

## FEATURES

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



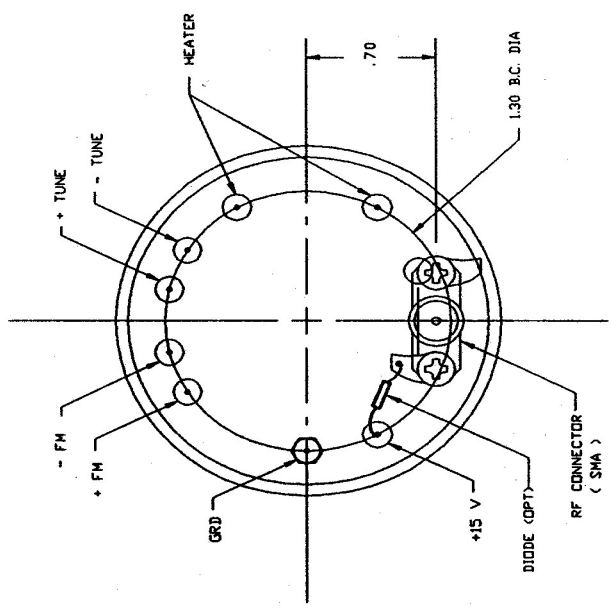
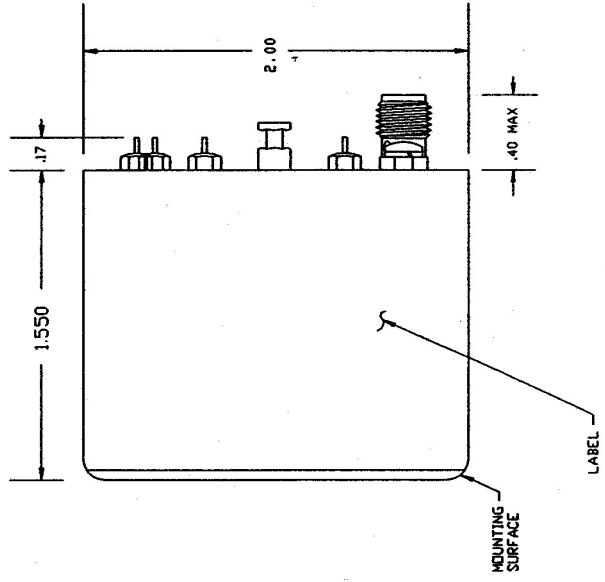
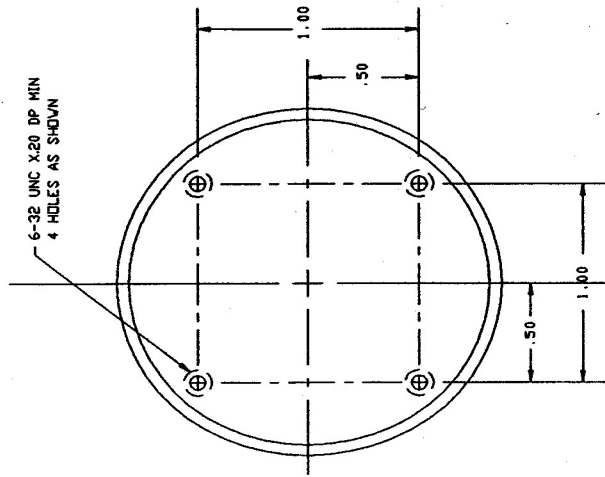
## DESCRIPTION

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 -105 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-1826P	MLOS-1724
Frequency Range, Min.	18-26.5 GHz	18-26.5 GHz	17-24 GHz
Power Output, Min.	+17 dBm	+12 dBm	+17 dBm
Power Output Variation, Max.	+/- 2 dB	+/- 2 dB	+/- 2 dB
Frequency Drift over Temperature, Max.	20 MHz	20 MHz	20 MHz
Pulling Figure (12 dB RL), Typ.	1 MHz	1 MHz	1 MHz
Pushing Figure +15 Vdc Supply, Typ.	0.1 MHz/V	0.1 MHz/V	0.1 MHz/V
Magnetic Susceptibility @ 60 Hz, Typ.	50 kHz/gauss	50 kHz/gauss	50 kHz/gauss
2nd Harmonic, Min.	-12 dBc	-12 dBc	-12 dBc
3rd Harmonic, Min.	-20 dBc	-20 dBc	-20 dBc
Spurious Output, Min.	-60 dBc	-60 dBc	-60 dBc
Phase Noise @ 100kHz Offset	-105 dBc/Hz	-108 dBc/Hz	-105 dBc/Hz
Main Coil			
Sensitivity, Typ.	30 MHz/mA	30 MHz/mA	30 MHz/mA
3 dB Bandwidth, Typ.	5 kHz	5 kHz	5 kHz
Linearity, Typ.	+/- 0.25 %	+/- 0.25 %	+/- 0.25 %
Hysteresis, Typ.	10 MHz	10 MHz	10 MHz
Input Impedance @ 1 kHz, Typ.	9 Ohm /150 mH	9 Ohm /150 mH	9 Ohm /150 mH
FM Coil			
Sensitivity, Typ.	310 kHz/ma	310 kHz/ma	310 kHz/ma
3 dB Bandwidth, Typ.	400 kHz	400 kHz	400 kHz
Deviation @ 400 kHz Rate, Min.	40 MHz	40 MHz	40 MHz
Input Impedance @ 1 MHz, Typ.	1.0 Ohm / 2uH	1.0 Ohm / 2uH	1.0 Ohm / 2uH
DC Circuit Power, Max.+15 Vdc +/- 5%	300 mA	300 mA	300 mA
YIG Heater Power			
Input Voltage Range	+24 +/- 4 Vdc	+24 +/- 4 Vdc	+24 +/- 4 Vdc
Current Surge/Steady State, Max.	250 mA / 25 mA	250 mA / 25 mA	250 mA / 25 mA
Case Style	11-033	11-033	11-033



REV	DESCRIPTION	DATE	APPROVED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE :		CONTRACT NO.	
* FRACTIONS	DECIMALS	APPROVALS	DATE
* .XX ±.02	ANGLES	DRAWN N. NGUYEN	7/23/93
* .XXX ±0.10		CHECKED	
MATERIAL	CARPENTER 49	ISSUED	7/27/93
FINISH			
DO NOT SCALE DRAWING		SCALE	SHEET
MICRO LAMBDA, INC.		CAGE	REV.
2 INCH OSCILLATOR		0RN63	11 - 033

WEIGHT : 17 Oz. MAX