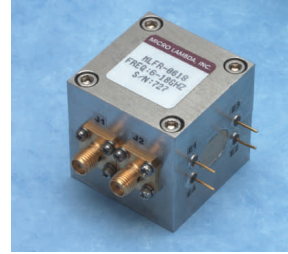




# MICRO LAMBDA WIRELESS, INC.

## MLFR SERIES MULTI-OCTAVE BAND YIG BAND REJECT FILTERS 4-18 GHz



### FEATURES

- 4-18 GHz Frequency Coverage
- Excellent Linearity
- 1.4" Cube Package
- 16 Stages

### DESCRIPTION

The MICRO LAMBDA MLFR-Series of Band Reject filters cover the frequency range of 4 GHz to 18 GHz. These filters offer excellent notch depth and precise bandwidths for rejection of unwanted signals. Standard frequency bands of 4 GHz to 18 GHz, 6 GHz to 18 GHz and 8 GHz to 18 GHz are provided. 3 dB bandwidths of 150 MHz with 40 dB bandwidths of 30 to 50 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, Digital or Serial Driver.

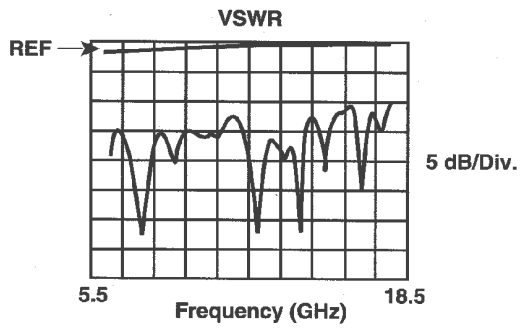
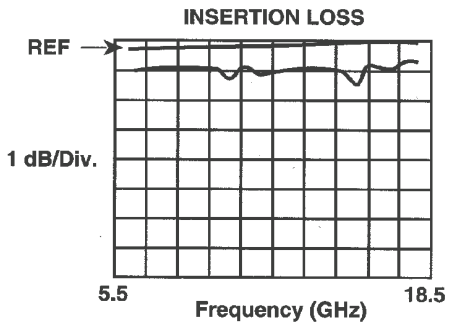
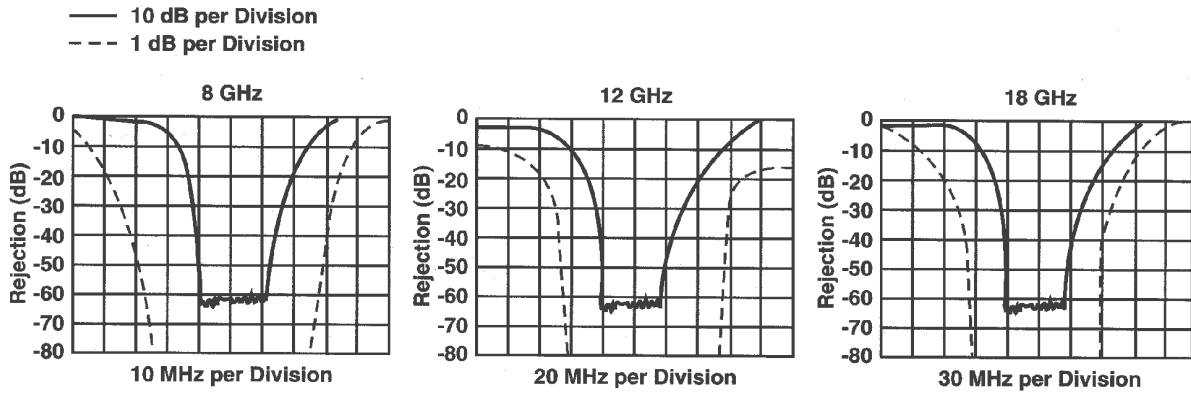
### ELECTRICAL AND PERFORMANCE SPECIFICATIONS

