

FEATURES

- 0.5-18.0 GHz Frequency Coverage
- Excellent Linearity
- Small Size



DESCRIPTION

The MICRO LAMBDA MLFD-Series of Dual-Two stage YIG bandpass filters offer excellent performance in a very small package size. They provide low insertion loss, flat response over the frequency band and excellent linearity. These filters offer the user, the ability to reduce the size of current system designs while providing the option of inter-stage amplification. The standard product line filters cover the frequency range of 0.5-18 GHz with 3 dB bandwidths from 15 to 30 MHz. They are specified with composite specifications, but can be ordered with special 3 dB bandwidths for each channel, including channel to channel frequency tracking. This miniature line of filters are ideal for portable test sets, miniature receivers and a variety of microwave test equipment applications.

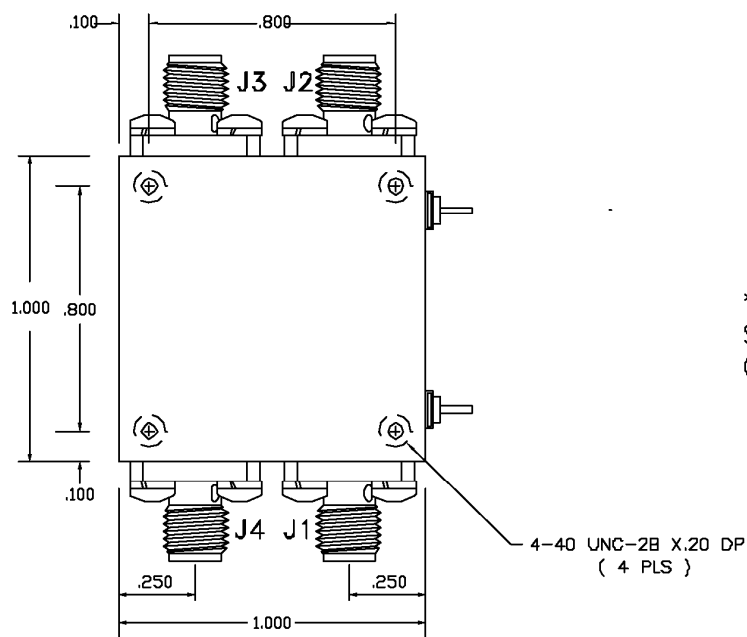
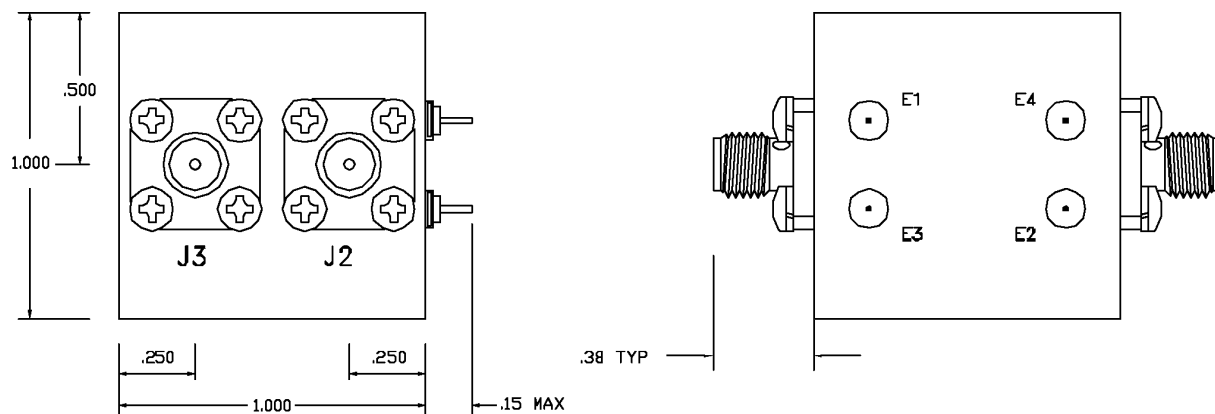
ELECTRICAL AND PERFORMANCE SPECIFICATIONS

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

Model No.	MLFD-40540	MLFD-42008	MLFD-42018	MLFD-46018
Frequency Range, Min.	0.5-4 GHz	2-8 GHz	2-18 GHz	6-18 GHz
No. of Stages	Dual-Two	Dual-Two	Dual-Two	Dual-Two
3dB Bandwidth, Min. (Note 1)	15 MHz	20 MHz	30 MHz	30 MHz
Insertion Loss, Max.	8 dB	5 dB	5 dB	4 dB
Channel Isolation, Min.	70 dB	70 dB	70 dB	70 dB
Passband Spurs & Ripple, Max.	1.5 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.	50 dB	50 dB	70 dB	70 dB
Off Resonance Spurious, Min.	30 dB	30 dB	40 dB	40 dB
Limiting Level, Min.	0 dBm	+10 dBm	+10 dBm	+10 dBm
Tuning Coil Characteristics				
Tuning Sensitivity, Typ.	18 MHz/mA	18 MHz/mA	20 MHz/mA	20 MHz/mA
Linearity, Max.	+/- 2 MHz	+/- 6 MHz	+/- 10 MHz	+/- 10 MHz
Hysteresis, Typ.	5 MHz	7 MHz	15 MHz	12 MHz
Temperature Drift, Max.	10 MHz	15 MHz	20 MHz	20 MHz
Coil Resistance, Typ.	22 Ohms	8 Ohms	8 Ohms	8 Ohms
Coil Inductance, Typ.	35 mH	35 mH	40 mH	40 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.	150 mA	150 mA	150 mA	150 mA
Case Style	21-005	21-005	21-005	21-005

Note: 1) Modified 3 dB Bandwidths Available.

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



CONN	FUNCTIONS
J1	RF IN CHAN. 1
J2	RF OUT CHAN. 1
J3	RF IN CHAN. 2
J4	RF OUT CHAN. 2
E1	+ COIL
E2	- COIL
E3	HEATER
E4	HEATER

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

WEIGHT : 5 Oz. MAX

UNLESS OTHERWISE SPECIFIED DIMENSIONS
ARE IN INCHES
TOLERANCE ARE :
FRACTIONS DECIMALS ANGLES
± .005 ± .010 ± .010
± .005 ± .005

CONTRACT NO.

APPROVALS DATE

DRAWN N.NGUYEN 5/2/97

CHECKED

ISSUED



MICRO LAMBDA, INC.

DUAL FILTER (1.00 ")

SIZE

CAGE No
ORN63

DWG. NO.

21 - 005

REV.

A

DO NOT SCALE DRAWING