WIDE BAND YIG TUNED OSCILLATORS 2 TO 18 GHZ COVERAGE

MICROSOURCE, INC. Excellence by Design
A Giga-tronics Company

FEATURES

Frequency Range: 2 – 18 GHz
Low phase noise
Fast tuning
Superior frequency stability

APPLICATIONS

Microwave test equipment
Frequency Synthesizers
Converters

DESCRIPTION

MicroSource's 2-18 GHz oscillator features dual oscillators in a single housing. The first oscillator tunes from 2-8 GHz and the second oscillator from 8-18 GHz. A band-switch is provided to connect the desired oscillator to the single SMA RF output port. This model has excellent spectral purity, tuning linearity, and frequency drift performance.

Parameter	Model Number Units	MCO-0218-500-01 Specification
General Characteristics		
Frequency Range	GHz, min	2.0 to 18.0
RF Power	dBm, min.	+12
RF power Variation (Freq. & Temp.)	dBc, max.	± 3.5
Harmonic Level	dBc, max.	-10
Spurious	dBc, max.	-60
SSB Phase Noise		
10 kHz Offset	dBc / Hz, typ	-80
100 kHz Offset	dBc / Hz, typ.	-105
Freq. Pulling (From a 2:1 VSWR)	MHz, typ.	0.5
Freq. Drift (over Temp.)	MHz, typ.	±20
Main Coil Characteristics		
Sensitivity	kHz / mA, typ..	20
Linearity (from Best Fit Line)	%, typ.	±0.2
Hysteresis	MHz, max.	15
Coil Impedance Ohms	Ohms, typ.	8
Inductance	mH, typ.	160
FM Coil Characteristics		
Sensitivity	kHz / mA, typ.	310 ± 15%
Bandwidth (3 dB)	MHz, typ.	0.8
Coil Impedance Ohms	Ohms, typ.	1.0
Inductance	uH, typ.	5
DC Circuit Power & Control		
Bias Voltage & Currents		
+15 Vdc	mA, max.	100
+5 Vdc	mA, max.	300
-5 Vdc	mA, max.	50
YIG Heater (24 to 32 Vdc)	mA, max.	60 Steady State
	mA, max.	400 Surge
Band Switching 2-8 GHz	TTL	High
8-18 GHz	TTL	Low
Bias Supply Pushing +15 Vdc	MHz / V, typ.	1
+5 Vdc	MHz / V, typ.	5
-5 Vdc	MHz / V, typ.	5
Packaging & Environmental		
Size	inches	2.0 x 2.0 x 1.7
Operational Case Temperature	Degrees C	0 to 65

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.

1269 Corporate Center Parkway, Santa Rosa, CA 95407. Phone: (707) 527-4315 Fax: (707) 527-7176
www.microsource-inc.com ~ sales@microsource-inc.com