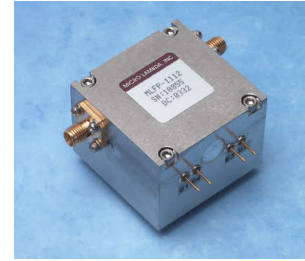




# MICRO LAMBDA WIRELESS, INC.

## LOW RIPPLE & GROUP DELAY YIG BANDPASS FILTERS 500 MHz BANDPASS



### FEATURES

- 6-20 GHz Frequency Coverage
- 2 nSec. Group Delay
- 1.5 dB Bandpass Ripple
- High Selectivity (42 dB/Octave)

### DESCRIPTION

The MICRO LAMBDA MLFP-L Series line of 7-stage YIG bandpass filters provide high selectivity in a low profile 1.7" package size. These filters offer excellent image rejection with customer selected 3 dB bandwidths. Standard frequency bands include 6-18 GHz, 8-18 GHz, and 8-20 GHz frequency coverage with 3 dB bandwidths of 500 MHz. These filters provide excellent linearity, low frequency drift and very flat 3 dB bandwidth response over the frequency range. These filters are suited for very sensitive broadband receivers, down-converters and a variety of microwave test equipment applications.

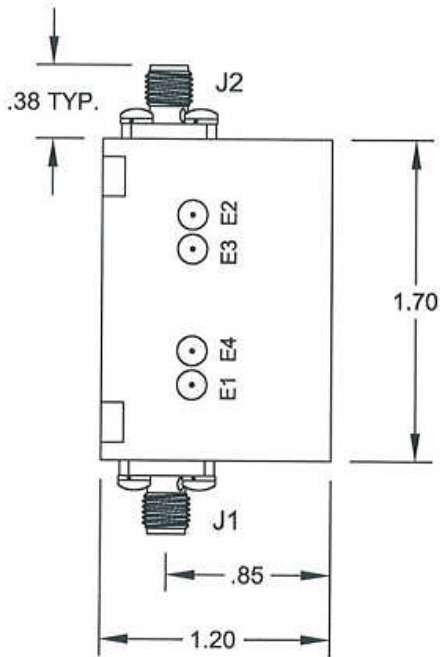
### ELECTRICAL AND PERFORMANCE SPECIFICATIONS

Guaranteed Specifications at 0° to +65° C Case Temperature (Note 2)

Model No.	MLFP-76018L	MLFP-78018L	MLFP-78020L
Frequency Range, Min.	6-18 GHz	8-18 GHz	8-20 GHz
No. of Stages	7	7	7
3dB Bandwidth, Min. (Note 1)	500 MHz	500 MHz	500 MHz
Insertion Loss, Max.	6.5 dB	6.5 dB	6.5 dB
Passband Spurs & Ripple, Max. (over 85 % of centered 3 dB bandwidth)	1.5 dB	1.5 dB	1.5 dB
Group Delay	< 2 nS	< 2 nS	< 2 nS
Passband VSWR, Max.	2:1	2:1	2:1
Selectivity, Typ.	42 dB/ Octave	42 dB/ Octave	42 dB/ Octave
Off Resonance Isolation, Min.	100 dB	100 dB	100 dB
Off Resonance Spurious, Min.	70 dB	70 dB	70 dB
Limiting Level, Min.	+5 dBm	+5 dBm	+5 dBm
<b>Tuning Coil Characteristics</b>			
Tuning Sensitivity, Typ.	20 MHz/mA	20 MHz/mA	20 MHz/mA
Linearity, Max.	+/- 30 MHz	+/- 30 MHz	+/- 30 MHz
Hysteresis, Typ.	20 MHz	20 MHz	20 MHz
Temperature Drift, Max.	30 MHz	30 MHz	30 MHz
Coil Resistance, Typ.	7 Ohms	7 Ohms	7 Ohms
Coil Inductance, Typ.	60 mH	60 mH	60 mH
Heater Voltage	20-30 Vdc	20-30 Vdc	20-30 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	21-017	21-017	21-017

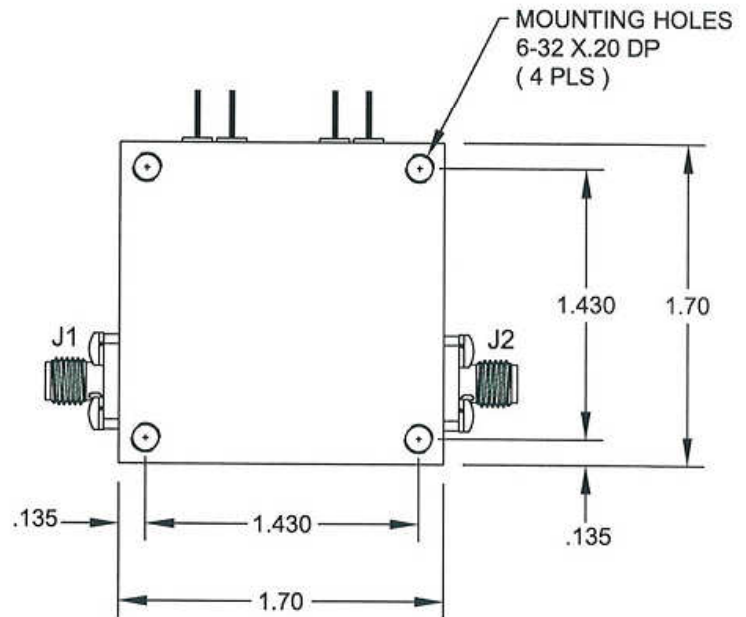
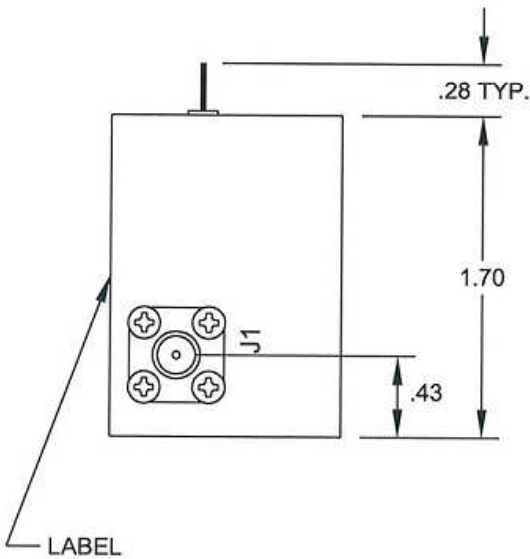
Note: 1) Modified 3 dB Bandwidths Available.

2) -54°C to +85°temperature available.



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 : 12 Oz. MAX**

UNLESS OTHERWISE SPECIFIED DIMENSIONS  
ARE IN INCHES  
TOLERANCE ARE:  
FRACTIONS DECIMALS ANGLES  
• .01 ± .02  
• .001 ± .010

MATERIAL  
CARPENTER 49

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN N.NGUYEN	7/26/10
CHECKED <i>[Signature]</i>	7/28/10
ISSUED <i>[Signature]</i>	



**MICRO LAMBDA WIRELESS, INC.**

*FILTER (1.7" X 1.2")*

SIZE	CAGE No	DWG. NO.	REV.
	0RN63	21 - 017	A