

Surface Mount Low Pass Filter

50Ω DC to 116 MHz

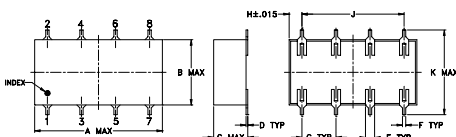
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

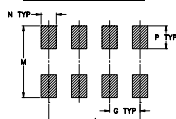
Pin Connections

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

Outline Drawing



PCB Land Pattern

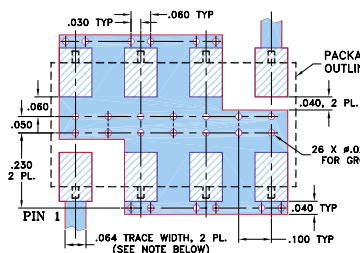


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.75	.38	.20	.010	.050	.020	.200
19.05	9.65	5.08	0.25	1.27	0.51	5.08
H	J	K	M	N	P	wt
.075	.600	.450	.100	.150	.150	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.6

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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- 7-section elliptic function
- excellent rejection

Applications

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



CASE STYLE: YY101
PRICE: \$6.95 ea. QTY (1-9)

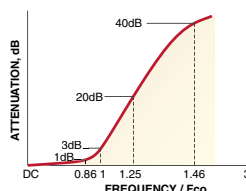
+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

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

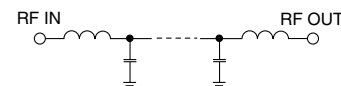
Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
(loss < 1 dB)	(loss 3 dB) Typ.	(loss > 20 dB) Min.	(loss > 40 dB) Min.	Pass band typ.	Stop band typ.
DC-116	142	182-220	220-825	1.3	18

typical frequency response

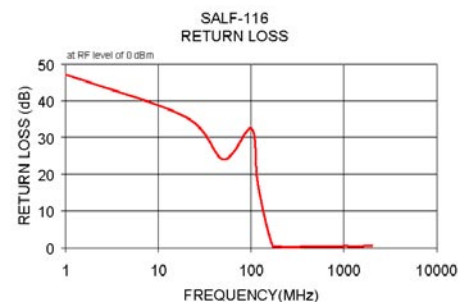
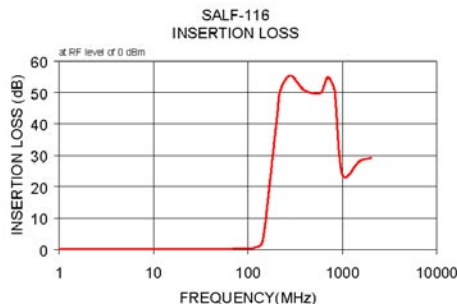


Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	$\bar{x}$	σ	
1.00	0.03	0.00	47.20
20.00	0.10	0.00	35.44
50.00	0.19	0.00	24.04
100.00	0.37	0.00	32.44
116.00	0.54	0.01	18.55
142.00	2.41	0.24	7.34
170.00	21.20	0.50	0.42
182.00	29.28	0.50	0.27
205.00	43.25	0.60	0.20
220.00	50.74	0.62	0.19
280.00	55.38	0.32	0.18
380.00	51.16	0.40	0.21
500.00	49.70	0.49	0.21
600.00	50.21	0.59	0.23
700.00	54.82	1.02	0.23
825.00	50.82	1.12	0.22
850.00	46.29	0.96	0.25
1000.00	23.73	2.39	0.39
1500.00	28.01	1.01	0.34
2000.00	29.12	1.29	0.55



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