

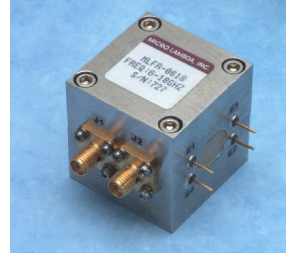


# MICRO LAMBDA WIRELESS, INC.

## MLFR SERIES MULTI-OCTAVE BAND YIG BAND REJECT FILTERS .5-18 GHz

### FEATURES

- .5-18 GHz Frequency Coverage
- Excellent Linearity
- 1.4" Cube Package
- Up to 16 Stages



### DESCRIPTION

The MICRO LAMBDA MLFR-Series of Band Reject filters cover the frequency range of .5 GHz to 18 GHz. These filters offer excellent notch depth and precise bandwidths for rejection of unwanted signals. Standard frequency bands of .5 GHz to 2 GHz, 2 GHz to 6 GHz, 2 GHz to 8 GHz and 6 GHz to 18 GHz are provided. 3 dB bandwidths are 150 MHz with 40 dB bandwidths of 5 to 25 MHz are available in standard designs. Modified 3 dB and 40 dB bandwidths are available on special order. 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.

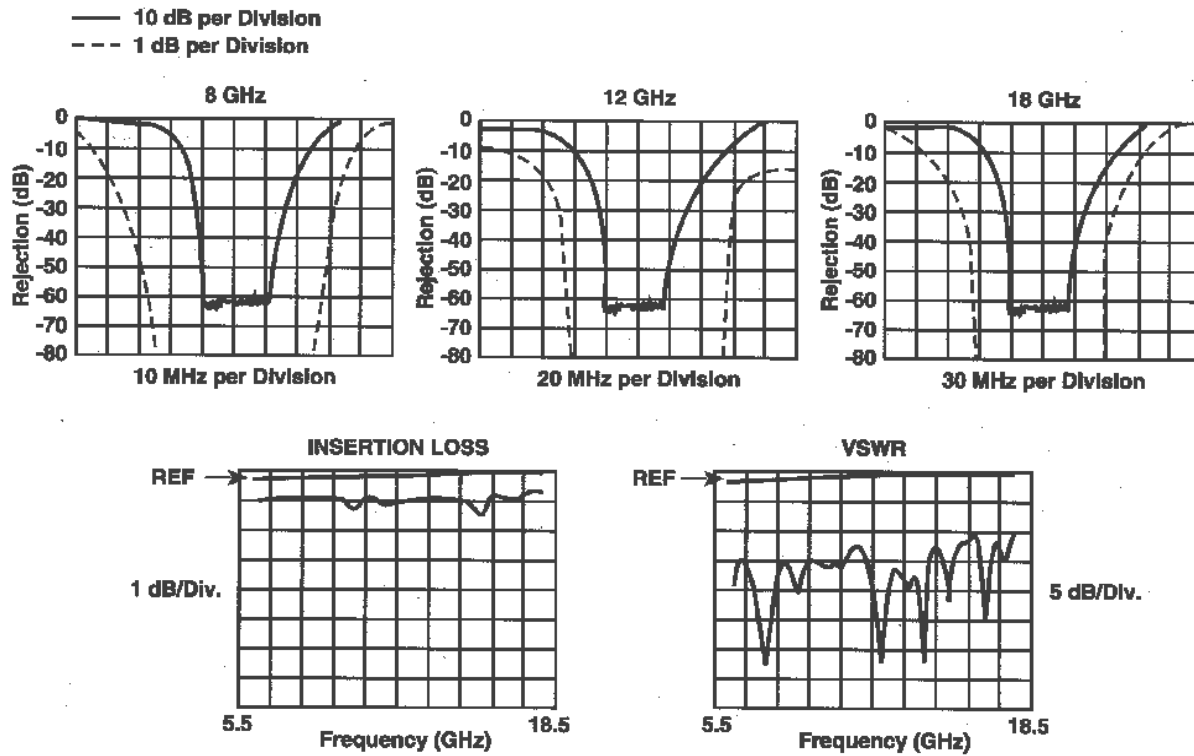
### ELECTRICAL AND PERFORMANCE SPECIFICATIONS

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

Model No.	MLFR-0502	MLFR-0208	MLFR-0212	MLFR-0618
Frequency Range, Min.	.5-2 GHz	2-8 GHz	2-12 GHz	6-18 GHz
Reject Bandwidth				
@ 30 dB, Min. (.5-.65 GHz)	5 MHz	-	-	-
@ 40 dB, Min. (> .65 GHz)	7 MHz	15 MHz	10 MHz	25 MHz
@ 3 dB, Max.	100 MHz	150 MHz	150 MHz	150 MHz
Passband VSWR, Max.	2:1	2:1	2:1	2:1
Passband Insertion Loss, Max.	2.0 dB	1.5 dB	1.5 dB	1.75 dB
Passband Range	DC-3 GHz	DC-10 GHz	DC-18 GHz	DC-18 GHz
Spurious, Max	4 dB	4 dB	4 dB	4 dB
Limiting Level, Min.	0 dBm	+10 dBm	+10 dBm	+13 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	+/- 5 MHz	+/- 5 MHz	+/- 5 MHz
Hysteresis, Typ.	2 MHz	6 MHz	10 MHz	12 MHz
Temperature Drift (0 to 60 deg. C), Max.	8 MHz	10 MHz	12 MHz	15 MHz
Coil Resistance, Typ.	8 Ohms	7 Ohms	7 Ohms	6 Ohms
Coil Inductance, Typ.	80 mH	70 mH	70 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 <sup>(Note 2)</sup>	21-018	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