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

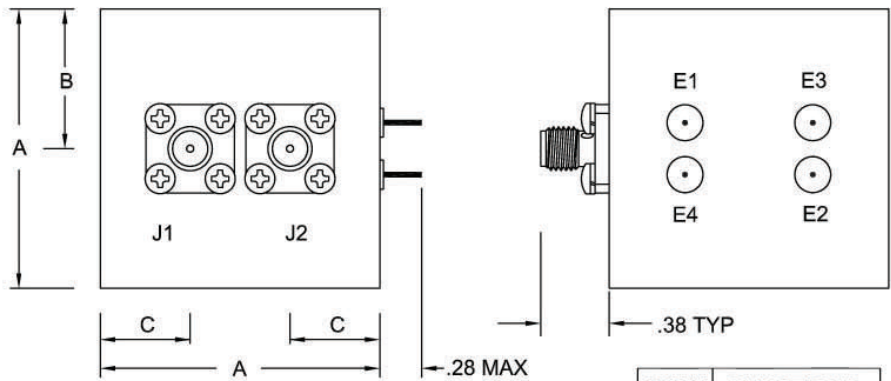
Model No.	MLFR-160418	MLFR-160618	MLFR-160818
Frequency Range, Min.	4-18 GHz	6-18 GHz	8-18 GHz
Reject Bandwidth			
@ 40 dB, Min.	30 MHz	40 MHz	50 MHz
@ 3 dB, Max.	150 MHz	150 MHz	150 MHz
Number of Stages	16	16	16
Passband VSWR, Max.	2:1	2:1	2:1
Passband Insertion Loss, Max.	1.75 dB	1.75 dB	1.75 dB
Passband Range	DC-18 GHz	DC-18 GHz	DC-18 GHz
Spurious, Max	4 dB	4 dB	4 dB
Limiting Level, Min.	+10 dBm	+10 dBm	+13 dBm
Max. Input Power, No Damage.	+28 dBm	+28 dBm	+28 dBm
Tuning Coil Characteristics			
Tuning Sensitivity, Typ.	20 MHz/mA	20 MHz/mA	20 MHz/mA
Linearity, Max.	+/- 5 MHz	+/- 5 MHz	+/- 5 MHz
Hysteresis, Typ.	12 MHz	12 MHz	12 MHz
Temperature Drift (0 to 60 deg. C), Max.	15 MHz	15 MHz	15 MHz
Coil Resistance, Typ.	7 Ohms	7 Ohms	6 Ohms
Coil Inductance, Typ.	70 mH	70 mH	60 mH
Heater Voltage	+28 Vdc	+28 Vdc	+28 Vdc
Heater Current-Surge, Max. @ 25 deg. C.	300 mA	300 mA	300 mA
Steady State @ 25 deg. C.	100 mA	100 mA	100 mA
Case Style <sup>(Note 2)</sup>	21-018	21-018	21-018

Note: 1.) Extended Temp. Range Available.  
2.) 1.7" Case available.

# Performance Graphs (Typical)

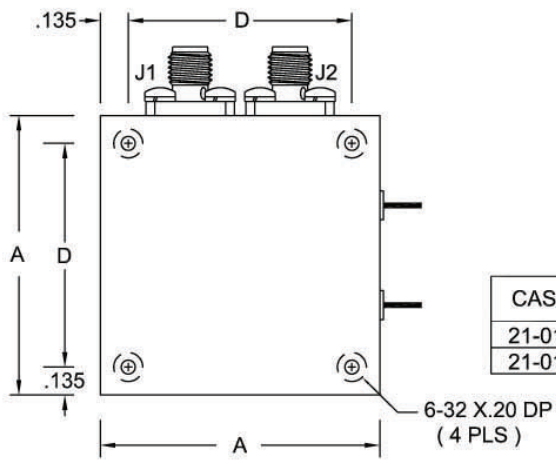


CASE DRAWING 21-018 / 21-019



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



CASE	A	B	C	D	WEIGHT
21-018	1.400	.700	.45	1.125	13 Oz.
21-019	1.700	.850	.54	1.430	15 Oz.