



Features and Benefits

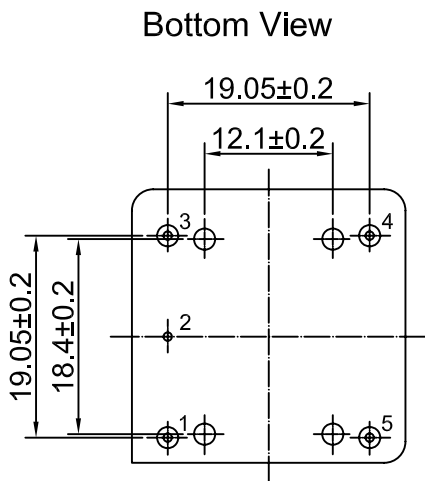
Frequency range: 80 to 130MHz
Supply voltage: 12V
Steady current:150mA
Output waveform: Sinewave
Frequency stability vs. operating temperature: ± 50 PPB
Aging: ± 100 PPB per year
Operating temperature: -40°C to +85°C
Size: 25.8x25.8x12.7

Typical Applications

Test instrument reference
Ref. for microwave communication system
Signal analyzer reference for internal synthesizers
SATCOM systems

Mechanical Drawing & Pin Connections

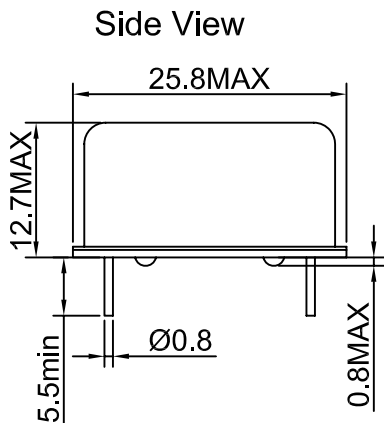
Drawing No: MD13022-2



Pin Connections:

PIN #	Symbol	CONNECTION
1	RF OUT	RF Output
2	GND	Ground, case
3	Vc	Control Voltage(EFC)
4	VREF	Reference Voltage
5	Vs	Supply Voltage

Unit in mm
1mm = 0.0394 inches





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	f ₀		80		130	MHz	
Standard Frequencies			100/120			MHz	
RF Output							
Sine-wave	Level	L		+7	+12		dBm
	Load	R _L	±5%		50		Ohm
	Harmonics Level					-30	dBc
	Spurious					-90	dBc
Power Supply							
Voltage	V _{cc}		11.4	12.0	12.6	V	
Power Consumption		Warm-up			350	mA	May be higher for wide operating temperature range
		Steady-state, +25°C			150		
Warm-up Time:	T _{up}	Δf _{final} / f ₀ < ±0.1ppm		3	5	min	
Frequency Control							
Control Voltage Range	V _c		0	V _{ref} /2	V _{ref}	V	
Tuning Range			±1	±2		ppm	Positive slope
Impedance			100			Kohm	
Reference Voltage Output	V _{ref}			10.0		V	
Frequency Stability							
Initial Tolerance		@+25°C, V _c =0.5*V _{ref}			±300	ppb	
Versus Temperature		ref 25°C	See ordering section			ppb	Steady state
Versus Supply Voltage		V _s ±5%			±10	ppb	
Versus Load Change		R _L ±5%			±5	ppb	
Aging	Per day	After 30 days of operation		±1	±2	ppb	
	First Year			±100	±200	ppb	
G-sensitivity					1.0	ppb/g	Per axis
Aging	Per day	After 30 days of operation	±2.0			ppb	10MHz
	First Year		±0.2			ppm	
Environmental Conditions							
Operating temperature range	See ordering section						
Storage temperature range	-55°C to +105 °C						



Ordering Information

OCXO2525BFLN	-	xxMHz	-	01	02	03
Group			Code			

For example, OCXO2525BFLN-100MHz-321 denotes the XO has the following specifications:

- Temperature Range: -20°C to +70°C
- Stability Over Temperature: ±50ppb
- Phase noise:
 - <-90dBc/Hz @10Hz
 - <-120dBc/Hz @100Hz
 - <-150dBc/Hz @1KHz
 - <-170dBc/Hz @10KHz
 - <-175dBc/Hz @100KHz

01	Temperature Range
Code	Specification
1	0°C to +50°C
2	-10°C to +60°C
3	-20°C to +70°C
4	-30°C to +70°C
5	-40°C to +75°C
6	-40°C to +85°C
7	-55°C to +85°C

02	Frequency Stability
Code	Specification
1	±25 ppb
2	±50 ppb
3	±100 ppb
4	±200 ppb

03	Phase Noise	
Code	80 to 110Mz	>110 to 130MHz
1	<-90dBc/Hz @10Hz <-120dBc/Hz @100Hz <-150dBc/Hz @1KHz <-170dBc/Hz @10KHz <-175dBc/Hz @100KHz	<-85dBc/Hz @10Hz <-115dBc/Hz @100Hz <-147dBc/Hz @1KHz <-170dBc/Hz @10KHz <-175dBc/Hz @100KHz
2	<-95dBc/Hz @10Hz <-125dBc/Hz @100Hz <-155dBc/Hz @1KHz <-170dBc/Hz @10KHz <-175dBc/Hz @100KHz	<-90dBc/Hz @10Hz <-120dBc/Hz @100Hz <-150dBc/Hz @1KHz <-170dBc/Hz @10KHz <-175dBc/Hz @100KHz
3	<-100dBc/Hz @10Hz <-130dBc/Hz @100Hz <-160dBc/Hz @1KHz <-170dBc/Hz @10KHz <-175dBc/Hz @100KHz	<-95dBc/Hz @10Hz <-125dBc/Hz @100Hz <-153dBc/Hz @1KHz <-170dBc/Hz @10KHz <-175dBc/Hz @100KHz
4	<-103dBc/Hz @10Hz <-135dBc/Hz @100Hz <-162dBc/Hz @1KHz <-172dBc/Hz @10KHz <-175dBc/Hz @100KHz	<-97dBc/Hz @10Hz <-127dBc/Hz @100Hz <-155dBc/Hz @1KHz <-170dBc/Hz @10KHz <-175dBc/Hz @100KHz
5	<-105dBc/Hz @10Hz <-137dBc/Hz @100Hz <-164dBc/Hz @1KHz <-174dBc/Hz @10KHz <-175dBc/Hz @100KHz	<-100dBc/Hz @10Hz <-130dBc/Hz @100Hz <-157dBc/Hz @1KHz <-172dBc/Hz @10KHz <-175dBc/Hz @100KHz

Note: The phase noise for reference only. Not all of phase noise are available. Pls contact us for the detail frequency phase noise.



Frequency stability vs. Temperature

Temperature range [°C]	Frequency stability			
	25 PPB	50 PPB	100 PPB	200 PPB
0 ~ +50	Available	Available	Available	Available
-10 ~ +60	Available	Available	Available	Available
-20 ~ +70	Available	Available	Available	Available
-30 ~ +70	Available	Available	Available	Available
-40 ~ +75	On Request	Available	Available	Available
-40 ~ +85	Not Available	On Request	Available	Available
-55 ~ +85	Not Available	Not Available	On Request	Available