

# Surface Mount Low Pass Filter

## SCLF-1000+ SCLF-1000

50Ω DC to 1000 MHz

### Maximum Ratings

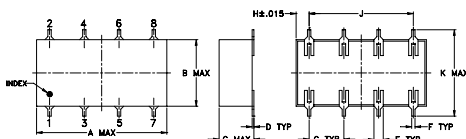
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

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

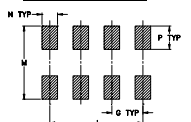
### Pin Connections

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

### Outline Drawing



### PCB Land Pattern

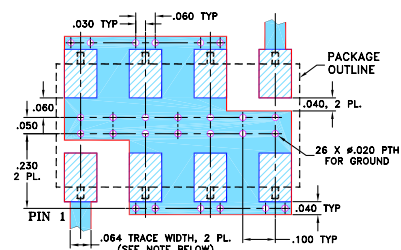


Suggested Layout,  
Tolerance to be within ±.002

### 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: \$12.95 ea. QTY (1-9)

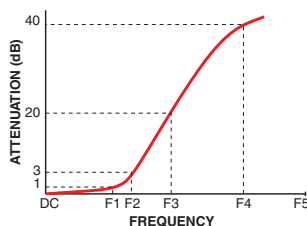
+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

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

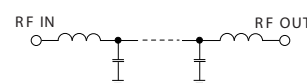
### Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-1000	—	—	1.0	dB
	Freq. Cut-Off	F2	1200	—	3.0	—	dB
	VSWR	DC-F1	DC-1000	—	1.7	—	:1
Stop Band	Rejection Loss	F3-F4	1620-2100	20	—	—	dB
		F4-F5	2100-2500	40	—	—	dB
	VSWR	F3-F5	1620-2500	—	18	—	:1

### Typical Frequency Response

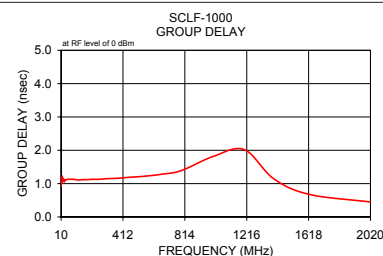
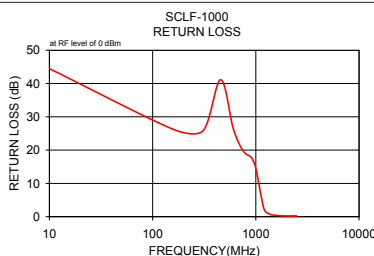
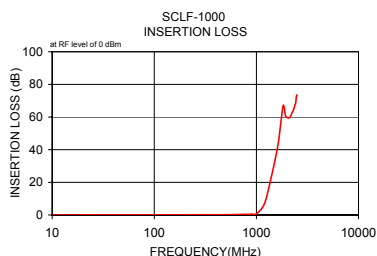


### Electrical Schematic



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	$\sigma$		
10.00	0.00	0.00	10.00	0.90
158.80	0.10	0.00	12.00	1.10
307.50	0.20	0.00	25.80	1.00
456.30	0.20	0.00	41.20	1.20
605.00	0.30	0.00	26.40	1.10
753.80	0.40	0.00	24.70	1.20
902.50	0.50	0.00	29.60	1.10
1000.00	0.80	0.10	14.60	1.10
1200.00	7.00	1.50	2.30	42.50
1400.00	23.40	1.76	0.60	50.90
1444.00	27.10	1.78	0.50	61.00
1488.00	30.80	1.80	0.50	73.10
1532.00	34.50	1.90	0.40	87.60
1576.00	38.40	2.00	0.40	104.90
1620.00	42.40	2.30	0.40	125.70
1664.00	46.80	2.60	0.30	150.50
1751.20	58.50	4.40	0.30	180.30
1838.40	67.20	4.00	0.20	216.00
1925.60	60.90	1.90	0.20	258.70
2012.80	59.60	1.40	0.20	313.40
2106.00	59.60	1.30	0.20	375.50
2188.00	61.20	1.10	0.20	454.90
2227.00	62.60	1.40	0.20	544.90
2266.00	63.30	1.60	0.20	660.10
2305.00	64.30	1.50	0.20	790.70
2344.00	65.40	1.90	0.20	1000.00
2383.00	67.40	2.50	0.20	1200.00
2422.00	68.40	1.70	0.20	1390.20
2461.00	72.40	4.90	0.20	1620.00
2500.00	73.60	3.40	0.20	2017.50



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

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SCLF-1000  
100120