

Surface Mount Low Pass Filter

50Ω DC to 135 MHz

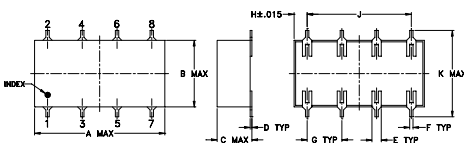
Maximum Ratings

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.	

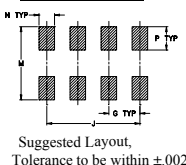
Pin Connections

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

Outline Drawing



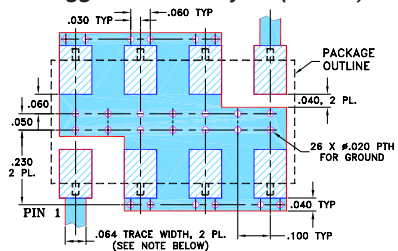
PCB Land Pattern



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

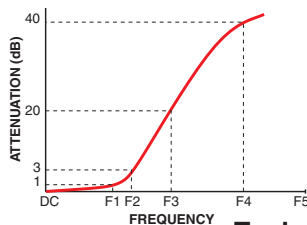
Applications

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

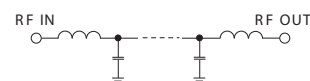
Electrical Specifications

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-135	—	—	1.0	dB
	Freq. Cut-Off	F2	155	—	3.0	—	dB
	VSWR	DC-F1	DC-135	—	1.7	—	:1
Stop Band	Rejection Loss	F3-F4	210-300	20	—	—	dB
		F4-F5	300-600	40	—	—	dB
	VSWR	F3-F5	210-600	—	18	—	:1

Typical Frequency Response



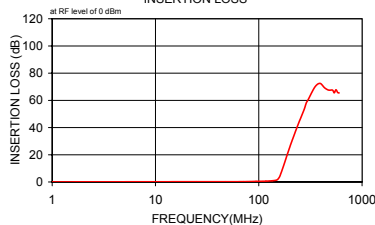
Electrical Schematic



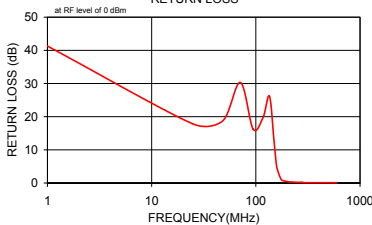
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ		
1.00	0.03	0.10	1.00	6.05
25.00	0.18	0.10	25.00	5.85
48.00	0.22	0.10	48.00	6.15
71.00	0.25	0.10	71.00	6.57
94.00	0.45	0.10	94.00	6.98
117.00	0.57	0.10	117.00	8.09
135.00	0.87	0.10	135.00	10.40
149.00	1.42	0.10	13.10	11.86
155.00	2.54	0.20	7.40	12.96
160.00	4.29	0.40	4.40	13.89
175.00	12.53	0.70	1.10	14.12
189.00	20.35	0.80	0.60	13.84
196.00	23.89	0.80	0.50	10.81
203.00	27.23	0.80	0.40	7.92
210.00	30.34	0.90	0.30	6.03
220.00	34.51	0.90	0.30	4.24
243.00	43.15	1.10	0.20	3.35
266.00	50.60	1.10	0.20	3.35
278.00	54.30	2.20	0.20	2.98
289.00	58.28	3.60	0.10	0.92
300.00	60.35	2.80	0.10	1.88
350.00	69.91	4.30	0.10	0.04
392.00	72.49	2.50	0.10	1.02
434.00	69.22	3.40	0.10	6.80
475.00	67.52	1.50	0.10	0.42
517.00	67.56	2.10	0.10	0.70
538.00	65.57	1.80	0.10	0.65
559.00	67.78	3.00	0.10	0.63
580.00	65.80	2.40	0.10	0.61
600.00	65.48	2.60	0.10	0.60

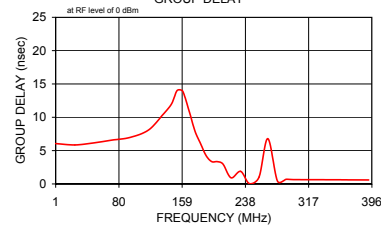
SCLF-135
INSERTION LOSS



SCLF-135
RETURN LOSS



SCLF-135
GROUP DELAY



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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REV. E
M151107
SCLF-135
150928

SCLF-135+
SCLF-135



CASE STYLE: YY161

+RoHS Compliant

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