

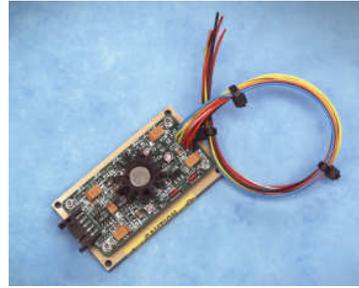


MICRO LAMBDA WIRELESS, INC.

YIG DEVICE DRIVERS ANALOG REMOTE SERIES (RA-SERIES) FOR PERMANENT MAGNET DEVICES 2-20 GHz

FEATURES

- All Permanent Magnet Oscillators
- MLPM & MLPW Series PM YTO's
- Compensation for Temperature Drift
- Voltage Regulators for Improved Stability
- 0 to 10 Volt Tuning Resolution
- Remote Oscillator/Driver Location



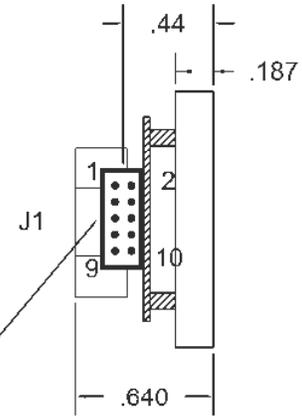
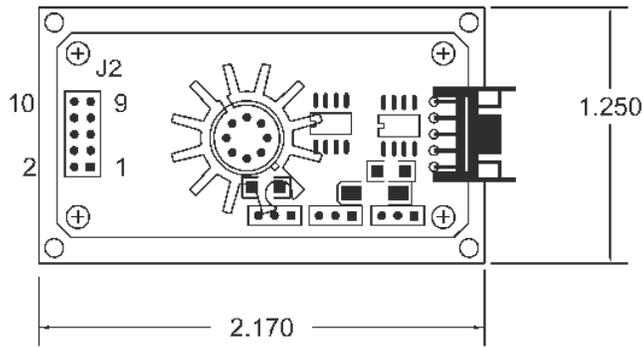
DESCRIPTION

All Micro Lambda Permanent Magnet YIG Devices are available with remotely located analog driver circuits. These drivers eliminate the need for customers to design or develop their own circuits and sophisticated test and alignment procedures. These remote drivers can be aligned at Micro Lambda's factory to ensure peak performance. Alignment and compensation with the particular YIG Device can be maximized down to the component level.

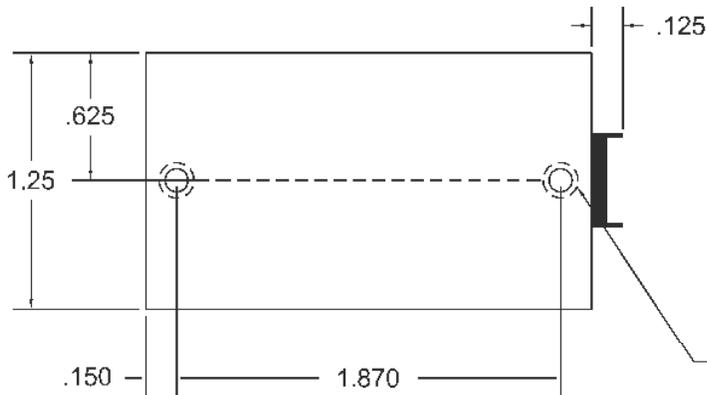
All drivers in this series provide input voltage regulators and compensation circuits to improve frequency drift. All voltages required by the YIG Device, except the heater inputs are supplied by the voltage regulators.

COMMERCIAL ANALOG DRIVERS	2-20 GHz P.M. DEVICE, ANALOG REMOTE SERIES	
DRIVER INPUT & RESPONSE	SPECIFICATION	(0 to + 65 deg. C)
Main Coil Driver Function		
Tuning Command	0 Volts = Lowest Frequency	10 Volts = Highest Frequency
Tuning Accuracy (Note 1) (excluding hysteresis)	YIG Device Accuracy +2 MHz	
Tuning Speed	10 mS for 1 GHz step to within +/-10 MHz.	
Sweep Speed (0 - 10 Volt Ramp)	100 mS Up / 10 mSec 1 GHz retrace, Linearity @ 0.1 %	
Main Driver Inputs		
Supply Voltage & Current (Note 2)		
+12V +/- .5V	265 mA Max.	
-12V +/- .5V	165 mA Max.	
Supply Voltage Pushing	+/- 0.2 MHz Max. @ +/- .5 Vdc (2-3000 kHz)	
Supply Voltage Ripple	10 mV Ripple Pk-Pk from 2 kHz to 3 MHz	
Ground	Chassis Ground	
Heater Voltage Inputs	300 mA Surge for 2 Sec., 25 mA Steady State	
+24 Vdc +/- 4 Vdc	Polarity Independent: ±12 Vdc or ±15 Vdc acceptable	
Input Impedance	10 k-Ohms	
Common Rejection Mode	> 40 dB (Twisted Pair Leads)	

Note 1: Accuracy Includes Temperature Drift & Linearity.
2. Some YIG devices require higher voltages - Check with factory.



2MM DUAL ROW TERMINAL STRIP
 DIGIKEY P/N: H2145-ND
 HIROSE P/N: DF11-10DP-2DS
 MATING WITH: H2031-ND
 HIROSE P/N: DF11-10DS-2C



4-40 UNC-2B x MAX. DP W/O
 BREAKING THRU (2 PLS)

J1 - PIN CONNECTIONS (INPUT)

PIN	FUNCTIONS
1	CONTROL 0-10V
2	CTRL RTN
3	GND
4	-SUPPLY
5	+SUPPLY
6	HEATER +
7	HEATER -
8	FM +
9	FM -
10	N/C

J2 - CONNECTIONS (YIG)

PIN	FUNCTIONS
1	TUNE +
2	YIG VCC (+12V) (*)
3	TUNE -
4	-5V (OPTIONAL) (*)
5	FM + (*)
6	HEATER +
7	FM - (*)
8	HEATER -
9	N/C
10	GND

NOTES:

- 1- (*) : NOT USED FOR FILTER
- 2- RECOMMENDED WIRE SIZE = 22-26 GAUGE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES - DECIMALS	CONTRACT NO.
FRACTIONS	APPROVALS
DESIGNED BY N. NGUYEN	DATE 3/22/01
CHECKED	
ISSUED	



MICRO LAMBDA WIRELESS, INC.

REMOTE PMO ANALOG DRIVER (OPEN BOARD)

REV. 51 - 010	DATE 01RN63	DWG. NO.	REV. B
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