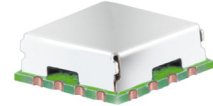


Dual Low Pass Filter

LPFD-7080+

50Ω Passband DC to 70 MHz & DC to 80 MHz



Maximum Ratings*

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max

* Ratings are for each of the two filters in the package.

Pin Connections

RF IN 1	2 (Filter 1)
RF OUT 1	14 (Filter 1)
RF IN 2	6 (Filter 2)
RF OUT 2	10 (Filter 2)
GROUND	1,3,4,5,7,8,9,11,12,13,15,16

Features

- High rejection
- Sharp Insertion Loss roll off
- Good VSWR, 1.2:1 typ. @ Passband
- Small size Dual Filter, 0.5" x 0.5"
- Aqueous washable

Applications

- Wireless communications
- Receivers / Transmitters

CASE STYLE: DV874
PRICE: \$21.95 ea. QTY (1-9)

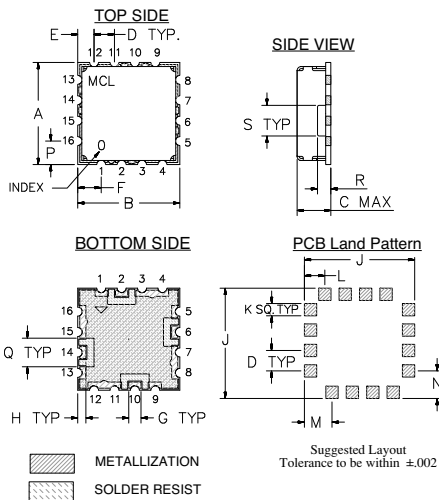
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

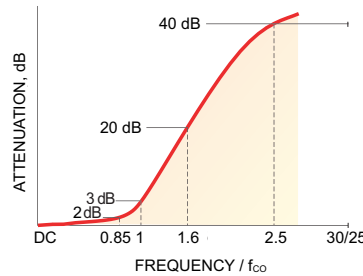
Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

STRUCTURE	PASSBAND (MHz) (Loss < 2dB)	f _{co} , MHz Nom.	STOPBAND (MHz)		CROSS OVER ISOLATION (dB) Typ.	VSWR (:1)	
			(Loss > 20dB)	(Loss > 40dB)		Passband Typ.	Stopband Typ.
Filter 1	DC - 70	80	135 - 200	200 - 2500	60	1.2	20
Filter 2	DC - 80	93	155 - 250	250 - 2500		1.2	20

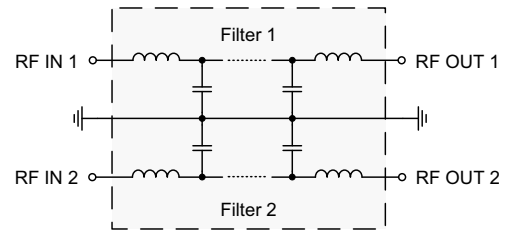
Outline Drawing



Typical Frequency Response (for each of filter)



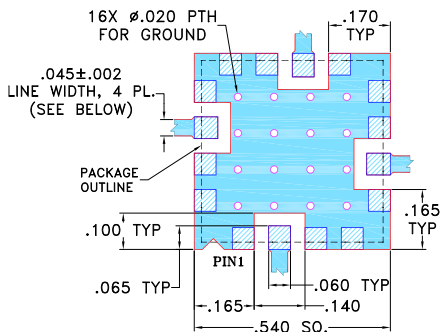
Functional Schematic



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.500	.500	.195	.100	.080	.115	.060	.040	.540
12.70	12.70	4.95	2.54	2.03	2.92	1.52	1.02	13.72
K	L	M	N	P	Q	R	S	wt.
.060	.100	.135	.135	.115	.140	.070	.150	grams
1.52	2.54	3.43	3.43	2.92	3.56	1.78	3.81	1.0

Demo Board MCL P/N: TB-163 Suggested PCB Layout (PL-040)



NOTES:

