Surface Mount

Low Pass Filter

SCLF-700+
SCLF-700

50Ω DC to 700 MHz

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.

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

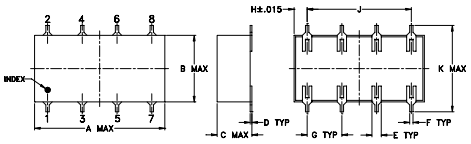
Features

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

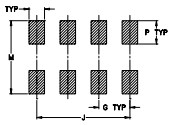
Applications

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

Outline Drawing



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

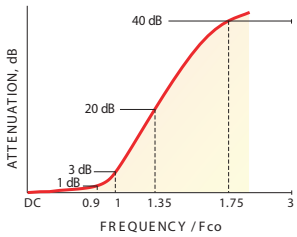
A	B	C	D	E	F	G
0.75	0.38	0.28	0.01	0.05	0.02	0.2
19.05	9.65	7.11	0.25	1.27	0.51	5.08

H	J	K	M	N	P	wt
0.075	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

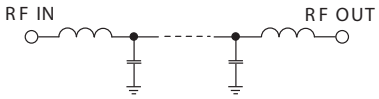
Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
				Pass band	Stop band
(loss <1 dB)	(loss 3 dB)	(loss > 20 dB)	(loss > 40 dB)	Typ.	Typ.
DC-700	770	1000-1300	1300-2000	1.7	18

typical frequency response



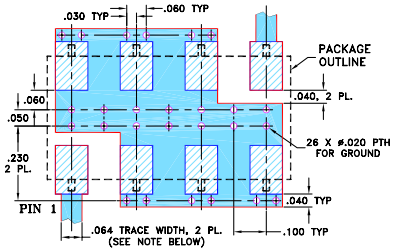
Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	0.03	0.00	40.31	10.00	1.49
105.00	0.10	0.01	23.01	11.85	1.48
200.00	0.15	0.01	21.02	14.13	1.32
295.00	0.18	0.02	24.09	16.66	1.50
390.00	0.21	0.01	32.41	19.87	1.48
485.00	0.28	0.01	36.21	23.44	1.48
580.00	0.41	0.02	24.66	27.95	1.48
700.00	0.71	0.08	24.05	32.97	1.46
750.00	1.69	0.48	9.65	39.32	1.44
770.00	2.84	0.73	6.00	46.38	1.46
790.00	4.60	0.94	3.68	55.31	1.44
874.00	15.12	1.04	0.85	65.24	1.46
916.00	20.37	0.95	0.65	77.80	1.43
958.00	25.26	0.87	0.56	91.76	1.44
1000.00	29.87	0.81	0.51	109.43	1.44
1042.00	34.21	0.77	0.49	129.07	1.44
1093.60	39.27	0.71	0.45	153.93	1.45
1145.20	44.02	0.69	0.42	181.56	1.46
1196.80	48.51	0.67	0.39	216.52	1.47
1248.40	52.85	0.79	0.35	255.38	1.50
1300.00	56.02	0.93	0.32	304.56	1.53
1350.00	58.93	1.15	0.27	359.23	1.58
1431.30	61.47	1.39	0.20	428.40	1.65
1512.50	62.21	1.27	0.13	505.29	1.77
1593.80	62.37	1.17	0.06	602.59	2.03
1675.00	62.10	1.10	0.01	700.00	2.69
1756.30	61.44	0.94	0.06	770.00	3.30
1837.50	60.59	0.85	0.09	1000.00	1.09
1918.80	59.96	0.75	0.10	1300.00	0.62
2000.00	60.93	0.73	0.11	1406.29	0.76

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

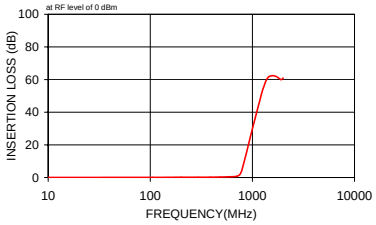


NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

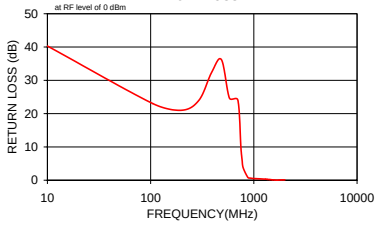
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

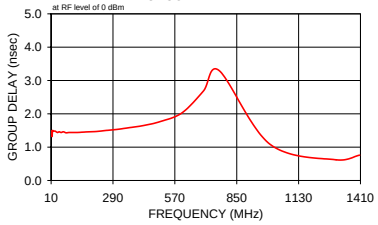
SCLF-700
INSERTION LOSS



SCLF-700
RETURN LOSS



SCLF-700
GROUP DELAY



REV. D
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