

FEATURES

- .7-18 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 .7 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

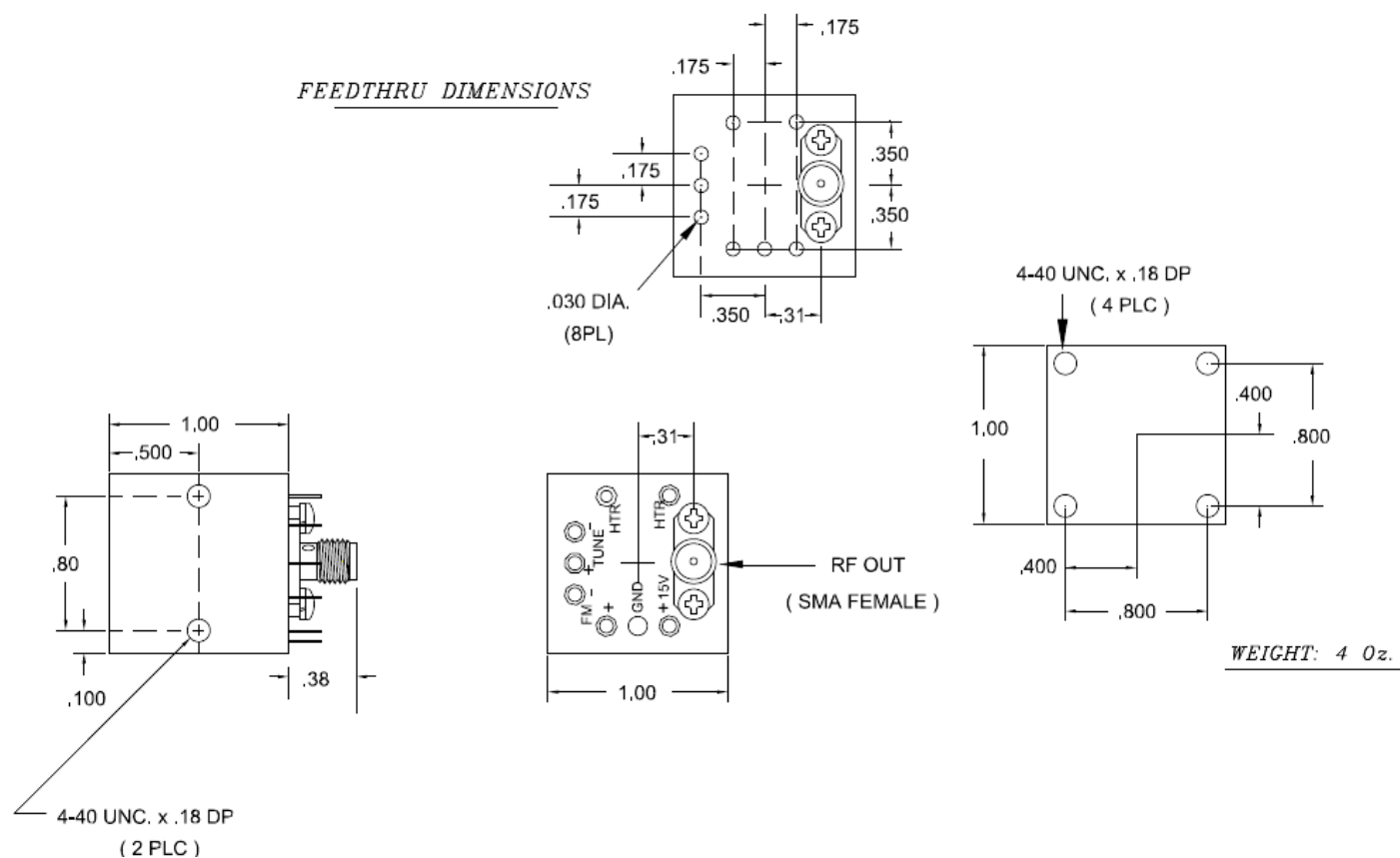
Model No.	MLOM-0702	MLOM-0704	MLOM-0208	MLOM-0309	MLOM-0210
Frequency Range, Min.	.7-2 GHz	.7-4 GHz	2-8 GHz	3-9 GHz	2-10 GHz
Power Output, Min.	+15 dBm	+14 dBm	+14 dBm	+13 dBm	+10 dBm
Power Output Variation, Max.	+/- 3 dB	+/- 3 dB	+/- 3 dB	+/- 3 dB	+/- 3 dB
Frequency Drift over Temperature, Max.	10 MHz	10 MHz	15 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.	-	-	-	-	1 MHz/V
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	-8 dBc	-12 dBc	-12 dBc	-12 dBc
3rd Harmonic, Min.	-12 dBc	-12 dBc	-15 dBc	-15 dBc	-15 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 %	+/- 0.1 %	+/- 0.1 %
Hysteresis, Typ.	3 MHz	3 MHz	5 MHz	5 MHz	7 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	20 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%	-	-	-	30 mA	30 mA
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	11-012-2

ELECTRICAL AND PERFORMANCE SPECIFICATIONS - CONTINUED

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

Model No.	MLOM-0310	MLOM-0412	MLOM-0716	MLOM-0818
Frequency Range, Min.	3.5-10.5 GHz	4-12.4 GHz	7-16 GHz	8-18 GHz
Power Output, Min.	+14 dBm	+10 dBm	+10 dBm	+10 dBm
Power Output Variation, Max.	+/- 3 dB	+/- 3 dB	+/- 3 dB	+/- 3 dB
Frequency Drift over Temperature, Max.	15 MHz	15 MHz	20 MHz	20 MHz
Pulling Figure (12 dB RL), Typ.	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
-5 Vdc Supply, Typ.	1 MHz/V	1 MHz/V	-	-
Magnetic Susceptibility @ 60 Hz, Typ.	50 kHz/gauss	50 kHz/gauss	50 kHz/gauss	50 kHz/gauss
2nd Harmonic, Min.	-12 dBc	-12 dBc	-12 dBc	-12 dBc
3rd Harmonic, Min.	-15 dBc	-15 dBc	-20 dBc	-20 dBc
Spurious Output, Min.	-70 dBc	-70 dBc	-70 dBc	-70 dBc
Main Coil				
Sensitivity, Typ.	18 MHz/ma	18 MHz/ma	18 MHz/ma	18 MHz/ma
3 dB Bandwidth, Typ.	5 kHz	5 kHz	5 kHz	5 kHz
Linearity, Typ.	+/- 0.15 %	+/- 0.1 %	+/- 0.15 %	+/- 0.15 %
Hysteresis, Typ.	8 MHz	8 MHz	10 MHz	10 MHz
Input Impedance @ 1 kHz, Typ.	10 Ohm / 50 mH	10 Ohm / 50 mH	6 Ohm / 50 mH	6 Ohm / 50 mH
FM Coil				
Sensitivity, Typ.	310 kHz/ma	310 kHz/ma	310 kHz/ma	310 kHz/ma
3 dB Bandwidth, Typ.	400 kHz	400 kHz	400 kHz	400 kHz
Deviation @ 400 kHz Rate, Min.	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
DC Circuit Power, Max.+15 Vdc +/- 5%	100 mA	100 mA	100 mA	100 mA
-5 Vdc +/- 5%	30 mA	30 mA	-	-
YIG Heater Power				
Input Voltage Range	+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
Case Style	11-012-2	11-012-2	11-005	11-005

Outline Drawing 11-005



Outline Drawing 11-012-2

