

## FEATURES

- 1.0-8.0 GHz Frequency Coverage
- 4 Stage Version
- Excellent Linearity
- Miniature Size



## DESCRIPTION

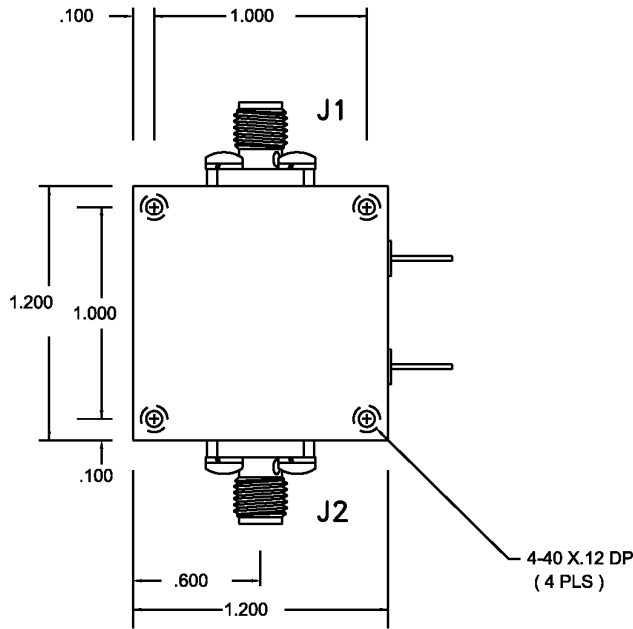
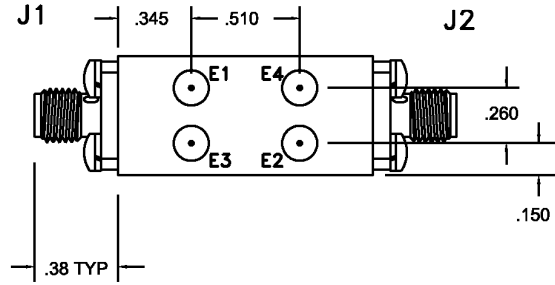
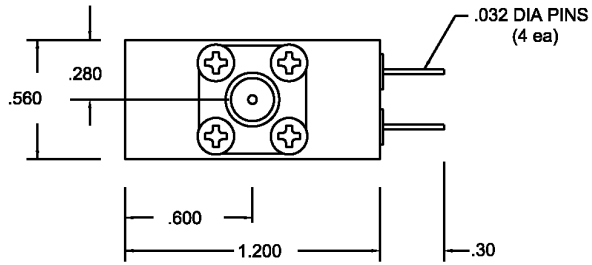
The MICRO LAMBDA MLFI-Series of Miniature YIG filters cover the frequency range of 1 GHz to 8 GHz and are available with 20 MHz minimum 3 dB bandwidths. They provide excellent linearity, low insertion loss and flat response over the frequency range. These filters offer the user the ability to reduce the size of current system designs as well as next generation system designs. This miniature line of filters are ideal for use in portable test sets, VXI base instruments, miniature receivers, and small microwave test equipment applications.

## ELECTRICAL AND PERFORMANCE SPECIFICATIONS

Guaranteed Specifications at  $-0^{\circ}$  to  $+65^{\circ}$  C Case Temperature

Model No.	MLFI-41002	MLFI-42004	MLFI-44008	MLFI-42008
Frequency Range, Min.	1-2 GHz	2-4 GHz	4-8 GHz	2-8 GHz
No. of Stages	4	4	4	4
3dB Bandwidth, Min.	20 MHz	30 MHz	40 MHz	30 MHz
Insertion Loss, Max.	5 dB	5 dB	4 dB	5 dB
Passband Spurs & Ripple, Max.	2.0 dB	2.0 dB	2.0 dB	2.0 dB
Passband VSWR, Max.	2:1	2:1	2:1	2:1
Selectivity, Typ.	24 dB/ Octave	24 dB/ Octave	24 dB/ Octave	24 dB/ Octave
Off Resonance Isolation, Min.	80 dB	80 dB	80 dB	80 dB
Off Resonance Spurious, Min.	50 dB	50 dB	50 dB	50 dB
Limiting Level, Min.	0 dBm	+10 dBm	+10 dBm	+10 dBm
Tuning Coil Characteristics				
Tuning Sensitivity, Typ.	20 MHz/mA	20 MHz/mA	20 MHz/mA	20 MHz/mA
Linearity, Max.	+/- 2 MHz	+/- 3 MHz	+/- 4 MHz	+/- 5 MHz
Hysteresis, Typ.	2 MHz	4 MHz	5 MHz	6 MHz
Temperature Drift, Max.	8 MHz	10 MHz	15 MHz	15 MHz
Coil Resistance, Typ.	12 Ohms	12 Ohms	12 Ohms	12 Ohms
Coil Inductance, Typ.	22 mH	22 mH	22 mH	22 mH
Heater Voltage	20-30 Vdc	20-30 Vdc	20-30 Vdc	20-30 Vdc
Heater Current-Surge, Max. @ 25 deg. C.	500 mA	500 mA	500 mA	500 mA
Steady State @ 25 deg. C.	100 mA	100 mA	100 mA	100 mA
Case Style	21-033	21-033	21-033	21-033

Note: Modified 3 dB Bandwidths Available.



CONN	FUNCTIONS
J1	RF IN
J2	RF OUT
E1	+ COIL
E2	- COIL
E3	HEATER
E4	HEATER

\* POSITION OF E1 & E2  
SELECTED AT FACTORY FOR  
COIL POLARITY

***WEIGHT : 3 Oz. MAX***

UNLESS OTHERWISE SPECIFIED DIMENSIONS  
ARE IN INCHES  
TOLERANCE ARE:  
FRACTIONS    DECIMALS    ANGLES  
#                .xxx # .020  
#                .xxx # .010

CONTRACT NO.



MICRO LAMBDA WIRELESS, INC.

APPROVALS                      DATE

DRAWN N. NGUYEN                      12/03/04

CHECKED

ISSUED

***1.2" FILTER ( .560" HIGH; 4 & 6 STAGES )***

SIZE

CAGE No  
**ORN63**

DWG. NO.

**21 - 033**

REV.

**B**

DO NOT SCALE DRAWING