



MICRO LAMBDA WIRELESS, INC.

MLOM SERIES (OCTAVE BANDS) YIG TUNED OSCILLATORS 1" CUBE

FEATURES

- 1-18 GHz Frequency Coverage
- FM/Phase-Lock Port
- Excellent Phase Noise
- Superb Linearity
- High Reliability



DESCRIPTION

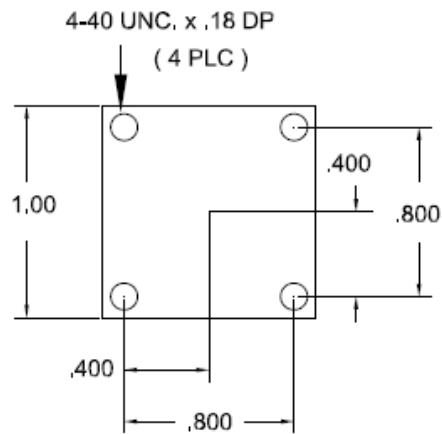
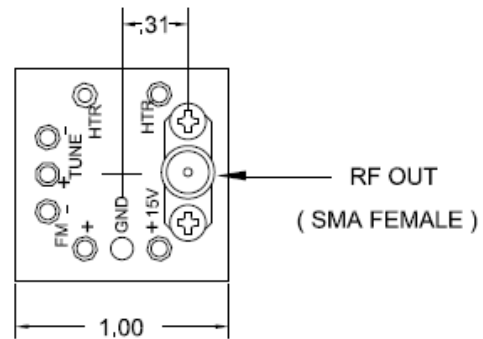
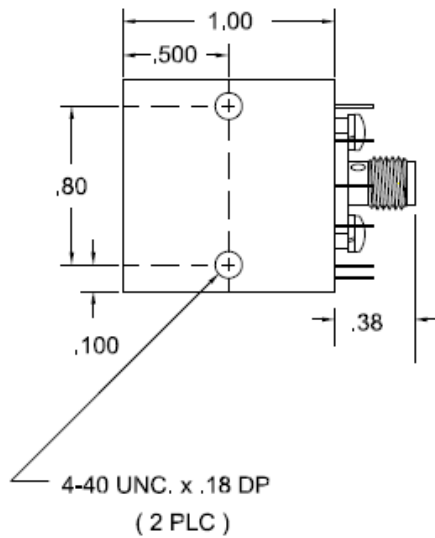
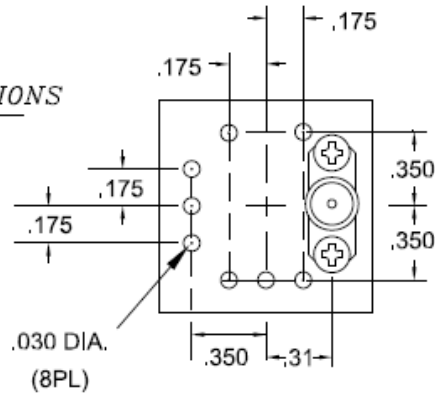
MICRO LAMBDA MLOM-Series 1" square YIG Tuned Oscillators cover octave and multi-octave bands from 1 to 18 GHz for commercial applications. Utilizing Thin Film Technology for reliability and cost effectiveness, our standard oscillators are specified to operate from 0 to 65°C. With proprietary designs on magnetic circuitry, oscillator circuitry and on coupling techniques, MICRO LAMBDA oscillator products offer excellent Tuning Linearity and Extended Tuning Bandwidth. Oscillators can be furnished with integrated or remote analog or digital drivers.

ELECTRICAL AND PERFORMANCE SPECIFICATIONS

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

Model No.	MLOM-0102	MLOM-0204	MLOM-0408	MLOM-0812	MLOM-1218
Frequency Range, Min.	1-2 GHz	2-4 GHz	4-8 GHz	8-12.4 GHz	12-18 GHz
Power Output, Min.	+15 dBm	+14 dBm	+14 dBm	+10 dBm	+10 dBm
Power Output Variation, Max.	+/- 2 dB	+/- 2 dB	+/- 2 dB	+/- 2 dB	+/- 2 dB
Frequency Drift over Temperature, Max.	10 MHz	10 MHz	10 MHz	15 MHz	15 MHz
Pulling Figure (12 dB RL), Typ.	1 MHz	1 MHz	1 MHz	1 MHz	1 MHz
Pushing Figure +15 Vdc Supply, Typ.	0.1 MHz/V	0.1 MHz/V	0.1 MHz/V	0.1 MHz/V	0.1 MHz/V
-5 Vdc Supply, Typ.	-	-	-	-	-
Magnetic Susceptibility @ 60 Hz, Typ.	50 kHz/gauss	50 kHz/gauss	50 kHz/gauss	50 kHz/gauss	50 kHz/gauss
2nd Harmonic, Min.	-8 dBc	-12 dBc	-12 dBc	-12 dBc	-12 dBc
3rd Harmonic, Min.	-12 dBc	-20 dBc	-15 dBc	-15 dBc	-20 dBc
Spurious Output, Min.	-70 dBc	-70 dBc	-70 dBc	-70 dBc	-70 dBc
Main Coil					
Sensitivity, Typ.	18 MHz/ma	18 MHz/ma	18 MHz/ma	18 MHz/ma	18 MHz/ma
3 dB Bandwidth, Typ.	5 kHz	5 kHz	5 kHz	5 kHz	5 kHz
Linearity, Typ.	+/- 0.1 %	+/- 0.1 %	+/- 0.1 %	+/- 0.15 %	+/- 0.15 %
Hysteresis, Typ.	3 MHz	5 MHz	5 MHz	8 MHz	8 MHz
Input Impedance @ 1 kHz, Typ.	10 Ohm / 50 mH	10 Ohm / 50 mH	10 Ohm / 50 mH	10 Ohm / 50 mH	10 Ohm / 50 mH
FM Coil					
Sensitivity, Typ.	310 kHz/ma	310 kHz/ma	310 kHz/ma	310 kHz/ma	310 kHz/ma
3 dB Bandwidth, Typ.	400 kHz	400 kHz	400 kHz	400 kHz	400 kHz
Deviation @ 400 kHz Rate, Min.	20 MHz	40 MHz	40 MHz	40 MHz	40 MHz
Input Impedance @ 1 MHz, Typ.	1.0 Ohm / 10uH	1.0 Ohm / 10uH	1.0 Ohm / 10uH	1.0 Ohm / 10uH	1.0 Ohm / 10uH
DC Circuit Power, Max.+15 Vdc +/- 5%	100 mA	100 mA	100 mA	100 mA	100 mA
-5 Vdc +/- 5%	-	-	-	-	-
YIG Heater Power					
Input Voltage Range	+24 +/- 4 Vdc	+24 +/- 4 Vdc	+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	250 mA / 25 mA	250 mA / 25 mA
Case Style	11-005	11-005	11-005	11-005	11-005

FEEDTHRU DIMENSIONS



WEIGHT: 4 Oz.

UNLESS OTHERWISE SPECIFIED DIMENSIONS
ARE IN INCHES
TOLERANCE ARE:

FRACTIONS DECIMALS ANGLES
▲ .005 ▲ .010 ▲ .015
▲ .005 ▲ .005 ▲ .005

MATERIAL CARPENTER 49

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS DATE

DRAWN N. NGUYEN 9/18/06

CHECKED

ISSUED



MICRO LAMBDA WIRELESS, INC.

1.0" MINI-CUBIC OSCILLATOR

SIZE

CAGE No
0RN63

DWG. NO.

11 - 005

REV.

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