				-30	dBc	
Power supply							
Voltage	V _{cc}		11.4	12.0	12.60	V	
Current Consumption		Warm-up state Steady state, +25 °C			550 200	mA mA	
Warm-up time***	t _{up}	To within +/- 20 ppb at +25 °C			3	min	ref. to frequency after 30 min.
Frequency control*							
Control voltage range	V _c		0.0		5.0	v	Positive tuning slope
Tuning range			± 400			ppb	
Reference voltage	V _{ref}			5.0		v	
Frequency stability							
vs. temperature		-40 °C to +70 °C, ref 25 °C	-1.000		+1.000	ppb	
vs. 5% change in supply voltage		ref Vcc typ.	-0.500		+0.500	ppb	
vs. 5% change in load		Ref.frequency at 50 ohms	-0.500		+0.500	ppb	
SSB Phase noise		1 Hz			-100	dBc/Hz	for 10MHz operational freq.
		10 Hz			-130		
		100 Hz			-153		
		1000 Hz			-158		
		10 kHz			-160		
Short Term Stability		Tau = 1sec			5.0	E-12	
Aging		Projected first year aging after 30 days operation					
	first year				0.05	ppm	
Environmental, mechanical conditions.							
Operating temperature range		-40 °C to +70 °C					
Storage temperature range		-55 °C to +85 °C					
Shock		Acceleration : 75g ; Duration : 3 msec +/- 1.0 msec					
Vibration		10 to 500 Hz ; 5g acceleration					