

**FEATURES**

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


**DESCRIPTION**

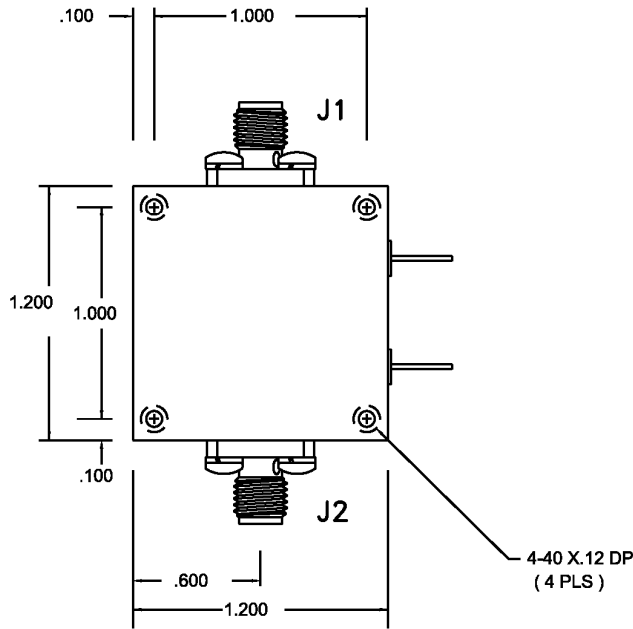
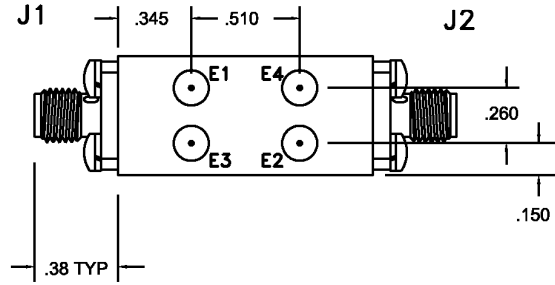
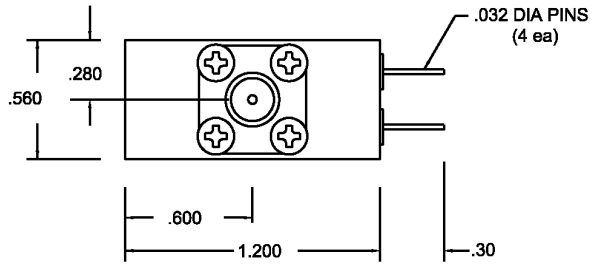
The MICRO LAMBDA MLFI-Series of Miniature YIG filters cover the frequency range of 1 GHz to 8 GHz and are available with 25 MHz minimum 3 dB bandwidths. They provide excellent linearity, low insertion loss and flat response over the frequency range. These filters offer the user the ability to reduce 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

| <b>Model No.</b>                        | MLFI-61002    | MLFI-62004    | MLFI-64008    | MLFI-62008    |
|---|---------------|---------------|---------------|---------------|
| Frequency Range, Min.                   | 1-2 GHz       | 2-4 GHz       | 4-8 GHz       | 2-8 GHz       |
| No. of Stages                           | 6             | 6             | 6             | 6             |
| 3dB Bandwidth, Min.                     | 25 MHz        | 40 MHz        | 45 MHz        | 40 MHz        |
| Insertion Loss, Max.                    | 6 dB          | 6 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.                       | 36 dB/ Octave | 36 dB/ Octave | 36 dB/ Octave | 36 dB/ Octave |
| Off Resonance Isolation, Min.           | 100 dB        | 100 dB        | 100 dB        | 100 dB        |
| Off Resonance Spurious, Min.            | 70 dB         | 70 dB         | 70 dB         | 70 dB         |
| Limiting Level, Min.                    | 0 dBm         | +10 dBm       | +10 dBm       | +10 dBm       |
| <b>Tuning Coil Characteristics</b>      |               |               |               |               |
| 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. | 350 mA        | 350 mA        | 350 mA        | 350 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  
#                .XX    # .020  
#                .XXX   # .010

CONTRACT NO.



MICRO LAMBDA WIRELESS, INC.

MATERIAL

APPROVALS

DATE

DRAWN N. NGUYEN

12/03/04

CHECKED

ISSUED

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

FINISH

SIZE

CAGE No  
**ORN63**

DWG. NO.

**21 - 033**

REV.

**B**

DO NOT SCALE DRAWING