



MICRO LAMBDA WIRELESS, INC.

MLVG Series for 5G Applications Permanent Magnet YTO's Ultra Wide Tuning Range and Low Phase Noise

FEATURES

- 6-21 GHz Frequency Coverage
- 12 GHz Tuning Bandwidth
- FM/Phase-Lock Port
- Miniature Size
- High Reliability
- Low Power Consumption: No Heater Required



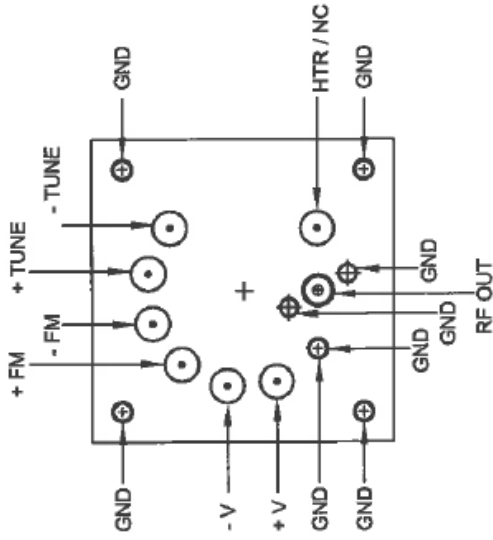
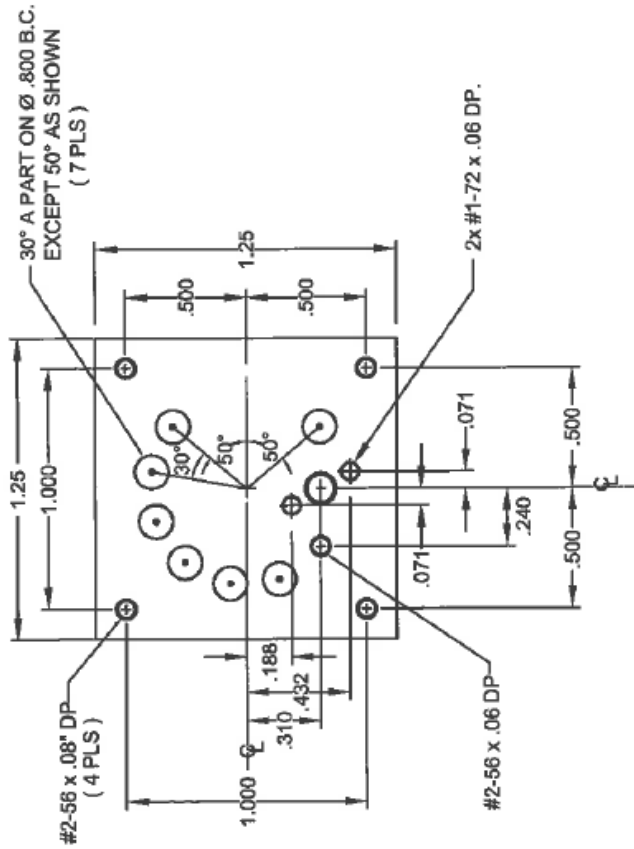
DESCRIPTION

The MICRO LAMBDA MLVG-Series Permanent Magnet YIG-Tuned Oscillators are signal sources covering the frequency range of 6-21 GHz. They are available in any customer selected **12 GHz tuning bandwidth** (± 6 GHz). These oscillators have been specifically designed with the latest permanent magnet technology to yield excellent performance over temperature and environmental conditions. The units are available in a standard 1.25 " x 1.25 " x .60" configuration with a field replaceable RF connector and weigh two ounces. No heater required for power consumption.

ELECTRICAL AND PERFORMANCE SPECIFICATIONS

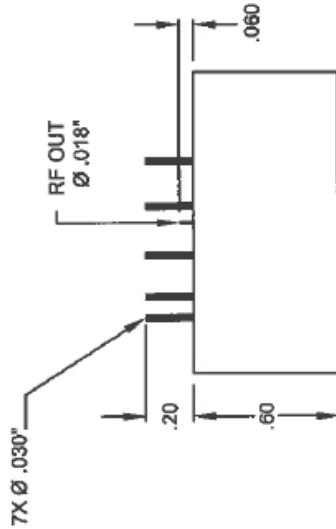
Guaranteed Specifications at 0° to +65° C Case Temperature

Model No.	MLVG-0618	MLVG-0820	MLVG-1021
Frequency Range, Min.	6-18 GHz	8-20 GHz	10-21 GHz
Free Run Frequency (+/- .5 GHz)	11.5 GHz	14 GHz	14.5 GHz
Power Output, Min.	+14 dBm	+14 dBm	+14 dBm
Power Output Variation, Max.	+/- 3 dB	+/- 3 dB	+/- 3 dB
Frequency Drift over Temperature, Max.	+/-30 MHz	+/-30 MHz	+/-30 MHz
Pulling Figure (12 dB RL), Typ.	1 MHz	1 MHz	1 MHz
Pushing Figure +8 Vdc Supply, Typ.	0.1 MHz/V	0.1 MHz/V	0.1 MHz/V
Pushing Figure -5 Vdc Supply, Typ.	1 MHz/V	1 MHz/V	1 MHz/V
2nd Harmonic, Min.	-12 dBc	-12 dBc	-12 dBc
3rd Harmonic, Min.	-20 dBc	-20 dBc	-20 dBc
Spurious Output, Min.	-70 dBc	-70 dBc	-70 dBc
Phase Noise @ 10kHz Offset Max.	-100 dBc/Hz	-100 dBc/Hz	-100 dBc/Hz
@ 100kHz Offset Max.	-123 dBc/Hz	-123 dBc/Hz	-123 dBc/Hz
Main Coil			
Sensitivity, Typ.	12 MHz/mA	12 MHz/mA	10 MHz/mA
Linearity, Typ.	+/-25 MHz	+/-25 MHz	+/-20 MHz
Hysteresis, Typ.	50 MHz	45 MHz	40 MHz
Input Impedance @ 1 kHz, Typ.	10 Ohm / 30 mH	10 Ohm / 30 mH	10 Ohm / 30 mH
FM Coil			
Sensitivity, Typ.	310 kHz/ma	310 kHz/ma	310 kHz/ma
3 dB Bandwidth, Typ.	400 kHz	400 kHz	400 kHz
Deviation @ 400 kHz Rate, Min.	+/- 50 MHz	+/- 50 MHz	+/- 50 MHz
Input Impedance @ 1 MHz, Typ.	1.0 Ohm / 2.0 uH	1.0 Ohm / 2.0 uH	1.0 Ohm / 2.0 uH
DC Circuit Power, +8 Vdc +/- 5%	250 mA	250 mA	250 mA
-5 Vdc +/- 5%	20 mA	20 mA	20 mA
Case Style	99-0061-112 99-0061-113	99-0061-112 99-0061-113	99-0061-112 99-0061-113



