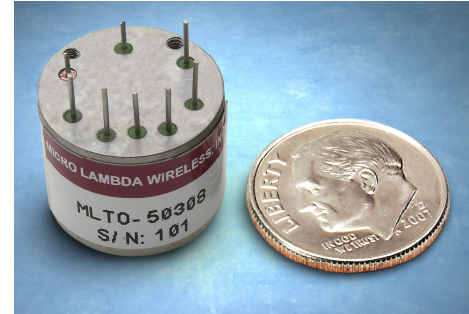




# MICRO LAMBDA WIRELESS, INC.

## SECOND GENERATION MLTO SERIES (TO-8 .5") PERMANENT MAGNET YTO's



### FEATURES

- Up to 13 GHz Frequency Coverage
- FM/Phase-Lock Port
- TO-8 Package
- High Reliability

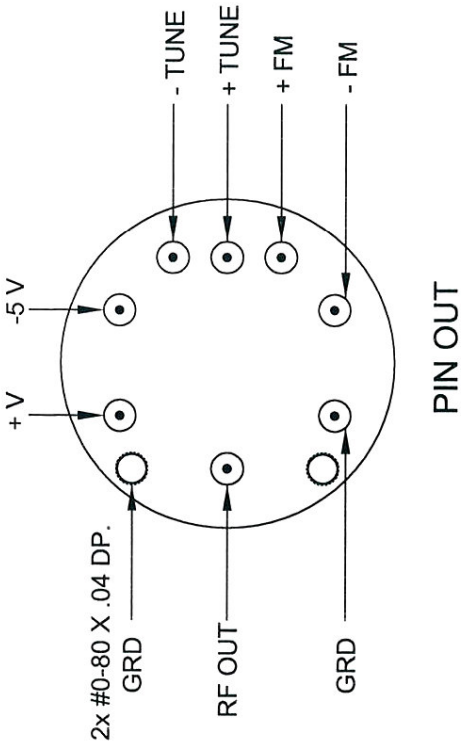
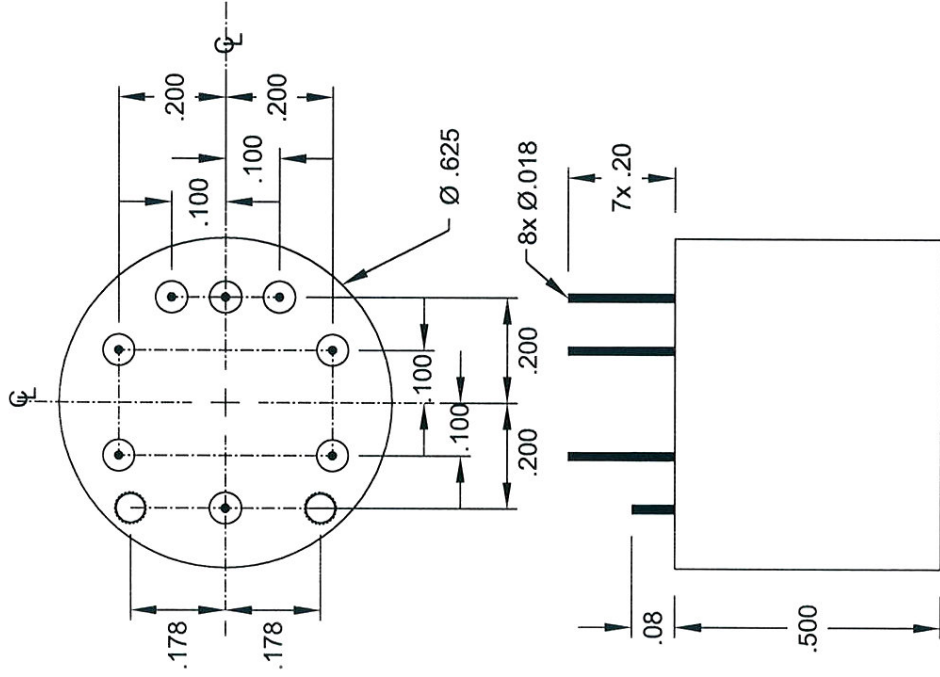
### DESCRIPTION

The MICRO LAMBDA **MLTO**-Series Permanent Magnet YIG-Tuned Oscillators cover the frequency range of 3-13 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.

