

FEATURES

- 18-40 GHz Coverage
- K-Style RF Output
- FM/Phase Lock Port
- High Reliability



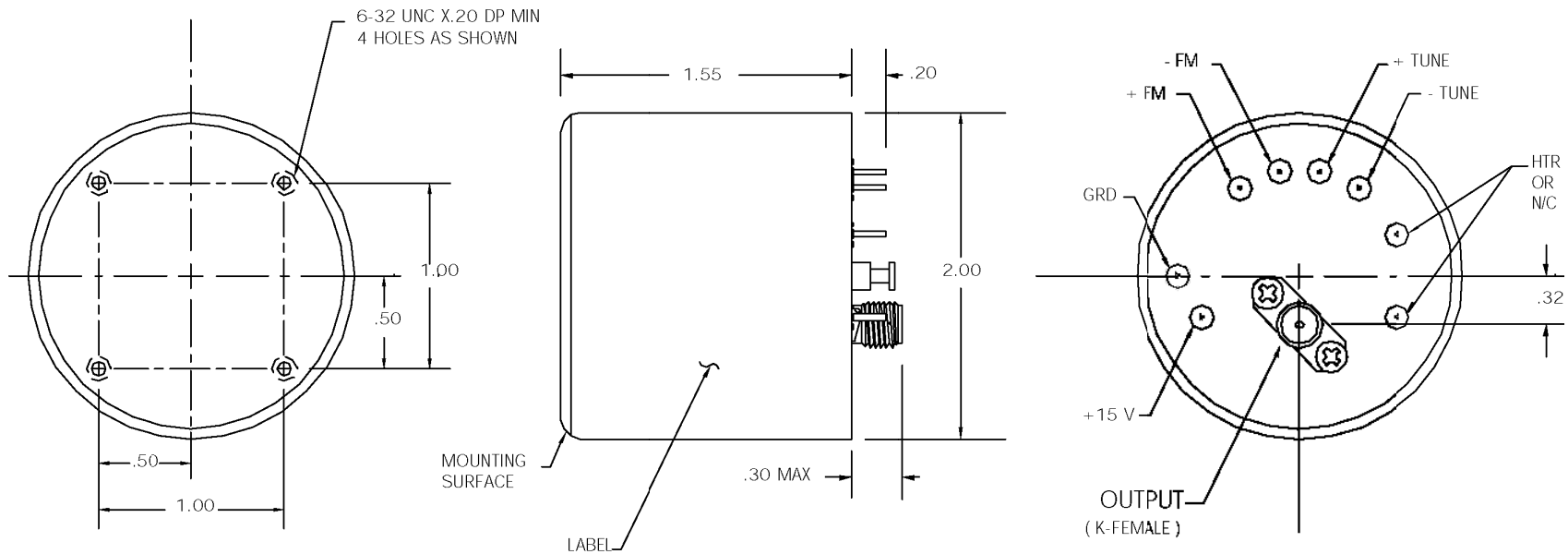
DESCRIPTION

MICRO LAMBDA WIRELESS Millimeter Wave oscillators are fundamental GaAs FET YIG-Tuned signal sources which provide +13 dBm minimum output power over the 18-40 GHz frequency band. These oscillators are biased from a single +15 volt source and require 200 mA max to operate. 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-1840	MLOS-2040	MLOS-2640
Frequency Range, Min.	18-40 GHz	20-40 GHz	26.5-40 GHz
Power Output, Min.	+13 dBm	+13 dBm	+13 dBm
Power Output Variation, Max.	+/- 3 dB	+/- 3 dB	+/- 3 dB
Frequency Drift over Temperature, Max.	30 MHz	30 MHz	30 MHz
Pulling Figure (12 dB RL), Typ.	0.5 MHz	0.5 MHz	0.5 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
Spurious Output, Min.	-60 dBc	-60 dBc	-60 dBc
Phase Noise @ 100 kHz Offset	-95 dBc/Hz	-95 dBc/Hz	-95 dBc/Hz
Main Coil			
Sensitivity, +/- 2 MHz	40 MHz/mA	40 MHz/mA	40 MHz/mA
3 dB Bandwidth, Typ.	5 kHz	5 kHz	5 kHz
Linearity, Typ.	+/- 0.1 %	+/- 0.1 %	+/- 0.1 %
Hysteresis, Typ.	40 MHz	35 MHz	30 MHz
Input Impedance @ 1 kHz, Typ.	6 Ohm /150 mH	6 Ohm /150 mH	6 Ohm /150 mH
FM Coil			
Sensitivity, Typ.	425 kHz/mA	425 kHz/mA	425 kHz/mA
3 dB Bandwidth, Typ.	400 kHz	400 kHz	400 kHz
Deviation @ 400 kHz Rate, Min.	+/- 100 MHz	+/- 100 MHz	+/- 100 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%	200 mA	200 mA	200 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	11-111	11-111	11-111



REV	DESCRIPTION	DATE	APPROVED

WEIGHT : 17 Oz. MAX

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE : FRACTIONS DECIMALS ANGLES ± .02 ° ± .010	CONTRACT NO.		 MICRO LAMBDA WIRELESS, INC.	
	APPROVALS	DATE		
MATERIAL CARPENTER 49	DRAWN N. NGUYEN	3/8/02	2 INCH OSC. (MILIMETER WAVE)	
FINISH	CHECKED	ISSUED		
DO NOT SCALE DRAWING	SCALE	CAGE ORN63	DWG. NO. 11 - 111	REV.
				SHEET