

# Plug-In Bandpass Filter

## PIF-70+

50Ω Constant Impedance 58 to 82 MHz

### Maximum Ratings

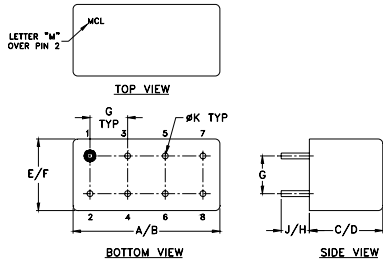
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

INPUT	1
OUTPUT	6
GROUND	2,3,4,5,7,8
CASE GROUND	2,5,7,8

### Outline Drawing



### Outline Dimensions (inch/mm)

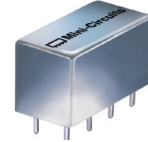
A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K		wt
.200	.20	.14	.031		grams
5.08	5.08	3.56	0.79		5.2

### Features

- low VSWR in pass & stopbands, 1.3:1 typ.
- shielded welded case, hermetically sealed
- custom designs available

### Applications

- harmonic rejection
- lab use
- military/hi-rel applications



CASE STYLE: A01

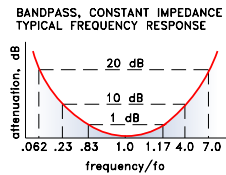
### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

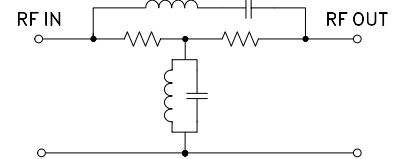
### Bandpass Filter Electrical Specifications

MODEL NO.	CENTER FREQ. (MHz)	PASSBAND (MHz) (loss < 1 dB)	STOPBANDS		VSWR, 1.3:1 Typ. TOTAL BAND (MHz)
			(loss > 10 dB) at MHz	(loss > 20 dB) at MHz	
PIF-70+	70	58-82	16 & 280	4.4 & 490	DC-550

### typical frequency response

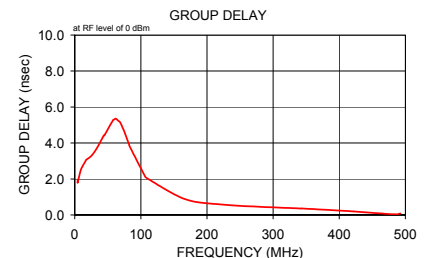
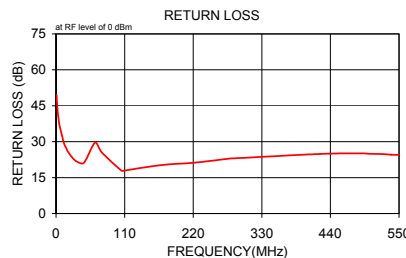


### electrical schematic



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	$\sigma$			
1.0	36.56	0.2	49.5	4.4	1.965
1.7	32.08	0.2	45.9	4.5	1.803
2.4	29.16	0.2	43.7	8.4	2.416
3.0	27.01	0.2	41.6	12.2	2.736
3.7	25.26	0.2	40.1	16.1	2.984
4.4	23.82	0.2	38.7	17.0	3.059
6.0	21.13	0.2	36.2	26.2	3.326
12.7	14.61	0.2	29.4	35.1	3.817
16.0	12.53	0.2	27.5	43.9	4.422
20.0	10.51	0.2	25.5	44.7	4.419
28.3	7.27	0.2	22.7	57.9	5.270
36.7	4.76	0.2	21.3	58.9	5.288
45.0	2.79	0.1	21.3	62.0	5.357
58.0	0.77	0.1	27.9	65.3	5.248
63.7	0.34	0.1	29.7	68.8	5.146
70.0	0.24	0.1	26.9	72.4	4.843
74.7	0.35	0.1	25.1	75.0	4.639
105.0	2.87	0.1	17.9	79.0	4.231
110.0	3.34	0.2	18.0	81.8	3.959
166.7	7.80	0.2	20.2	83.2	3.803
223.3	11.10	0.2	21.3	105.9	2.168
280.0	13.80	0.3	23.0	107.8	2.082
290.0	14.28	0.3	23.1	166.0	0.886
423.3	20.50	0.9	24.9	222.6	0.581
490.0	24.04	1.4	25.1	278.6	0.458
500.0	24.60	1.5	25.0	342.8	0.360
512.5	25.30	1.5	24.9	348.7	0.351
525.0	25.98	1.6	24.8	421.7	0.199
537.5	26.70	1.6	24.6	484.2	0.031
550.0	27.34	1.4	24.5	492.6	0.079



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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