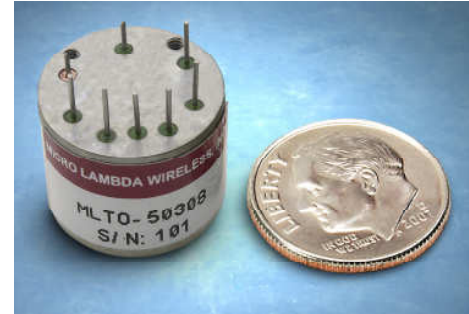




### FEATURES

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



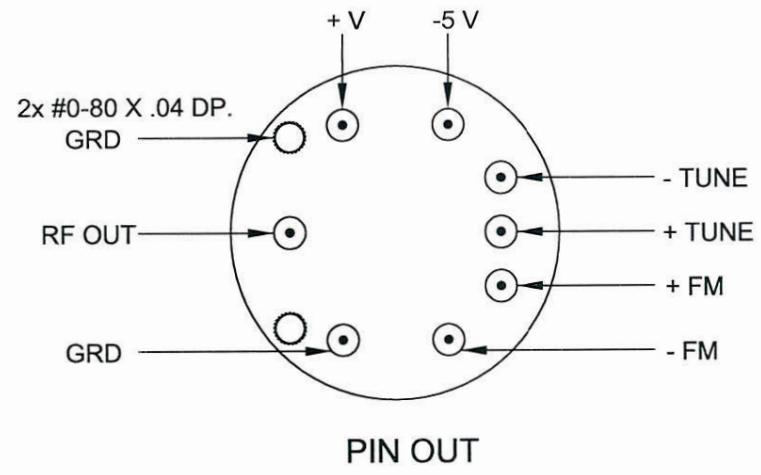
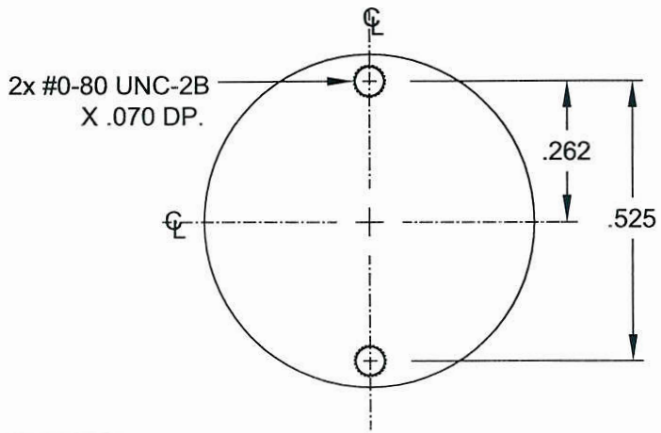
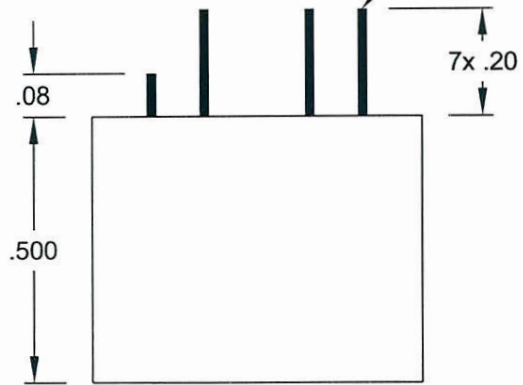
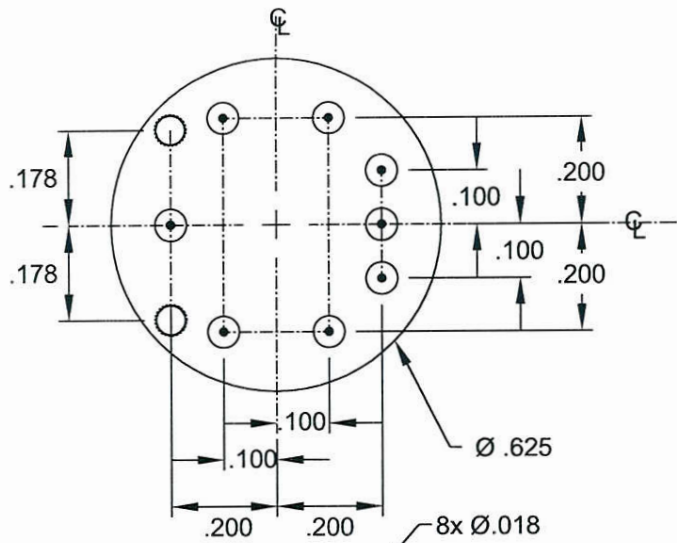
### DESCRIPTION

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-53010	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	+/- 200 MHz	+/- 200 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, Typ.	-100 dBc/Hz	-98 dBc/Hz	-98 dBc/Hz
@ 100kHz Offset, Min.	-125 dBc/Hz	-124 dBc/Hz	-124 dBc/Hz
@ 100 kHz Offset, Typ	-128 dBc/Hz	-126 dBc/Hz	-126 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/25 mH	8 Ohm/20 mH
FM Coil			
Sensitivity, Typ.	300 kHz/ma	230 kHz/ma	280 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.	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	91-001	91-001	91-001



**WEIGHT: .56 Oz ( 16g )**

REV	DESCRIPTION	DATE	APPROVED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE: FRACTIONS DECIMALS ANGLES * .XX ±.010 * .XXX ±.005		CONTRACT NO.					
MATERIAL		APPROVALS	DATE				
FINISH		DRAWN N.NGUYEN	11/18/09	<b>PC MOUNT OSCILLATOR</b> ( Ø .625" X .500" HIGH )			
DO NOT SCALE DRAWING		CHECKED <i>[Signature]</i>	11/18/09			SIZE	CAGE No. 0RN63
		ISSUED <i>[Signature]</i>		SCALE		SHEET	