Surface Mount

Low Pass Filter

SCLF-65+
SCLF-65

50Ω DC to 65 MHz

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.

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF 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

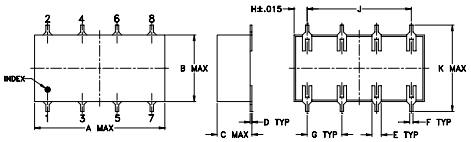
Features

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

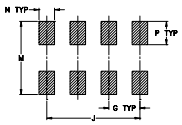
Applications

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

Outline Drawing



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

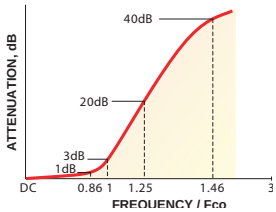
A	B	C	D	E	F	G
0.75	0.38	0.28	0.01	0.05	0.02	0.2
19.05	9.65	7.11	0.25	1.27	0.51	5.08

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

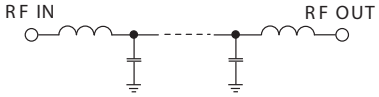
Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
				Pass band Typ.	Stop band Typ.
(loss <1 dB)	(loss 3 dB)	(loss > 20 dB)	(loss > 40 dB)		
DC-65	71	86-96	96-510	1.3	18

typical frequency response



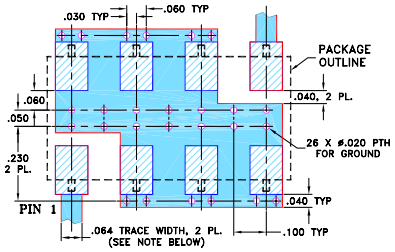
Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)
1.00	0.03	0.00	44.37
20.00	0.10	0.00	23.19
30.00	0.12	0.01	28.62
40.00	0.17	0.00	31.38
60.00	0.45	0.01	25.03
65.00	0.65	0.02	28.17
67.00	0.88	0.05	18.31
71.00	2.86	0.26	5.83
75.00	8.55	0.56	1.65
82.00	21.71	0.71	0.44
86.00	29.33	0.78	0.32
96.00	52.71	2.06	0.21
140.00	62.52	1.00	0.16
180.00	58.61	0.65	0.15
300.00	53.64	0.36	0.20
400.00	53.53	0.32	0.21
510.00	52.19	0.80	0.24
600.00	22.14	0.44	0.76
800.00	49.13	0.65	0.28
1,000.00	3.96	0.08	8.74

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

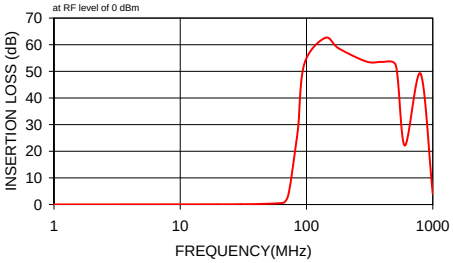


NOTES:
1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

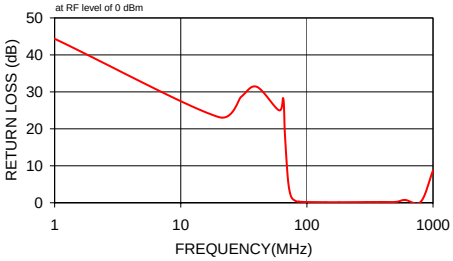
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

SCLF-65
INSERTION LOSS



SCLF-65
RETURN LOSS



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.jsp.

REV. D
M111708
SCLF-65
070716