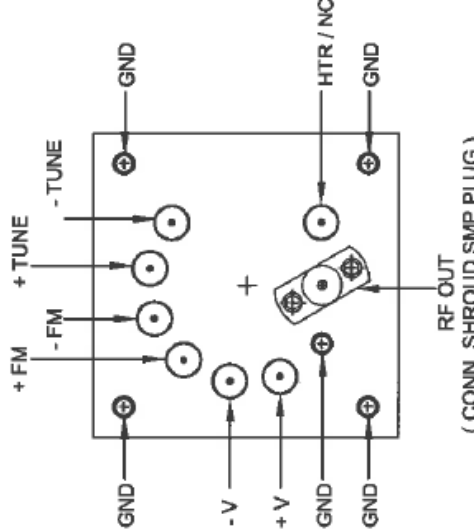
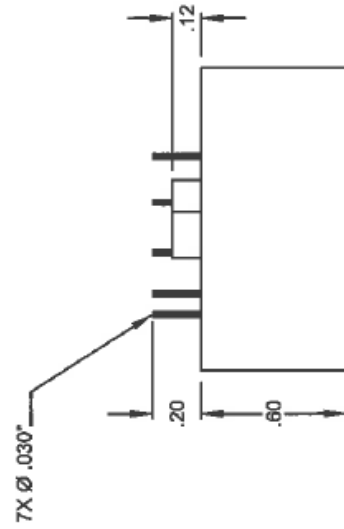
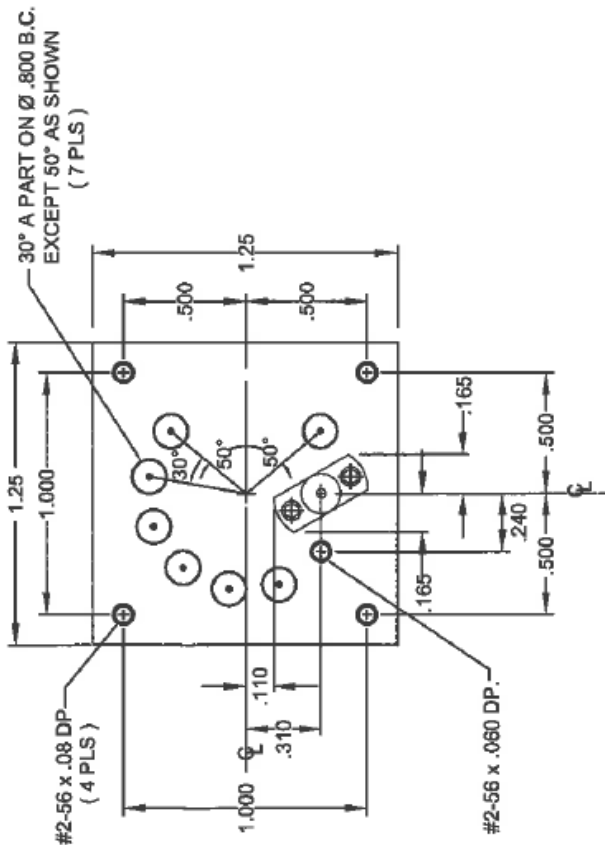
PIN OUT

WEIGHT: 3.5 Oz (99.2g) MAX.



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	10/28/17	
	CHECKED <i>[Signature]</i>		
	ISSUED <i>[Signature]</i>		
DO NOT SCALE DRAWING			
MICRO LAMBDA WIRELESS, INC.		PMO 1.25"	
SIZE	CAGE NO. 0RN63	DWG NO. 99-0061 -112	REV. A



PIN OUT

SUGGESTED: MATING CONNECTORS
 1/ SMP R/A FEMALE ROSENBERGER 19K202-270L5
 2/ SMP STRAIGHT FEMALE ROSENBERGER 19K101-270L5

WEIGHT: 3.5 Oz (99.2g) MAX.

REV	DESCRIPTION	DATE	APPROVED

		MICRO LAMBDA WIRELESS, INC.	
CONTRACT NO.		PMO 1.25" W/SMP MALE CONNECTOR	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE:	APPROVALS DRAWN: N. NGUYEN CHECKED: <i>[Signature]</i> ISSUED: <i>[Signature]</i>	DATE 10/26/17	SCALE 1:1
FRACTIONS DECIMALS ANGLES	CAGE NO. 0RN63	DWG. NO. 99-0061 -113	REV. A
MATERIAL	SIZE	SCALE	SHEET
FINISH	DO NOT SCALE DRAWING		1 OF 1