GSOX1210-100MHz-A

Ultra-low Noise OCXO in Low Profile 10 mm height

Features

Tight Stability (+/-300 ppb over temp.)
Low Profile (10.00 mm max. height)
Better than -127 dBc/Hz at 100 Hz
-40C to 70C Operation

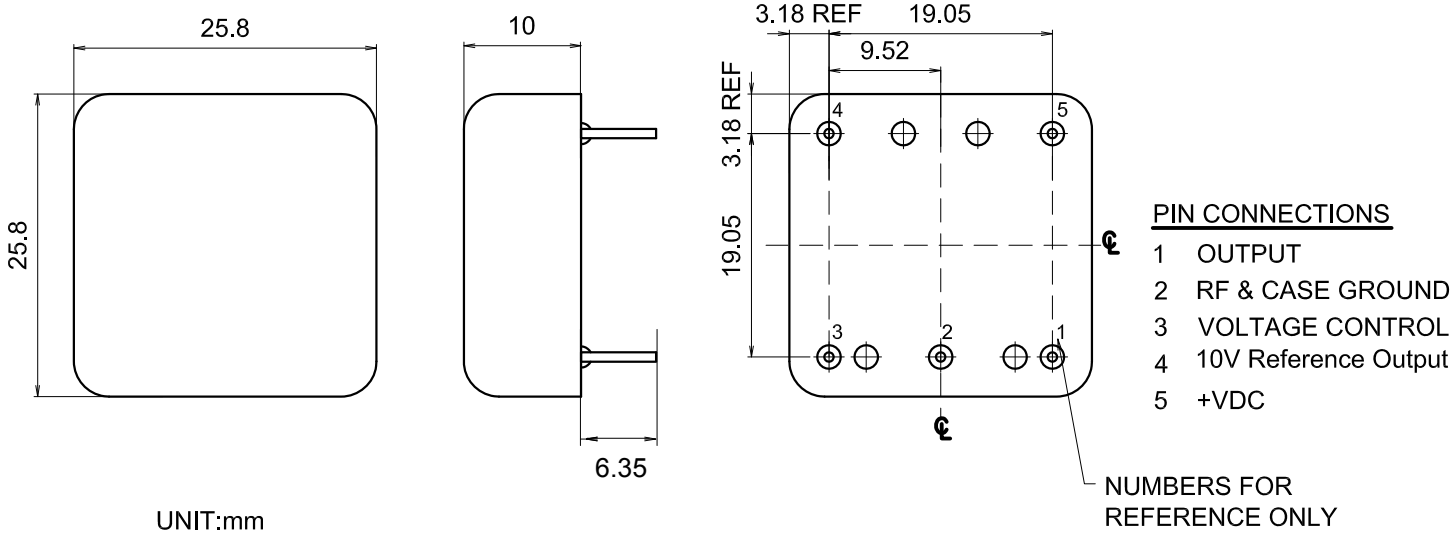
Typical Applications

Ideal for phase-locked Microwave Signal Sources
Low Noise Test Equipment
Low Noise Frequency Multipliers

Description

The GSOX1210-100MHz-A ovenized oscillator has been specially optimized using 100 MHz SC-cuts and their superior close-in phase noise in conjunction with properly impedance matched oscillator and amplifier circuits to yield very good phase noise performance.

Mechanical Drawing and PIN Connections



UNIT:mm

Specification

OCXO Specification		Sym.	Condition	Value			Unit	Note
				Min	Typ	Max		
Operational Frequency Range		f_0			100		MHz	**100 MHz only
RF output								
Sine-wave option	Level	L		0.40			volts	Peak to peak
	Load	R_L		45	50	55	Ohm	
	Harmonics					-25	dBc	
Power supply								
Voltage		V_{cc}		11.4	12.0	12.60	V	
Current Consumption			Warm-up state Steady state, +25℃			370 115	mA mA	
Warm-up time***		t_{up}	To within +/- 200 ppb at +25℃			60	sec	ref. to frequency after 30 min.
Frequency control*								
Control voltage range		V_c		0.0		10.0	V	Positive tuning slope
Tuning range				±3.0			ppm	
Reference voltage		V_{ref}			10.0		V	
Frequency stability								
vs. temperature			-40℃ to +70℃, ref 25℃	-300		+300	ppb	
vs. 5% change in supply voltage			ref Vcc typ.	-100		+100	ppb	
vs. 5% change in load			Ref.frequency at 50 ohms	-20		+20	ppb	
SSB Phase noise			10 Hz			-97	dBc/Hz	for 100MHz operational freq.
			100 Hz			-127		
			1 kHz			-152		
			10 kHz			-167		
			100 kHz			-167		
Aging			Projected first year aging after 30 days operation					
	first year					0.3	ppm	
Environmental, mechanical conditions.								
Operating temperature range			-40℃ to +70℃					
Storage temperature range			-55℃ to +80℃,					
Vibration			10 to 500 Hz ; 5g in all three directions					