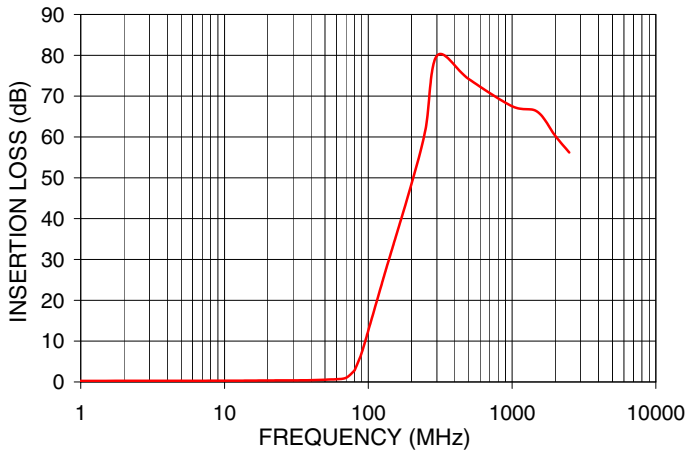
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS 0.025" ± 0.0025"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

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

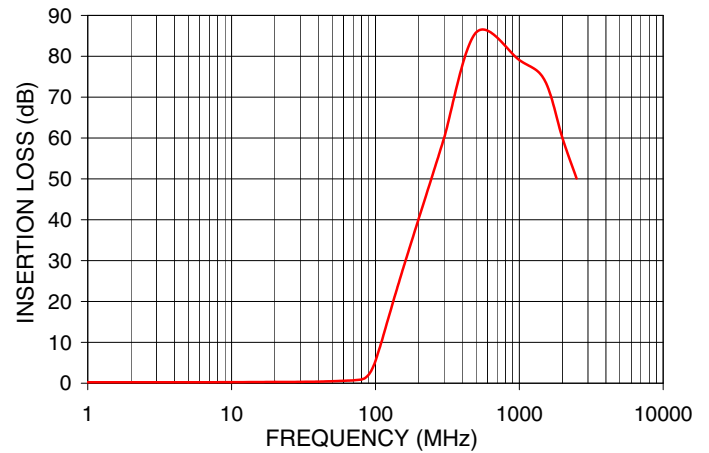
Typical Performance Data at 25°C

Freq. (MHz)	Filter 1			Filter 2			Cross Over Isolation (dB) between filters 1 & 2	Filter 1 Freq. (MHz)	Filter 2 Group Delay (nSec)	
	I. Loss (dB)	R. Loss (dB)	σ	I. Loss (dB)	R. Loss (dB)	σ			Group Delay	Group Delay
0.5	0.25	0.01	29.65	0.23	0.01	30.43	91.07	1.0	8.71	7.70
10.0	0.31	0.01	24.16	0.26	0.01	28.06	85.80	3.5	7.24	6.22
70.0	1.01	0.03	16.31	0.70	0.01	23.57	62.72	5.0	7.26	6.21
80.0	2.77	0.18	5.81	0.93	0.02	20.26	60.18	10.0	7.16	6.16
93.0	8.78	0.36	1.59	2.99	0.15	5.76	61.51	15.0	7.22	6.20
95.0	9.87	0.37	1.36	3.63	0.17	4.73	62.07	20.0	7.29	6.24
100.0	12.58	0.37	0.99	5.58	0.21	2.94	63.67	25.0	7.39	6.31
135.0	28.39	0.32	0.39	20.92	0.20	0.53	71.02	30.0	7.54	6.39
140.0	30.25	0.32	0.36	22.79	0.19	0.48	71.15	35.0	7.72	6.51
155.0	35.43	0.30	0.29	27.92	0.17	0.36	71.62	40.0	7.94	6.63
200.0	48.59	0.27	0.20	40.20	0.15	0.22	70.58	45.0	8.20	6.78
250.0	61.85	0.26	0.17	50.46	0.37	0.18	69.69	50.0	8.51	6.93
300.0	79.88	0.69	0.14	58.56	0.82	0.13	68.75	55.0	8.94	7.13
500.0	74.18	2.26	0.14	80.02	3.37	0.09	66.98	60.0	9.62	7.36
1000.0	67.53	0.49	0.21	78.51	0.58	0.16	67.67	66.0	10.89	7.81
1500.0	66.18	2.87	0.26	71.46	1.54	0.23	50.65	70.0	12.01	8.28
2000.0	60.25	4.58	0.27	57.38	1.46	0.26	43.79	75.0	13.20	9.10
2500.0	56.20	7.32	0.31	47.80	1.38	0.29	39.95	80.0	13.27	10.14

