

Surface Mount Low Pass Filter

SCLF-30+ SCLF-30

50Ω DC to 30 MHz

Maximum Ratings

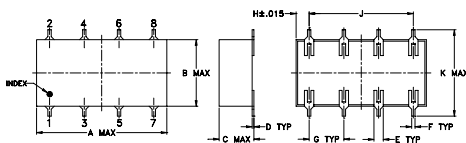
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

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

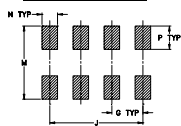
Pin Connections

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

Outline Drawing



PCB Land Pattern

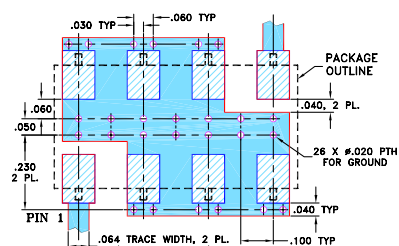


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch)

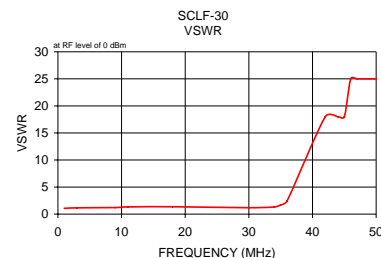
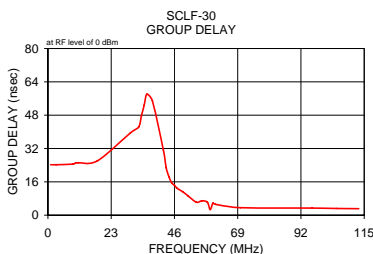
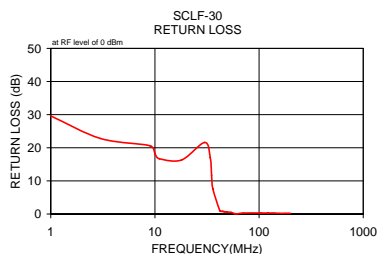
A	B	C	D	E	F	G
0.75	0.38	0.28	0.01	0.05	0.02	0.2
19.05	9.65	7.11	0.25	1.27	0.51	5.08
H	J	K	M	N	P	wt
0.075	0.6	0.45	0.47	0.1	0.15	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.60

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



CASE STYLE: YY161
PRICE: \$11.45 ea. QTY (1-9)

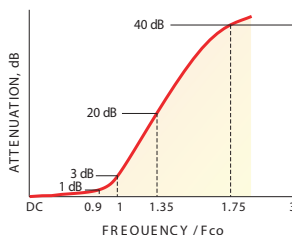
+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

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

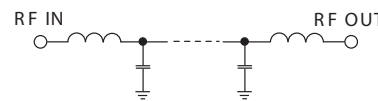
Low Pass Filter Electrical Specifications

PASSBAND (MHz)	f _{co} , (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
(loss < 1 dB)	(loss 3 dB)	(loss > 20 dB)	(loss > 40 dB)	Pass band Typ.	Stop band Typ.
DC-30	35	47-61	61-200	1.7	18

typical frequency response



Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{x}	σ			
1.00	0.04	0.10	29.60	1.00	24.20
3.00	0.07	0.10	22.80	3.00	24.20
9.00	0.13	0.10	20.60	9.00	24.50
10.00	0.15	0.10	18.20	10.00	25.00
11.00	0.17	0.10	16.70	11.00	25.20
18.00	0.27	0.10	16.30	18.00	26.10
30.00	0.45	0.10	21.60	30.00	39.50
34.00	0.59	0.10	17.00	33.00	42.30
35.00	0.90	0.20	11.70	34.00	47.70
36.00	1.64	0.50	7.60	35.00	52.80
42.00	14.01	1.80	1.00	36.00	58.10
44.00	18.75	1.70	0.80	38.00	54.80
45.00	20.87	1.70	0.80	42.00	31.20
46.00	22.85	1.60	0.70	43.00	22.80
47.00	24.78	1.60	0.70	44.00	18.50
49.00	28.37	1.50	0.60	45.00	15.50
54.00	36.33	1.40	0.50	46.00	14.40
58.00	41.83	1.10	0.10	47.00	12.90
59.00	43.10	1.10	0.10	49.00	11.30
60.00	44.18	1.10	0.10	51.00	9.20
61.00	45.51	0.90	0.00	54.00	6.20
70.00	55.55	1.50	0.30	56.00	6.90
105.00	77.30	9.90	0.30	58.00	6.20
122.00	73.76	4.40	0.30	59.00	2.70
139.00	78.03	9.10	0.30	60.00	5.80
157.00	74.23	4.80	0.20	61.00	5.20
174.00	79.94	4.80	0.20	70.00	3.60
183.00	75.66	3.00	0.20	96.00	3.40
191.00	77.64	7.00	0.20	105.00	3.20
200.00	75.91	6.00	0.20	113.00	3.10



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