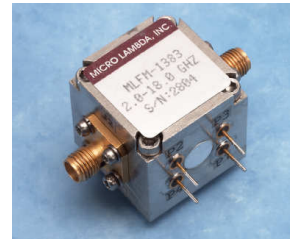


FEATURES

- 0.5-18.0 GHz Frequency Coverage
- 3 or 4 Stage Version
- Excellent Linearity
- Small Size



DESCRIPTION

The MICRO LAMBDA MLFM-Series 1" cube YIG filters cover the frequency range of 0.5 GHz to 18 GHz and are available with 15-40 MHz 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 1" cube line of filters are ideal for use in miniature receivers, and small micro-wave test equipment applications.

ELECTRICAL AND PERFORMANCE SPECIFICATIONS

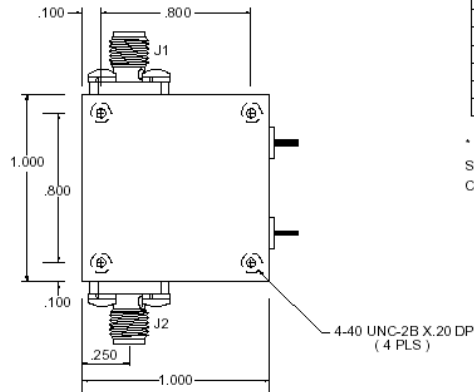
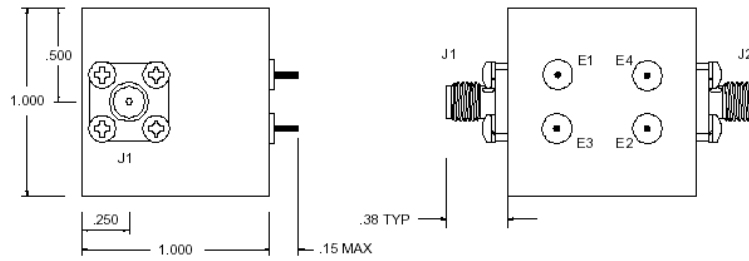
Guaranteed Specifications at -0° to $+65^{\circ}$ C Case Temperature (Note 2)

| Model No. | MLFM-30520 | MLFM-40540 | MLFM-42008 | MLFM-42018 | MLFM-46018 |
|-----------------------------------------|---------------|--------------------------------------|---------------|---------------|---------------|
| Frequency Range, Min. | 0.5-2 GHz | 0.5-4 GHz | 2-8 GHz | 2-18 GHz | 6-18 GHz |
| No. of Stages | 3 | 4 | 4 | 4 | 4 |
| 3dB Bandwidth, Min. (Note 1) | 15 MHz | 15 MHz | 30 MHz | 30 MHz | 40 MHz |
| Insertion Loss, Max. | 7 dB | 9 dB | 5 dB | 5 dB | 5 dB |
| Passband Spurs & Ripple, Max. | 2.0 dB | 2.0 dB | 2.0 dB | 2.0 dB | 2.0 dB |
| Passband VSWR, Max. | 2:1 | 2:1 | 2:1 | 2:1 | 2:1 |
| Selectivity, Typ. | 18 dB/ Octave | 24 dB/ Octave | 24 dB/ Octave | 24 dB/ Octave | 24 dB/ Octave |
| Off Resonance Isolation, Min. | 80 dB | 80 dB | 80 dB | 70 dB | 70 dB |
| Off Resonance Spurious, Min. | 50 dB | 50 dB | 50 dB | 40 dB | 40 dB |
| Limiting Level, Min. | 0 dBm | -5 dBm (.5-1 GHz) 0 dBm (1-4 GHz) | +10 dBm | +10 dBm | +10 dBm |
| Tuning Coil Characteristics | | | | | |
| Tuning Sensitivity, Typ. | 18 MHz/mA | 18 MHz/mA | 20 MHz/mA | 20 MHz/mA | 20 MHz/mA |
| Linearity, Max. | +/- 3 MHz | +/- 3 MHz | +/- 5 MHz | +/- 5 MHz | +/- 5 MHz |
| Hysteresis, Typ. | 5 MHz | 6 MHz | 6 MHz | 15 MHz | 10 MHz |
| Temperature Drift, Max. | 6 MHz | 10 MHz | 15 MHz | 15 MHz | 15 MHz |
| Coil Resistance, Typ. | 22 Ohms | 22 Ohms | 8 Ohms | 8 Ohms | 8 Ohms |
| Coil Inductance, Typ. | 35 mH | 35 mH | 35 mH | 40 mH | 40 mH |
| Heater Voltage | 20-30 Vdc | 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 | 500 mA |
| Steady State @ 25 deg. C. | 150 mA | 150 mA | 150 mA | 150 mA | 150 mA |
| Case Style | 21-010 | 21-011 | 21-011 | 21-011 | 21-011 |

Note: 1) Modified 3 dB Bandwidths available.

2) -54° C to $+85^{\circ}$ temperature available.

Outline Drawing: 21-010

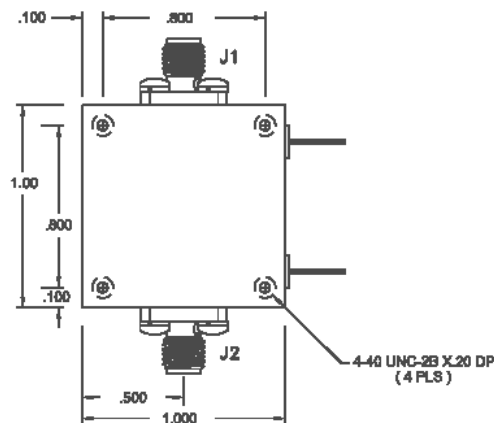
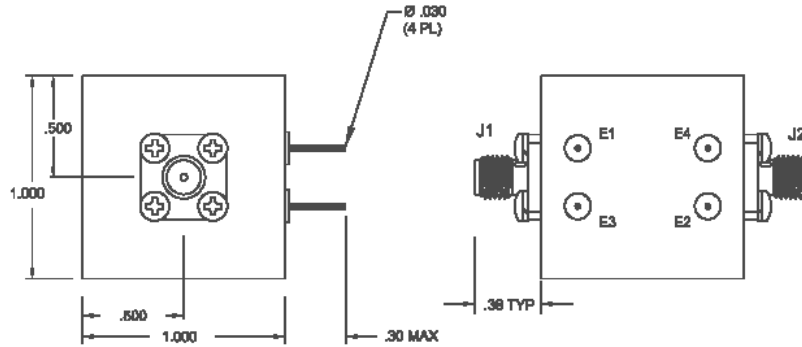


| CONN | FUNCTIONS |
|------|-----------|
| J1 | RF IN |
| J2 | RF OUT |
| E1 | + COIL |
| E2 | - COIL |
| E3 | HEATER |
| E4 | HEATER |

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

WEIGHT : 5 Oz. MAX

Outline Drawing: 21-011



| 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 : 4 Oz. MAX