



MICRO LAMBDA WIRELESS, INC.

MLFRD SERIES DUAL CHANNEL YIG BAND REJECT FILTERS 2-18 GHz

FEATURES

- 2-18 GHz Frequency Coverage
- Excellent Linearity
- 1.4" Cube Package



DESCRIPTION

The MICRO LAMBDA MLFRD-Series of Dual Channel Band Reject filters cover the frequency range of 2 GHz to 18 GHz. These filters offer excellent notch depth and precise bandwidths for rejection of unwanted signals. Standard frequency bands of 2 GHz to 6 GHz, 2 GHz to 8 GHz, 6 GHz to 18 GHz and 8 GHz to 18 GHz are provided. 3 dB bandwidths are 120 MHz with 40 dB bandwidths of 5 to 15 MHz are available in standard designs. These filters are well suited for broadband receivers and a variety of EW system applications. Standard configuration of 1.4" cubes are provided and can also be ordered with an Analog or Digital Driver.

ELECTRICAL AND PERFORMANCE SPECIFICATIONS

Guaranteed Specifications at -0° to $+65^{\circ}$ C Case Temperature ^(Note 1)

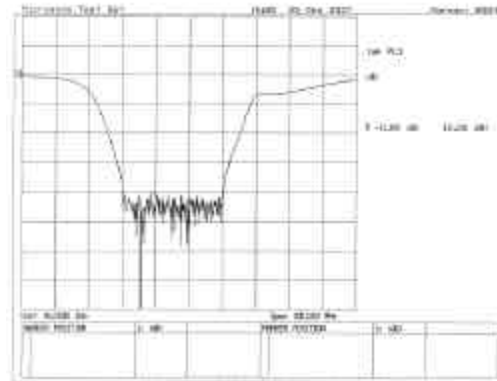
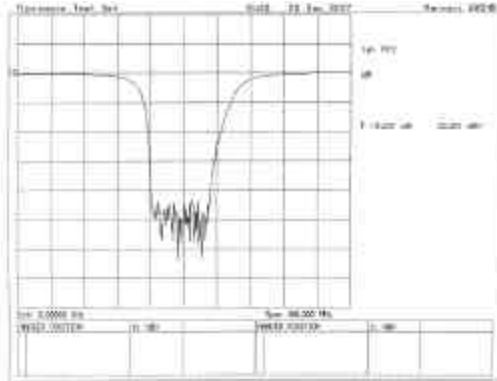
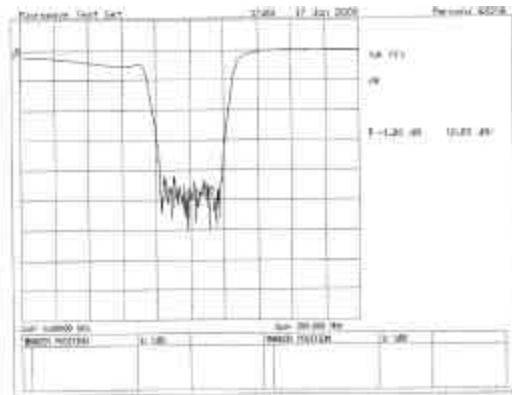
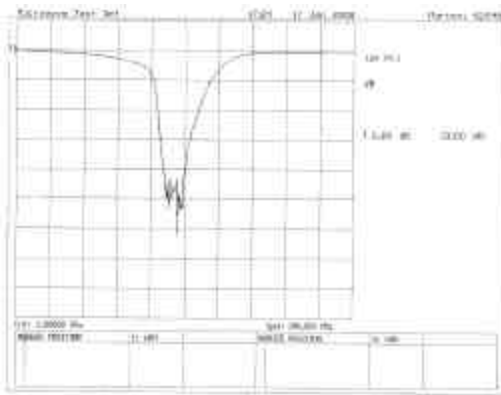
Model No.	MLFRD-0206	MLFRD-0208	MLFRD-0618	MLFRD-0818
Frequency Range, Min.	2-6 GHz	2-8 GHz	6-18 GHz	8-18 GHz
Reject Bandwidth (Each Channel)				
@ 40 dB, Min.	5 MHz	5 MHz	15 MHz	15 MHz
@ 40 dB, Max.	20 MHz	20 MHz	35 MHz	35 MHz
@ 3 dB, Max.	120 MHz	120 MHz	100 MHz	100 MHz
Passband VSWR, Max.	2:1	2:1	2:1	2:1
Passband Insertion Loss, Max.	2.0 dB	2.0 dB	2.0 dB	2.0 dB
Passband Range	DC-8 GHz	DC-8 GHz	DC-18 GHz	DC-18 GHz
Channel to Channel Tracking, Max.	3 MHz	3 MHz	5 MHz	5 MHz
Channel to Channel Isolation, Min.	50 dB	50 dB	50 dB	50 dB
Spurious, Max	4 dB	4 dB	4 dB	4 dB
Limiting Level, Min.	+5 dBm	+5 dBm	+10 dBm	+10 dBm
Max. Input Power, No Damage.	+28 dBm	+28 dBm	+28 dBm	+28 dBm
Tuning Coil Characteristics				
Tuning Sensitivity, Typ.	20 MHz/mA	20 MHz/mA	20 MHz/mA	20 MHz/mA
Linearity, Max.	+/- 3 MHz	+/- 3 MHz	+/- 5 MHz	+/- 5 MHz
Hysteresis, Typ.	5 MHz	5 MHz	10 MHz	10 MHz
Temperature Drift (0 to 65 deg. C), Max.	10 MHz	10 MHz	20 MHz	20 MHz
Coil Resistance, Typ.	8 Ohms	8 Ohms	8 Ohms	8 Ohms
Coil Inductance, Typ.	60 mH	60 mH	60 mH	60 mH
Heater Voltage	+28 Vdc	+28 Vdc	+28 Vdc	+28 Vdc
Heater Current-Surge, Max. @ 25 deg. C.	300 mA	300 mA	300 mA	300 mA
Steady State @ 25 deg. C.	100 mA	100 mA	100 mA	100 mA
Case Style	21-104	21-104	21-104	21-104

