



### FEATURES

- Up to 16 GHz Frequency Coverage
- FM/Phase-Lock Port
- TO-8 Package
- High Reliability



### DESCRIPTION

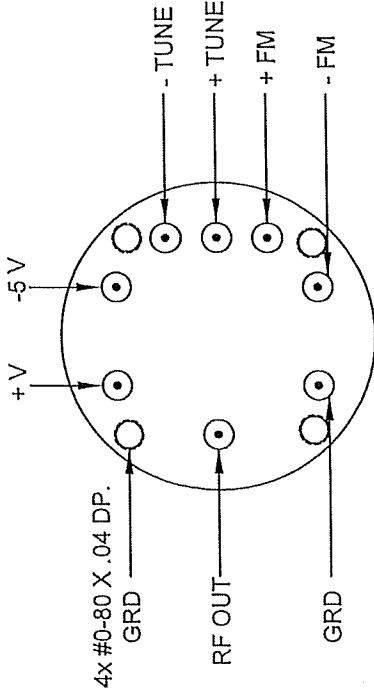
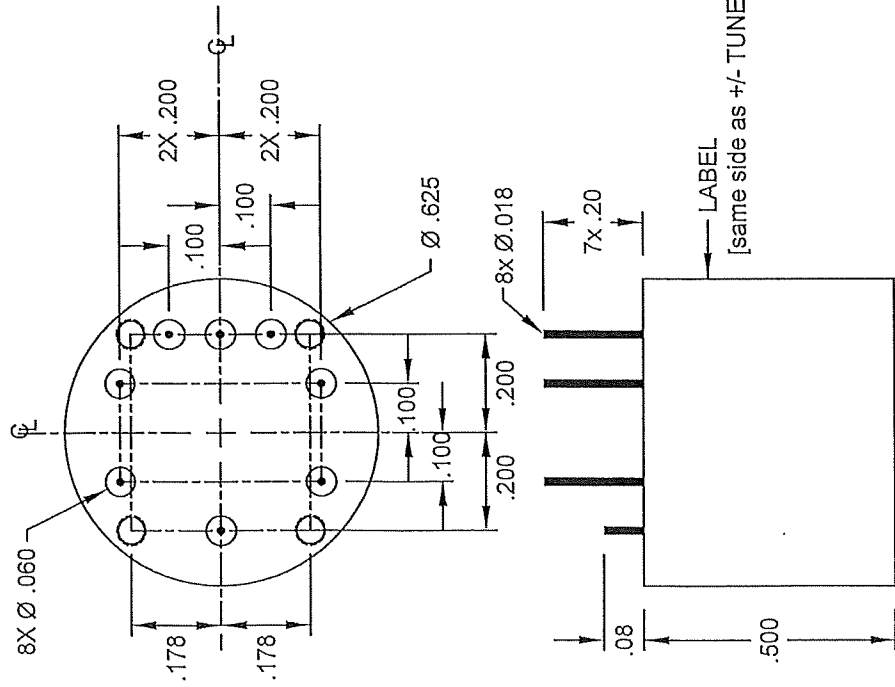
The MICRO LAMBDA **MLTO**-Series Permanent Magnet YIG-Tuned Oscillators cover the frequency range of 3-16 GHz. They are available in customer selected tuning ranges and are fitted with a low power main coil, and FM coil for phase locking. All units operate from a +8 Volt and -5 Volt supply and operate over the 0° to + 65°C temperature range. Units do not require a heater.

### ELECTRICAL AND PERFORMANCE SPECIFICATIONS

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

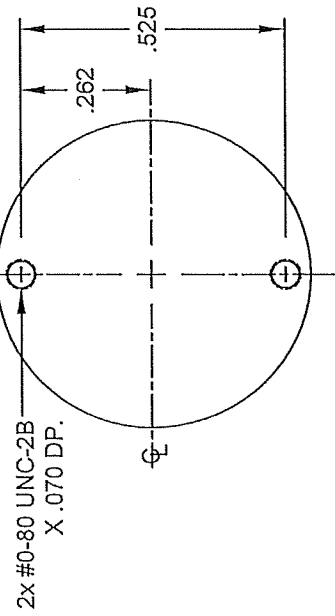
Model No.	MLTO-50310	MLTO-50613	MLTO-50816
Frequency Range, Min.	3.2-10.0 GHz	6.5-13.0 GHz	7.9-16.1 GHz
Free Run Frequency	7 GHz	9.6 GHz	12 GHz
Free Run Frequency Settability	+/- 300 MHz	+/- 300 MHz	+/- 300 MHz
Power Output, Min.	+9 dBm	+9 dBm	+7 dBm
Power Output Variation, Max.	4 dB	4 dB	4 dB
Freq. Drift over Temp., Max.	+/-10 MHz	+/-20 MHz	+/-30 MHz
Pulling Figure (12 dB RL), Typ.	2 MHz	2 MHz	2 MHz
Pushing Figure +8 Vdc, Typ.	2 MHz/V	2 MHz/V	2 MHz/V
Harmonics, Min.	-15 dBc	-12 dBc	-12 dBc
Spurious Output, Min.	-70 dBc	-70 dBc	-70 dBc
Phase Noise @ 10kHz Offset, Min.	-100 dBc/Hz	-100 dBc/Hz	-100 dBc/Hz
@ 100kHz Offset, Min.	-125 dBc/Hz	-125 dBc/Hz	-125 dBc/Hz
@ 100 kHz Offset, Typ	-128 dBc/Hz	-128 dBc/Hz	-128 dBc/Hz
Main Coil			
Sensitivity, Typ.	9.7 MHz/mA	12 MHz/mA	8 MHz/mA
Linearity, Typ.	+/-10 MHz	+/-6 MHz	+/-10 MHz
Hysteresis, Typ.	8 MHz	17 MHz	15 MHz
Impedance @ 1 kHz, Typ.	9 Ohm/30 mH	25 Ohm/20 mH	8 Ohm/20 mH
FM Coil			
Sensitivity, Typ.	300 kHz/ma	230 kHz/ma	280 kHz/ma
3 dB Bandwidth, Min. (Note 1)	2 MHz	400 kHz	400 kHz
Deviation @ 400 kHz, Min.	+/- 50 MHz	+/- 50 MHz	+/- 50 MHz
Impedance @ 1 MHz, Typ.	0.7 Ohm/1.0 uH	1.0 Ohm/1.0 uH	1.0 Ohm/1.0 uH
DC Power, Max. +8.0 Vdc +/- 0.5 V	60 mA	60 mA	60 mA
-5.0 Vdc +/- 0.25 V	15 mA	15 mA	15 mA
Case Style	99-0091-021	99-0091-021	99-0091-021

Note 1: Wider 3 dB bandwidths are available as special order.



PIN OUT

WEIGHT: .56 Oz (16g)



REV	DESCRIPTION	DATE	APPROVED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE:		CONTRACT NO.	
FRACTIONS	DECIMALS	APPROVALS	DATE
*	.XX ±.010	DRAWN	12/15/22
**	.XXX ±.005	CHECKED <i>e h n b g e</i>	12-15-22
MATERIAL		ISSUED	
FINISH			
DO NOT SCALE DRAWING		CAGE NO.	SCALE
		0RN63	99-0091-021
		DWG. NO.	SHEET

MICRO LAMBDA WIRELESS, INC.

PC MOUNT OSCILLATOR

( Ø .625" X .500" HIGH W/ 4 MTG. SCREWS )

REV. F