OCXO2020NF-10.000MHz-LP
10 mm Low Profile Case Height OCXO

Features

Stability: ±20 PPB over (-20 to +70)°C
Excellent Yearly Aging of less than ±50 PPB
Phase Noise Floor: -163 dBc/Hz typical at I0KHz
Allan Variance: For 1 second tau typ. 5.0E-12

Packaging type R: 20.2 x 20.2 x 10.4 mm

RoHS compliant

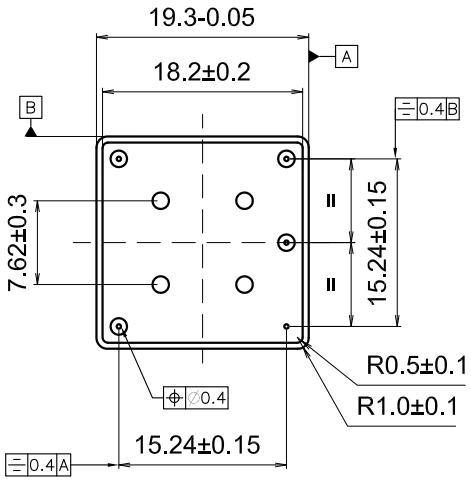
Typical Applications

Test Instrumentation Reference
GPS Timing Modules
Microwave Communications

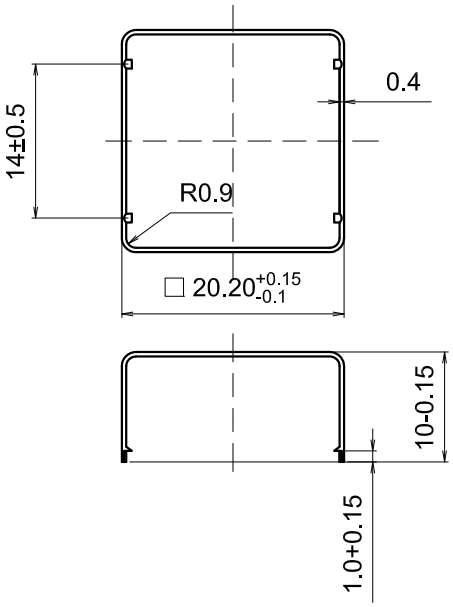
Description

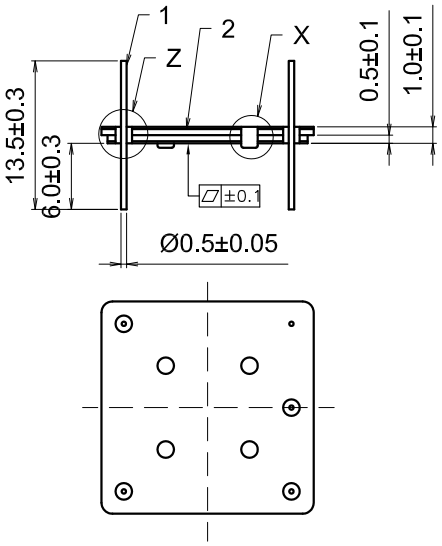
The OCXO2020NF-10.000MHz-LP series offers outstanding phase noise and frequency stability in a compact 20.2 mm x 20.2 mm x 10.4 mm solder-sealed enclosure.

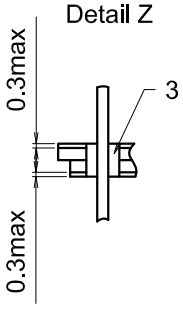
Physical Dimensions and Pin Connections

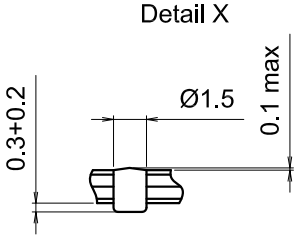


PIN	FUNCTION
1	CONTROL VOLTAGE
2	REF. VOLTAGE
3	GND
4	RF OUTPUT
5	SUPPLY VOLTAGE









#	OCXO Specification	Sym.	Condition	Value			Unit	Included in the test data
				Min.	Typ.	Max.		
1.1	**Nominal Frequency**	Fo			10.000000		MHz	
1.2	Initial tolerance		at +25°C	-0.1		0.1	ppm	
	RF output							
2.1	Wave form				Sine-wave			
2.2	Level	L		+5		+10	dBm	Vcc = 5V
2.3	Load	R_L		45	50	55	Ohm	
2.4	Harmonics level					-30	dBc	
	Frequency control							
3.1								
3.2	Control voltage range	V_c		0		4.0	V	
3.3								
3.4	Slope				Positive			
3.5	Pull range			+/- 0.500			ppm	
3.6								
3.7	Reference voltage	V_{ref}			4.0			
3.8								
	Power supply							
4.1	Voltage	Vcc		4.75	5	5.25	V	
4.2	Warm-up Power		Vcc=5V			4.0	Watts	
4.3	Steady State Power		at +25°C, Vcc=5V, still air			1.5	Watts	
4.4	Warm-up time	t_{up}				300	sec.	
	Frequency stability							
5.1	vs. temperature		from -20C to 70C	-20		+20	ppb	
5.2	vs. supply voltage		ref Vcc typ.		+/-0.5		ppb	
6	**Aging** per day		after 30 days of operation		+/- 0.30		ppb	
	per year				+/- 30	+/- 50	ppb	
7.1	**SSB Phase Noise**		at 1 Hz offset			-95	dBc/Hz	
			at 10 Hz offset			-125		
			at 100 Hz offset			-145		
			at 1 kHz offset			-155		
			at 10 kHz offset			-159		
7.2	**Allan Variance**		1 s		5.0		e-12	

Maximum ratings, environmental, mechanical conditions.

Operating temperature range	-20°C to +70°C
Storage temperature range	-55°C to +105°C
Humidity	Hermetically sealed
Mechanical shock	Per MIL-STD-202, 30G, 11ms, half sine
Vibration	Per MIL-STD-202, 10G swept sine to 2000 Hz
Soldering conditions	260°C, 10s