

## Features

- High rejection, 36 dB typical
- Sharp insertion loss roll-off
- Shielded case
- Aqueous washable

## Applications

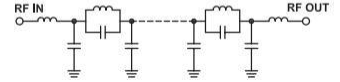
- Defence communications
- Transmitters / receivers
- Harmonic rejection

## HT-LPF-B50+

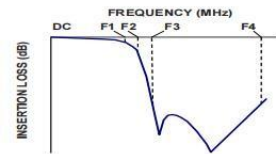


50Ω DC to 50 MHz

### Functional Schematic



### Typical Frequency Response



Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-50	-	0.8	2	dB
	Freq. Cut-Off	F2	55	-	3.5	-	dB
	VSWR	DC-F1	DC-50	-	1.2	1.5	1
Stop Band	Rejection Loss VSWR	F3-F4	65-3300	20	36	-	dB
		F3-F4	65-3300	-	18	-	1

### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1.0	0.09	1.03	1.00	15.67
14.0	0.18	1.09	5.00	15.67
30.0	0.28	1.10	10.00	15.83
40.0	0.41	1.07	13.00	16.09
50.0	0.73	1.10	15.00	16.28
54.0	1.40	1.50	18.00	16.74
55.0	2.21	2.14	20.00	17.09
56.0	3.95	3.57	23.00	17.61
57.0	6.86	6.30	25.00	18.06
59.0	14.69	14.03	28.00	18.83
62.0	27.08	21.20	30.00	19.53
65.0	39.46	24.83	33.00	20.75
71.0	67.01	30.49	35.00	21.75
75.0	70.91	33.42	38.00	23.51
100.0	68.31	54.29	40.00	24.95
500.0	73.95	217.15	43.00	27.73
1500.0	66.89	69.49	45.00	30.21
2000.0	68.96	49.64	47.00	33.54
3000.0	60.90	41.37	48.00	35.73
3300.0	45.95	31.60	50.00	41.43

### Maximum Ratings

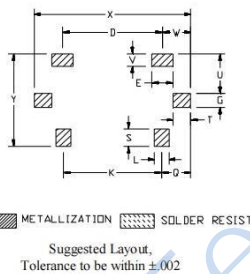
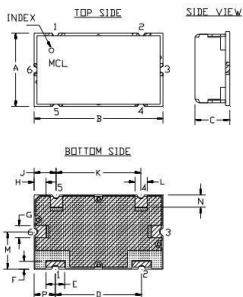
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	1 W max.
Permanent damage may occur if any of these limits are exceeded.	

### Pin Connections

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

### Outline Drawing

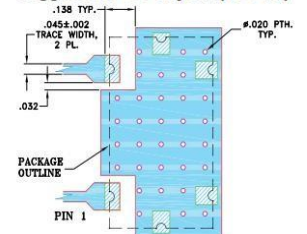
### PCB Land Pattern



### Outline Dimensions: Unit ( mm )

A	11.99	B	20.98	C	5.59
D	14.00	E	3.00	F	1.19
G	1.98	H	1.93	J	3.61
K	13.79	L	1.98	M	5.99
N	2.01	P	3.51	Q	4.11
S	2.49	T	2.44	U	5.51
V	1.70	W	3.99	X	22.00
WT		6.0	Y	13.00	

### Demo Board MCL P/N: TB-400+ Suggested PCB Layout (PL-247)



- NOTES:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025±.002". COPPER: 1/2 OZ. EACH SIDE.
  - FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - 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 SOLDERMASK

# Low Pass Filter

