

LOW HARMONIC YIG TUNED OSCILLATOR 3 TO 7 GHz COVERAGE

FEATURES

Low Noise
 Low Harmonic Power
 Low Spurious
 Superior Frequency Stability

APPLICATIONS

Microwave Test Equipment
 Frequency Synthesizers
 Up & Down Converters
 Communication Systems



DESCRIPTION

The MCO-0307-500-01 YIG tuned oscillator features superior harmonic performance in a low noise octave band oscillator. Harmonic levels are less than -20 dBc while the typical phase noise over the operating frequency range is -100 dBc/Hz at 10 kHz offset.

Parameters	Model #	MCO-0307-500-01
	UNITS	SPECIFICATIONS
General		
Frequency Range	GHz	3.0 to 7.0
RF Power Output	dBm, min	11.5
RF Power Variation (Freq. & Temp.)	dB, max	+3
Harmonic Level	dBc, max	-20
Non Harmonic Spurious	dBc, max	-65
Phase Noise - SSB		
10KHz offset	dBc/Hz max..	-98
100KHz offset	dBc/Hz max..	-120
Frequency Drift (over Temp.)	MHz, max	+10
Frequency Pulling (2:1 VSWR load)	KHz, typ	300
Main Coil		
Sensitivity	MHz/ma	20
Linearity	+/- MHz	4
Hysteresis	MHz	6
Impedance	Ohms/mH	8.5/47
FM Coil		
Sensitivity	KHz/ma	250
3 dB Bandwidth	MHz, typ	2
Impedance	Ohms/uH	1/5
DC Power		
Bias Voltage & Currents		
+15 Vdc	mA, max	150
-5 Vdc	mA, max	20
YIG Heater Power 20 to 32 Vdc	N/A	
Heater Surge	N/A	
Pwr. Supply pushing +15V	MHz/V, typ	0.2
Pwr. Supply pushing -5V	MHz/V, typ	3
Packaging & Environmental		
Operational Case Temperature	Degrees C	0 TO +70
Size	Inches	1.25" diameter

Customer Specific Applications

If you don't see what you need, contact us. MicroSource takes pride in being a world class, fast turn design center for microwave YIG based component, subsystems and synthesizers.