

FEATURES

- 17-26.5 GHz Coverage
- Excellent Phase Noise
- FM/Phase Lock Port
- High Output Power
- High Reliability



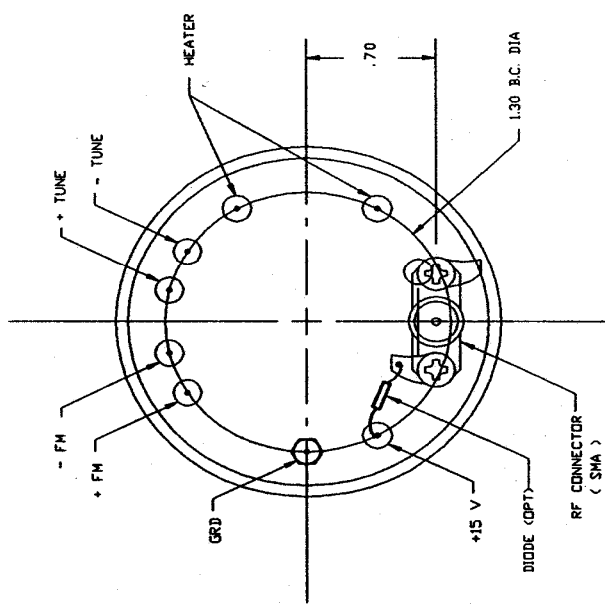
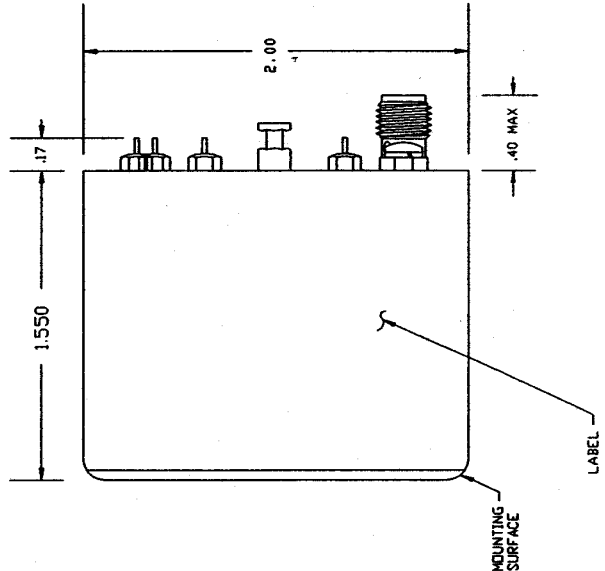
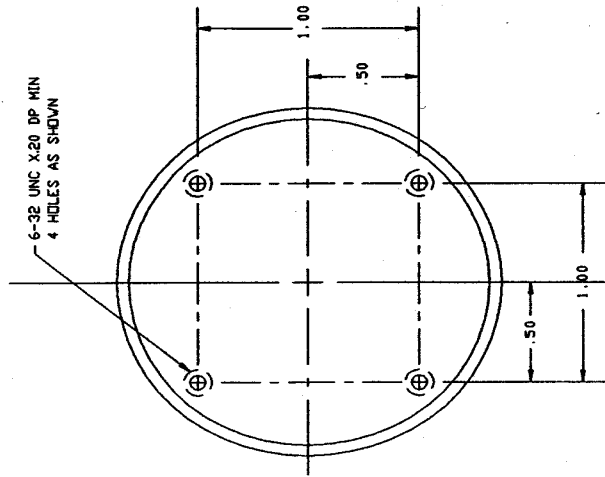
DESCRIPTION

MICRO LAMBDA Millimeter Wave oscillators are fundamental GaAs FET YIG-Tuned signal sources which provide +16 dBm minimum output power over the 17-26.5 GHz frequency band. These oscillators are biased from a single +15 volt source and require 300 mA max to operate. Guaranteed phase noise performance is -98 dBc/Hz at 100 kHz offset. The units come with an FM tuning coil which may be used to frequency modulate, phase lock or fine tune the output signal. These oscillators are ideal for use in spectrum analyzers, sweep generators, receivers and synthesizers.

ELECTRICAL AND PERFORMANCE SPECIFICATIONS

Guaranteed Specifications at 0° to +65° C Case Temperature

Model No.	MLOS-1826	MLOS-1724
Frequency Range, Min.	18-26.5 GHz	17-24 GHz
Power Output, Min.	+17 dBm	+17 dBm
Power Output Variation, Max.	+/- 2 dB	+/- 2 dB
Frequency Drift over Temperature, Max.	20 MHz	20 MHz
Pulling Figure (12 dB RL), Typ.	1 MHz	1 MHz
Pushing Figure +15 Vdc Supply, Typ.	0.1 MHz/V	0.1 MHz/V
Magnetic Susceptibility @ 60 Hz, Typ.	50 kHz/gauss	50 kHz/gauss
2nd Harmonic, Min.	-12 dBc	-12 dBc
3rd Harmonic, Min.	-20 dBc	-20 dBc
Spurious Output, Min.	-60 dBc	-60 dBc
Phase Noise @ 10kHz Offset	-80 dBc/Hz	-80 dBc/Hz
@ 100kHz Offset	-98 dBc/Hz	-98 dBc/Hz
Main Coil		
Sensitivity, Typ.	30 MHz/mA	30 MHz/mA
3 dB Bandwidth, Typ.	5 kHz	5 kHz
Linearity, Typ.	+/- 0.25 %	+/- 0.25 %
Hysteresis, Typ.	10 MHz	10 MHz
Input Impedance @ 1 kHz, Typ.	9 Ohm /150 mH	9 Ohm /150 mH
FM Coil		
Sensitivity, Typ.	310 kHz/ma	310 kHz/ma
3 dB Bandwidth, Typ.	400 kHz	400 kHz
Deviation @ 400 kHz Rate, Min.	40 MHz	40 MHz
Input Impedance @ 1 MHz, Typ.	1.0 Ohm / 2uH	1.0 Ohm / 2uH
DC Circuit Power, Max.+15 Vdc +/- 5%	300 mA	300 mA
YIG Heater Power		
Input Voltage Range	+24 +/- 4 Vdc	+24 +/- 4 Vdc
Current Surge/Steady State, Max.	250 mA / 25 mA	250 mA / 25 mA
Case Style	11-033	11-033



WEIGHT : 17 Oz. MAX

REV	DESCRIPTION	DATE	APPROVED

CONTRACT NO. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE : FRACTIONS DECIMALS ANGLES # .XX ±.02 .XXX ±.010		APPROVALS DRAWN N. NGUYEN 7/23/93 CHECKED ISSUED <i>[Signature]</i> 7/27/93		MICRO LAMBDA, INC. 2 INCH OSCILLATOR	
MATERIAL CARPENTER 49		FINISH		SIZE 0RN63	
DO NOT SCALE DRAWING		SCALE		SHEET	