OCXO5050AX-100MHz-A-V
Vibration Isolated Package ; 12V

Features

Frequency 100.000000 MHz
+10 dBm min. ultra low noise sine wave output
+/- 100.0 ppb from -55°C to +85°C
+/- 1.0 ppm adjust min. from 0.0V to 10.0V ;
-130 dBc/Hz or BETTER @ 100 Hz offset
-163 dBc/Hz or BETTER @ 1000 Hz offset

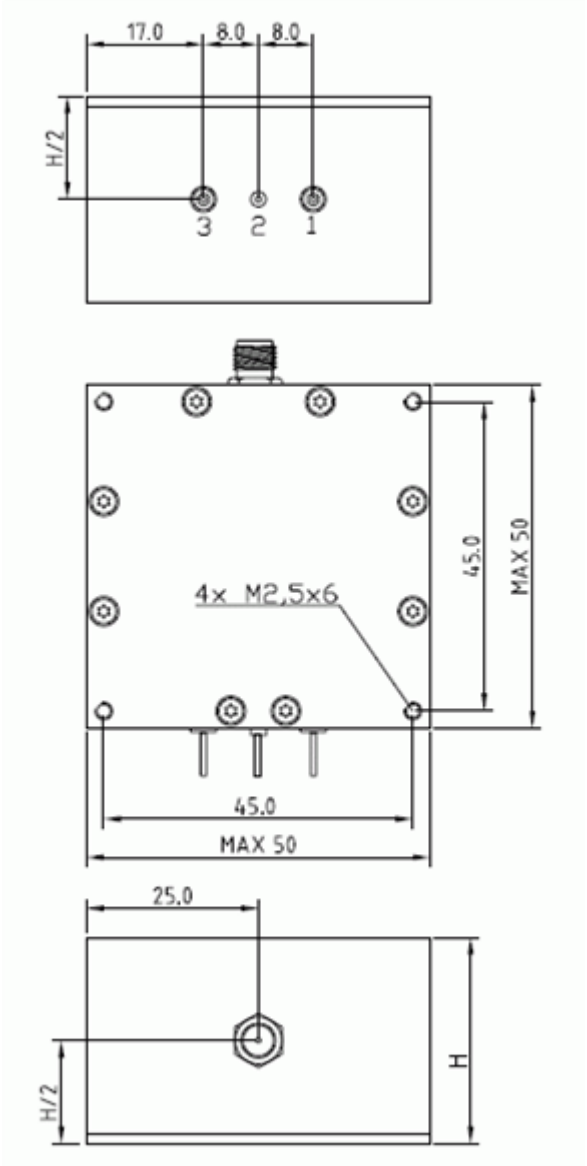
Typical Applications

Ref. for Microwave comm. system
Signal Analyzer Reference for internal synthesizers
SATCOM Systems

Description

The OCXO5050AX family offers a specially designed vibration isolated package with a 100 MHz SC-cut crystal impedance matched to the oscillator and amplifier circuits to deliver consistent world class phase noise on all production shipments.

Physical Dimensions



H=30mm

Signal Pin Assignment

PIN No.	Connections
1	Supply Voltage
2	Ground
3	Control Voltage
SMA	RF Output

Specification

OCXO Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Operational Frequency Range		**F_0**			**100.000**		**MHz**	
50 ohm sine wave	Level			10.0			dBm	
	Harmonics					-30.0	dBc	
	Spurious					-90.0	dBc	
Power Supply								
Voltage		Vcc		11.4	12.0	12.6	V	
Current Consumption			Warm-up			500	mA	
			Steady-state			300	mA	
Frequency Control*								
Frequency Adjust Range				+/- 1000			ppb	Tuning Slope Positive
Control Voltage on Pin 3				0.0	5.0	10.0	V	
Input Resistance				100K			ohms	
Frequency Stability								
Vs. temperature			-55°C to +85°C, ref 25°C			± 100	ppb	
Vs. 5% change in supply voltage			ref. Vcc typ.	-10.0		+10.0	ppb	
Tolerance at 25C and 5.00 V control voltage			With respect to nominal frequency	-300.00		+300.00	ppb	
SSB Phase noise @100 MHz and 10 dBm			10 Hz			-100	dBc/Hz	
			20 Hz			-110		
			100 Hz			-130		
			500 Hz			-145		
			1 KHz		-165	-163		
			10 KHz			-172		
			Under Random					
			Vibration Profile					
			See Environmental					
			100 to 199 Hz		-100			
			200 to 299 Hz		-115			
			300 to 499 Hz		-125			
			1 KHz to 10 KHz			-143		
Total Aging	Per Day		Projected after 30 days operation	-5.00		+5.00	ppb	After 30 days of operation
	Per year				+/- 200	± 500	ppb	

Environmental	
Mechanical Shock	Test Each , 3 x per 6 axes 50G, 11 msec, half-sine pulse
Random Vibration Profile	0.02 g*g / Hz @ 20 to 178 Hz
	+4 dB / Octave @ 178 to 300 Hz
	0.04 g*g / Hz @ 300 to 1000 Hz
	-6 dB / Octave @ 1000 to 2000 Hz
	0.01 g*g / Hz @ 2000 Hz
Operating temperature range	-55°C to +85°C
Storage temperature range	-60°C to 90°C