

Surface Mount Low Pass Filter

SCLF-36+

50Ω DC to 36 MHz

Maximum Ratings

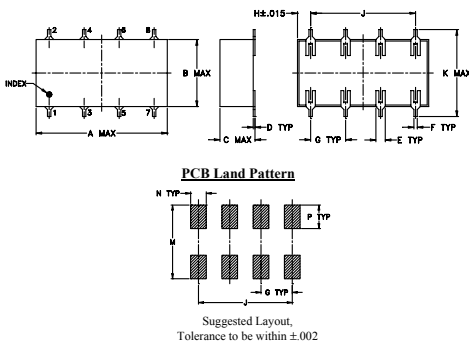
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

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

Pin Connections

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

Outline Drawing

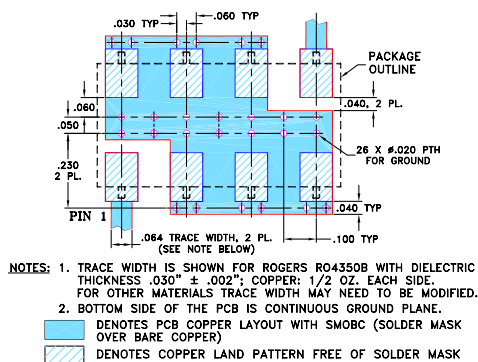


Outline Dimensions (Inch)

A	B	C	D	E	F	G
0.75	0.38	0.28	0.01	0.05	0.02	0.2
19.05	9.65	7.11	0.25	1.27	0.51	5.08

H	J	K	M	N	P	wt
0.075	0.6	0.45	0.47	0.1	0.15	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.60

Demo Board MCL P/N: TB-187+ Suggested PCB Layout (PL-049)



- NOTES:
1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- wide selection of cut-off frequencies
- excellent rejection
- custom models available

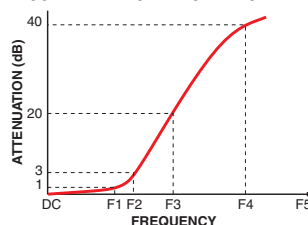
Applications

- defense communications
- receivers/transmitters
- harmonic rejection of VCOs

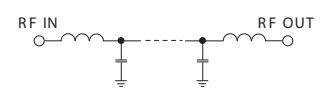
Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	—	—	1.0	dB
	Freq. Cut-Off	F2	—	3.0	—	dB
	VSWR	DC-F1	—	1.3	—	:1
Stop Band	Rejection Loss	F3-F4	20	—	—	dB
		F4-F5	40	—	—	dB
	VSWR	F3-F5	—	18	—	:1

Typical Frequency Response



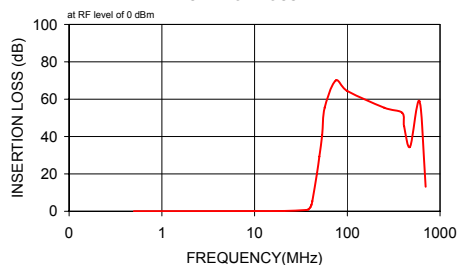
Electrical Schematic



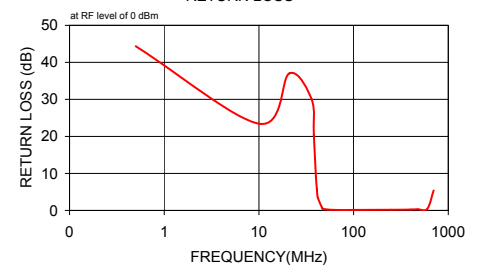
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
	$\bar{x}$	σ
0.5	0.04	0.01
10.0	0.12	0.01
21.0	0.19	0.00
36.0	0.69	0.02
38.0	1.01	0.09
40.0	2.15	0.43
41.0	3.46	0.75
42.0	5.43	1.10
47.0	20.04	1.73
50.0	29.32	1.89
53.5	40.73	2.28
57.0	55.47	3.70
75.0	70.03	1.62
100.0	64.38	1.98
250.0	55.42	0.41
390.0	52.74	0.39
410.0	45.55	0.30
475.0	34.55	0.53
600.0	58.90	4.73
700.0	13.15	4.92

INSERTION LOSS



RETURN LOSS



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