

Low Pass Filter

SCLF-135

DC to 135 MHz

Maximum Ratings

Operating Temperature	-40°C to 85°C
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Storage Temperature	-55°C to 100°C
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Power Input	0.5W max.
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Permanent damage may occur if any of these limits are exceeded

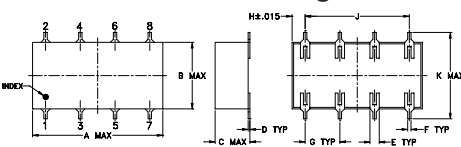
Pin Connections

INPUT 1

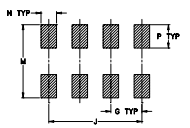
OUTPUT 8

GROUND 2.3.4.5.6.7

Outline Drawing



PCB Land Pattern



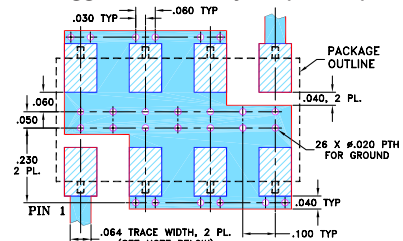
Suggested Layout,
Tolerance to be within ± 0.02

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

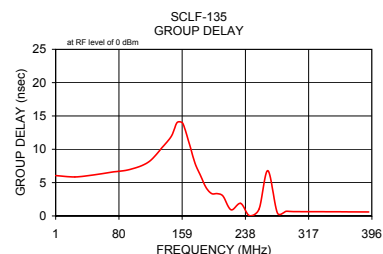
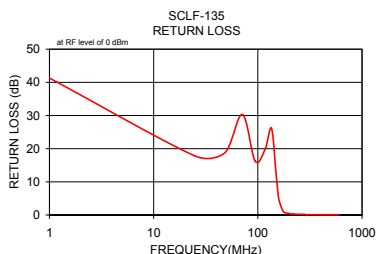
Demo Board MCL P/N: TB-187+
Suggested PCB Layout (PL-049)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030" $\pm$.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



CASE STYLE: YY161

PRICE: \$11.45 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.

Features

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

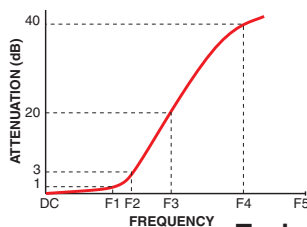
Applications

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

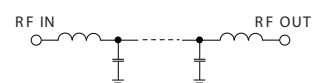
Electrical Specifications

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	41.30	1.00	6.05
25.00	0.18	0.10	17.80	25.00	5.85
48.00	0.22	0.10	18.70	48.00	6.15
71.00	0.25	0.10	30.30	71.00	6.57
94.00	0.45	0.10	16.30	94.00	6.98
117.00	0.57	0.10	19.70	117.00	8.09
135.00	0.87	0.10	26.20	135.00	10.40
149.00	1.42	0.10	13.10	145.00	11.86
155.00	2.54	0.20	7.40	149.00	12.96
160.00	4.29	0.40	4.40	152.00	13.89
175.00	12.53	0.70	1.10	155.00	14.12
189.00	20.35	0.80	0.60	160.00	13.84
196.00	23.89	0.80	0.50	168.00	10.81
203.00	27.23	0.80	0.40	175.00	7.92
210.00	30.34	0.90	0.30	182.00	6.03
220.00	34.51	0.90	0.30	189.00	4.24
243.00	43.15	1.10	0.20	196.00	3.35
266.00	50.60	1.10	0.20	203.00	3.35
278.00	54.30	2.20	0.20	210.00	2.98
289.00	58.28	3.60	0.10	220.00	0.92
300.00	60.35	2.80	0.10	232.00	1.88
350.00	69.91	4.30	0.10	243.00	0.04
392.00	72.49	2.50	0.10	255.00	1.02
434.00	69.22	3.40	0.10	266.00	6.80
475.00	67.52	1.50	0.10	278.00	0.42
517.00	67.56	2.10	0.10	289.00	0.70
538.00	65.57	1.80	0.10	300.00	0.65
559.00	67.78	3.00	0.10	350.00	0.63
580.00	65.80	2.40	0.10	371.00	0.61
600.00	65.48	2.60	0.10	392.00	0.60

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms_iso.

For detailed performance specs
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