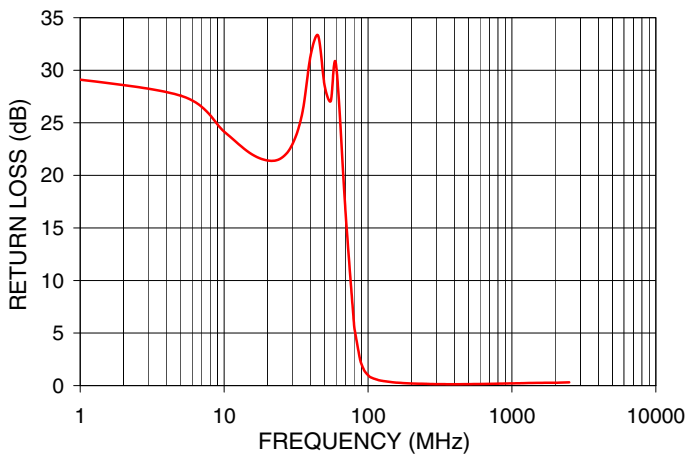
LOW PASS FILTER 1
INSERTION LOSS



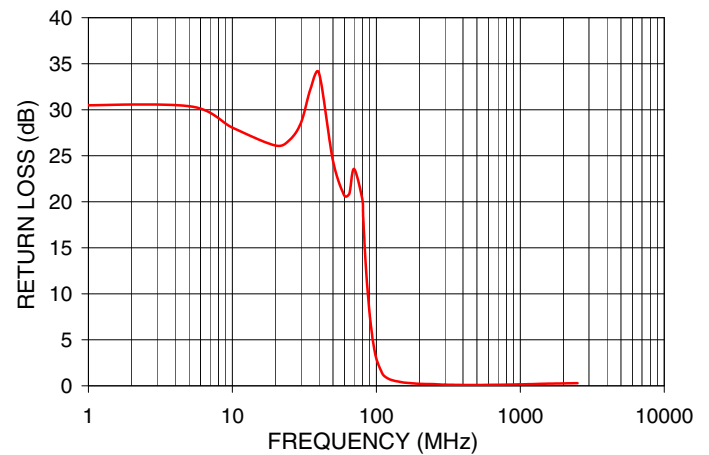
LOW PASS FILTER 2
INSERTION LOSS



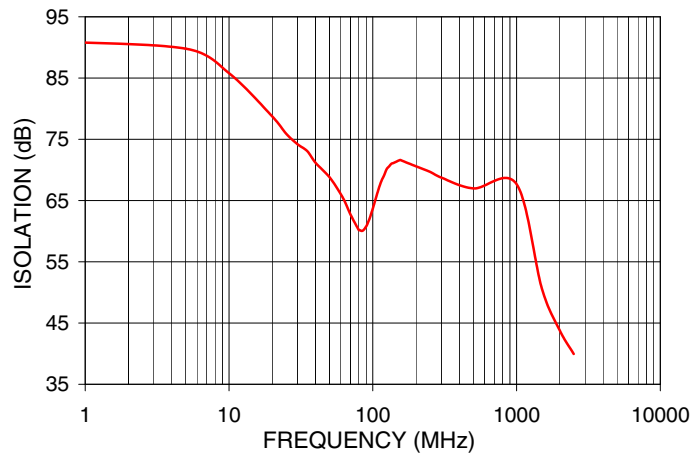
LOW PASS FILTER 1
RETURN LOSS



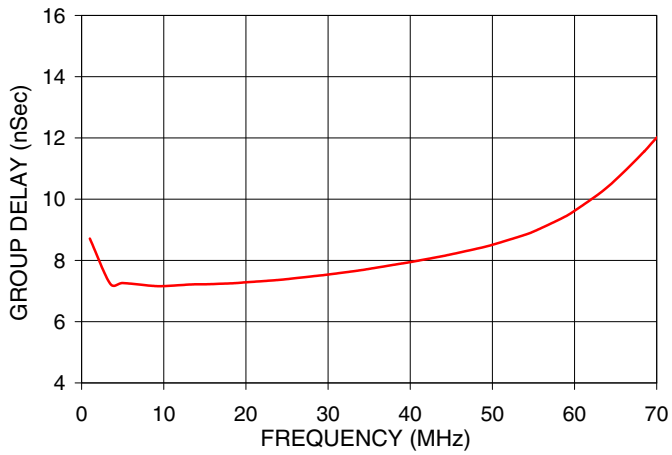
LOW PASS FILTER 2
RETURN LOSS



CROSS OVER ISOLATION
BETWEEN FILTERS 1 & 2



LOW PASS FILTER 1
GROUP DELAY



LOW PASS FILTER 2
GROUP DELAY

