

# Surface Mount Low Pass Filter

## SCLF-36+ SCLF-36

50Ω DC to 36 MHz

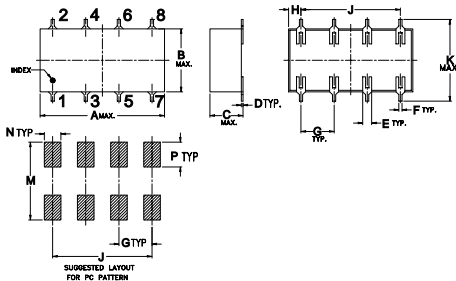
### Maximum Ratings

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

### Pin Connections

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

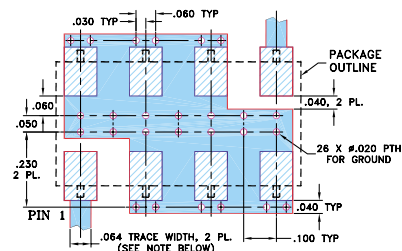
### Outline Drawing



### Outline Dimensions (inch/mm)

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
0.07	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: \$8.95 ea. QTY (1-9)

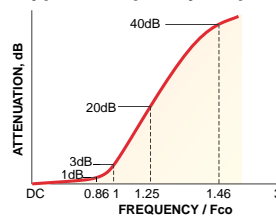
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

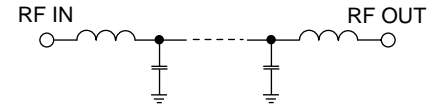
### Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, (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-36	40	50-57	57-390	1.3	18

### typical frequency response



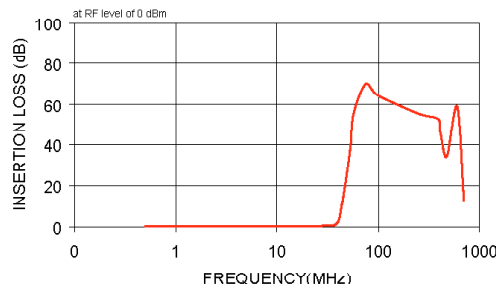
### electrical schematic



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	$\bar{x}$	$\sigma$	
0.5	0.04	0.01	44.37
10.0	0.12	0.01	23.43
21.0	0.19	0.00	37.01
36.0	0.69	0.02	30.06
38.0	1.01	0.09	20.37
40.0	2.15	0.43	9.08
41.0	3.46	0.75	5.67
42.0	5.43	1.10	3.42
47.0	20.04	1.73	0.51
50.0	29.32	1.89	0.31
53.5	40.73	2.28	0.22
57.0	55.47	3.70	0.17
75.0	70.03	1.62	0.10
100.0	64.38	1.98	0.13
250.0	55.42	0.41	0.19
390.0	52.74	0.39	0.23
410.0	45.55	0.30	0.26
475.0	34.55	0.53	0.32
600.0	58.90	4.73	0.40
700.0	13.15	4.92	5.40

### SCLF-36 INSERTION LOSS



### SCLF-36 RETURN LOSS