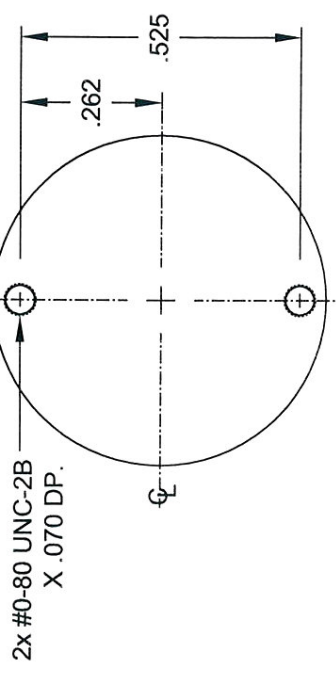
### ELECTRICAL AND PERFORMANCE SPECIFICATIONS

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

Model No.	MLTO-50365	MLTO-50409	MLTO-50613
Frequency Range, Min.	3.0-6.5 GHz	4.0-9.0 GHz	6.5-13.0 GHz
Free Run Frequency	4.7 GHz	6.5 GHz	9.6 GHz
Free Run Frequency Settability	+/- 200 MHz	+/- 200 MHz	+/- 200 MHz
Power Output, Min.	+10 dBm	+10 dBm	+10 dBm
Power Output Variation, Max.	3 dB	3 dB	3 dB
Freq. Drift over Temp., Max.	+/-25 MHz	+/-25 MHz	+/-20 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.	-12 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	-98 dBc/Hz
@ 100kHz Offset, Min.	-128 dBc/Hz	-128 dBc/Hz	-123 dBc/Hz
@ 100 kHz Offset, Typ	-130 dBc/Hz	-130 dBc/Hz	-125 dBc/Hz
<b>Main Coil</b>			
Sensitivity, Typ.	9 MHz/mA	15 MHz/mA	12 MHz/mA
Linearity, Typ.	+/-4 MHz	+/-4 MHz	+/-5 MHz
Hysteresis, Typ.	5 MHz	5 MHz	10 MHz
Impedance @ 1 kHz, Typ.	6 Ohm/10 mH	20 Ohm/30 mH	25 Ohm/25 mH
<b>FM Coil</b>			
Sensitivity, Typ.	150 kHz/ma	150 kHz/ma	230 kHz/ma
3 dB Bandwidth, Min.	1 MHz	1 MHz	1 MHz
Deviation @ 400 kHz, Min.	+/- 50 MHz	+/- 50 MHz	+/- 50 MHz
Impedance @ 1 MHz, Typ.	1.0 Ohm/1.0 uH	1.0 Ohm/1.0 uH	1.0 Ohm/1.0 uH
DC Power, Max. +8 Vdc	60 mA	60 mA	60 mA
-5 Vdc	20 mA	20 mA	15 mA
Case Style	91-001	91-001	91-001



WEIGHT: .56 Oz ( 16g )



REV	DESCRIPTION	DATE	APPROVED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE: * .xx ± .010 * .xxx ± .005		CONTRACT NO. MICRO LAMBDA WIRELESS, INC.	
MATERIAL PC MOUNT OSCILLATOR ( Ø .625" X .500" HIGH )		DATE 11/18/09	
FINISH DO NOT SCALE DRAWING		APPROVALS DRAWN N. NGUYEN CHECKED [Signature] ISSUED [Signature]	
SIZE CAGE No. 0RN63		DWG. NO. 91 - 001	
SCALE		SHEET	