

Surface Mount Low Pass Filter

50Ω DC to 380 MHz

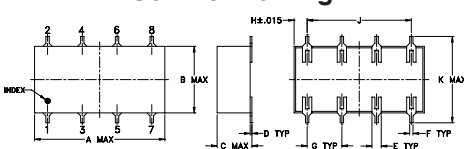
Maximum Ratings

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.	

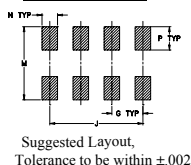
Pin Connections

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

Outline Drawing



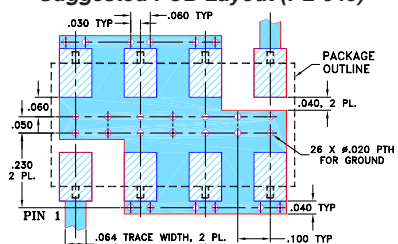
PCB Land Pattern



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

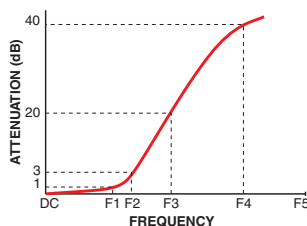
- defense communications
- receivers/transmitters
- harmonic rejection of VCOs

Electrical Specifications

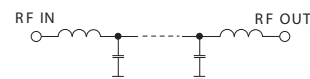
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-380	—	—	1.0 dB
	Freq. Cut-Off	F2	440	—	3.0	dB
	VSWR	DC-F1	DC-380	—	1.7	:1
Stop Band	Rejection Loss	F3-F4	580-750	20	—	dB
		F4-F5	750-1800*	40	—	dB
	VSWR	F3-F5	750-1800	—	18	:1

* Loss > 35 dB

Typical Frequency Response

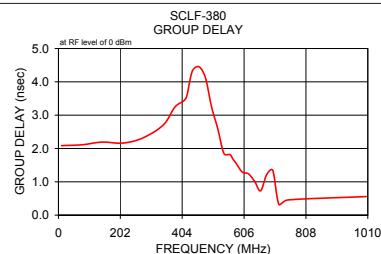
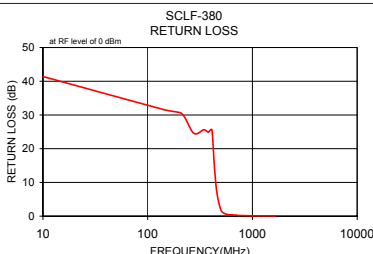


Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ		
10.00	0.02	0.10	10.00	2.09
142.50	0.13	0.10	77.50	2.11
210.00	0.20	0.10	142.50	2.19
275.00	0.29	0.10	210.00	2.16
342.50	0.44	0.10	275.00	2.32
380.00	0.67	0.10	342.50	2.71
410.00	0.74	0.10	380.00	3.24
430.00	1.03	0.20	410.00	3.44
440.00	1.34	0.20	420.00	3.61
460.00	2.74	0.50	430.00	4.08
500.00	8.54	0.70	440.00	4.37
540.00	15.86	0.70	460.00	4.45
560.00	19.27	0.70	480.00	4.12
570.00	20.89	0.70	500.00	3.25
580.00	22.44	0.70	520.00	2.60
600.00	25.63	0.70	540.00	1.85
640.00	31.77	0.90	560.00	1.82
680.00	37.56	1.00	570.00	1.68
700.00	40.46	1.10	580.00	1.56
720.00	43.62	1.50	600.00	1.30
750.00	49.16	2.20	620.00	1.24
1005.00	54.51	2.70	640.00	1.02
1137.50	57.05	4.50	660.00	0.73
1270.00	61.62	6.50	680.00	1.22
1402.50	63.80	6.10	700.00	1.34
1535.00	63.45	3.20	720.00	0.32
1600.00	65.10	3.10	750.00	0.46
1667.50	66.20	5.40	1005.00	0.56



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.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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SCLF-380
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SCLF-380+
SCLF-380



CASE STYLE: YY161

+RoHS Compliant

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