Note: 1.) Extended Temp. Range Available.

Performance Graphs (Typical)

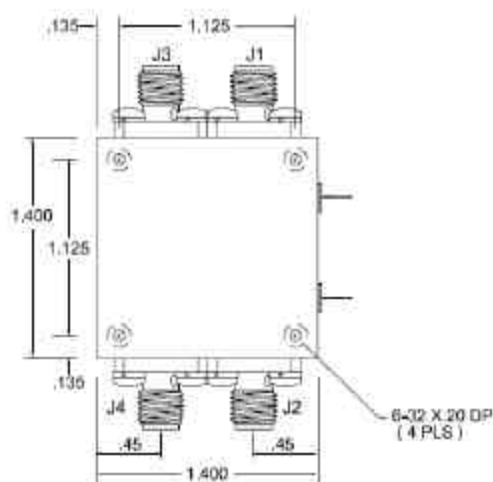
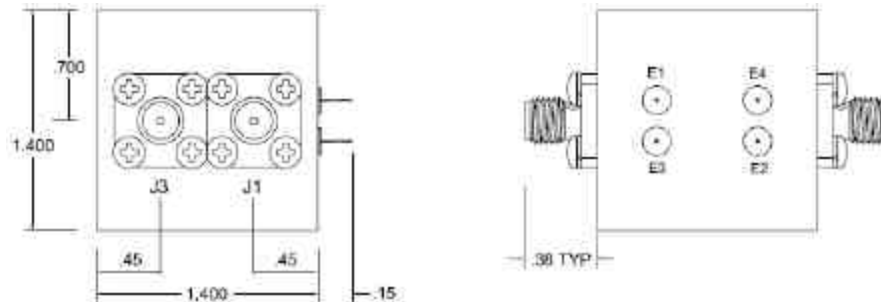
— 10 dB per Division

2-8 GHz



6-18 GHz

Case Drawing 21-104



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 : 13 Oz. MAX