



FEATURES

- Full Tri-Band Coverage
- C,X & Ku Band Coverage
- Miniature Size
- Superior Microphonic Performance
- Compact Size and Light Weight



DESCRIPTION

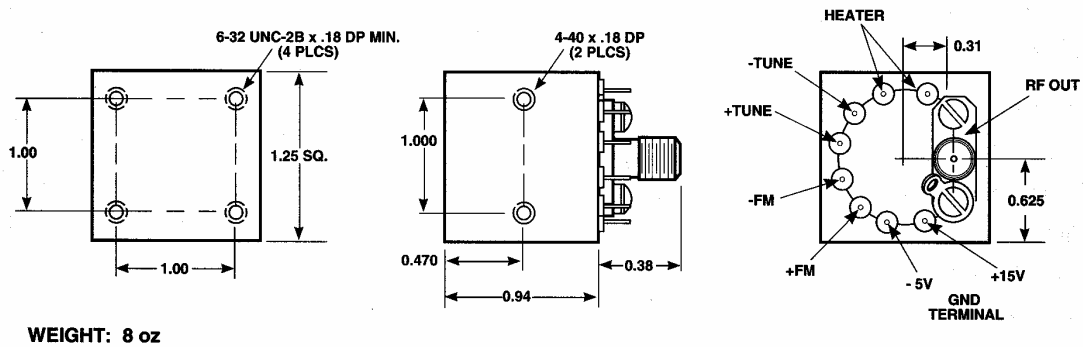
The MICRO LAMBDA X-Series oscillators are Low Noise sources covering the various frequency bands for VSAT applications. They are available in frequency bands to cover the entire Tri-Band range of 4.2-14.2 GHz, the C and X-Band frequency range of 4.6-8.9 GHz and the Ku-Band frequency range of 11.6-13.9 GHz. These oscillators have been specifically designed and ruggedized for superior microphonic performance required by commercial and military environments. All units in this series have specialized assembly and test processes to insure that the stringent microphonic requirements are met. They are field proven in the latest up and down converter designs currently being deployed. Unit sizes vary depending on frequency requirements, from 1.25" cube to VXI/VME and come with field replaceable SMA connectors.

ELECTRICAL AND PERFORMANCE SPECIFICATIONS

Guaranteed Specifications at -40° to $+70^{\circ}$ C Case Temperature

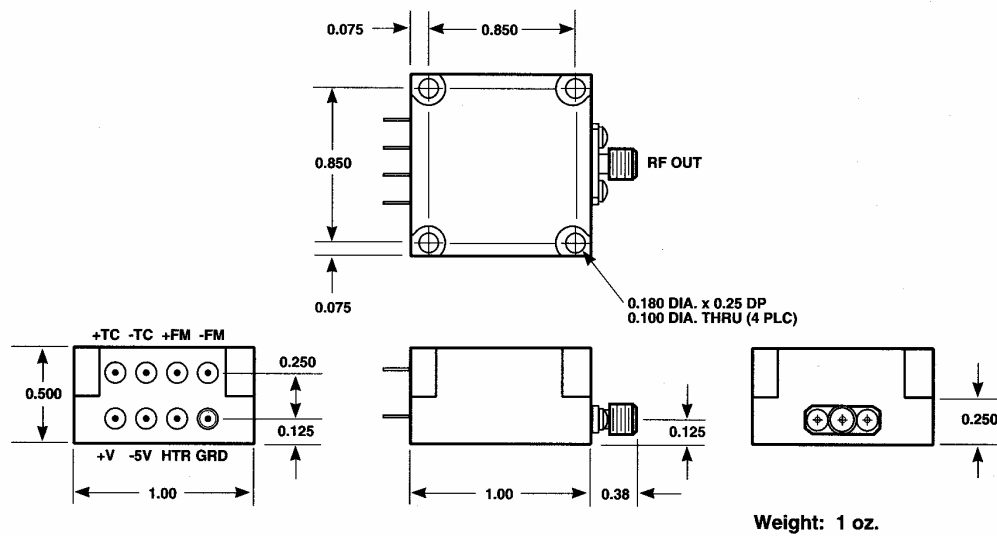
Model No.	MLOB-1314X	MLMY-1019X	MLPM-1074X
Frequency Range, Min.	4.2-14.2 GHz	4.6-8.9 GHz	11.6-13.9 GHz
Power Output, Min.	+14 dBm	+15 dBm	+14 dBm
Power Output Variation, Max.	+/- 2 dB	+/- 2 dB	+/- 1.5 dB
Frequency Drift over Temperature, Max.	20 MHz	20 MHz	20 MHz
Pulling Figure (12 dB RL), Typ.	1 MHz	1 MHz	1 MHz
Pushing Figure +12 Vdc Supply, Typ.	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	110 kHz/gauss	110 kHz/gauss
2nd Harmonic, Min.	-12 dBc	-12 dBc	-12 dBc
3rd Harmonic, Min.	-20 dBc	-20 dBc	-20 dBc
Spurious Output, Min.	-80 dBc	-80 dBc	-80 dBc
Phase Noise @ 10kHz Offset	-90 dBc/Hz	-95 dBc/Hz	-90 dBc/Hz
@ 100kHz Offset	-105 dBc/Hz	-110 dBc/Hz	-105 dBc/Hz
Main Coil			
Sensitivity, Typ.	20 MHz/mA	20 MHz/mA	20 MHz/mA
3 dB Bandwidth, Typ.	5 kHz	5 kHz	5 kHz
Linearity, Typ.	+/- 0.15 %	+/- 0.15 %	+/- 0.15 %
Hysteresis, Typ.	10 MHz	5 MHz	2 MHz
Input Impedance @ 1 kHz, Typ.	10 Ohm /55 mH	7 Ohm /15 mH	28 Ohm /15 mH
FM Coil			
Sensitivity, Typ.	400 kHz/ma	400 kHz/ma	400 kHz/ma
3 dB Bandwidth, Typ.	400 kHz	400 kHz	400 kHz
Deviation @ 400 kHz Rate, Min.	20 MHz	20 MHz	20 MHz
Input Impedance @ 1 MHz, Typ.	1.0 Ohm / 10uH	1.0 Ohm / 10uH	1.0 Ohm / 10uH
DC Circuit Power, Max.+12 Vdc +/- 5%	200 mA	100 mA	100 mA
-5 Vdc +/- 5 Vdc	50 mA	50 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	11-023-1	81-041-1	61-061

Outline: 11-023-1



Dimensions are in inches

Outline: 81-041-1



Outline: 61-061

