

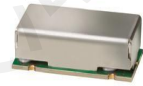
Features

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

Applications

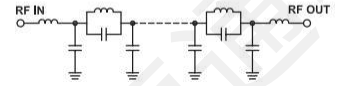
- Defence communications
- Transmitters / receivers
- Harmonic rejection

FLF042

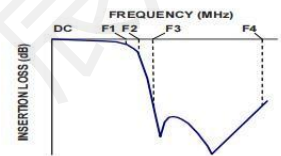


50Ω DC to 375 MHz

Functional Schematic



Typical Frequency Response



Electrical Specifications at 25°C

Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-375	-	1	2	dB
	Freq. Cut-Off	F2	395	-	3	-	dB
	VSWR	DC-F1	DC-375	-	1.3	1.6	1
Stop Band	Rejection Loss	F3-F4	440-4500	20	34	-	dB
	VSWR	F3-F4	440-4500	-	23	-	1

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	0.02	1.01	1	2.19
5	0.04	1.01	5	2.23
50	0.11	1.04	10	2.18
160	0.26	1.19	50	2.20
250	0.34	1.12	75	2.22
300	0.43	1.11	100	2.28
350	0.63	1.02	150	2.39
375	0.98	1.28	200	2.61
394	1.89	1.62	225	2.79
400	3.50	2.81	250	3.03
405	6.14	5.10	275	3.35
412	11.42	10.50	300	3.78
425	22.72	19.54	310	4.00
440	36.24	25.19	320	4.26
650	53.46	59.91	330	4.59
1000	67.13	82.73	340	5.04
2000	62.97	64.35	350	5.62
3000	47.46	51.10	360	6.36
4000	42.88	40.41	370	7.32
4500	37.74	40.41	375	8.00

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	1 W max.

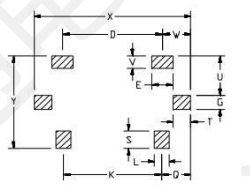
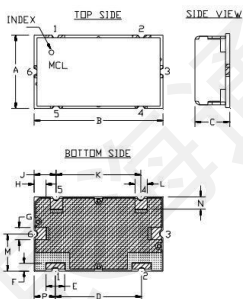
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

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

Outline Drawing

PCB Land Pattern

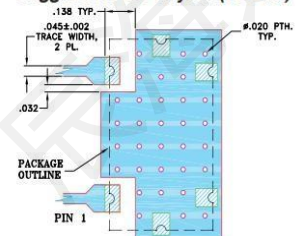


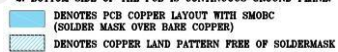
Suggested Layout,
Tolerance to be within ±.002

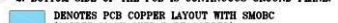
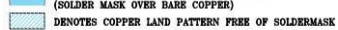
Outline Dimensions: Unit (mm)

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

