

Features

- Narrow band flat group delay
- Good VSWR, 1.3:1 Typical
- High Rejection, 40 dB
- Shielded case
- Aqueous washable

Applications

- Harmonic Rejection
- Transmitters / Receivers
- Military

HT-SXBP-176+



50Ω 175 to 177 MHz

Electrical Specifications at 25°C

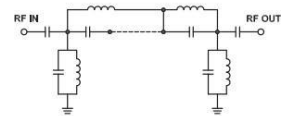
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	176	—	MHz
	Insertion Loss	F1-F2	175-177	—	3.3	4.8 dB
	VSWR	F1-F2	175-177	—	1.3	1.5 :1
Stop Band, Lower	Insertion Loss	DC-F3	DC-155	20	30	dB
	VSWR	DC-F3	DC-155	—	15	— :1
Stop Band, Upper	Insertion Loss	F4-F5	199-1000	20	31	dB
	VSWR	F4-F5	199-1000	—	11	— :1

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.25W max.

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

Functional Schematic



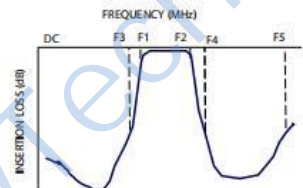
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1.0	93.62	1737.18	175.00	43.54
143.0	51.62	96.51	175.10	44.08
155.0	32.29	36.97	175.20	43.90
160.0	22.86	19.98	175.30	43.69
164.0	14.07	8.86	175.40	43.71
167.0	7.57	3.49	175.60	43.60
175.0	3.21	1.21	175.70	43.54
176.0	3.21	1.22	175.80	42.95
177.0	3.24	1.25	175.90	43.43
185.0	6.30	3.52	176.00	43.35
190.0	12.52	9.53	176.10	42.97
199.0	31.10	32.79	176.20	43.18
200.0	33.03	36.20	176.30	43.28
205.0	41.84	51.10	176.40	43.21
209.0	48.28	62.05	176.50	43.00
300.0	62.65	217.15	176.60	43.24
500.0	65.17	82.73	176.70	43.19
750.0	56.76	69.49	176.80	43.22
800.0	55.56	78.97	176.90	42.84
1000.0	53.36	56.04	177.00	42.96

Pad Connections

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

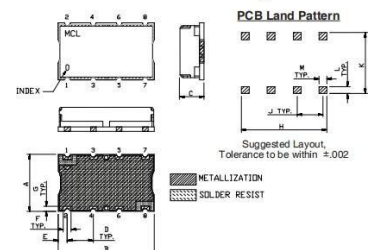
Typical Frequency Response



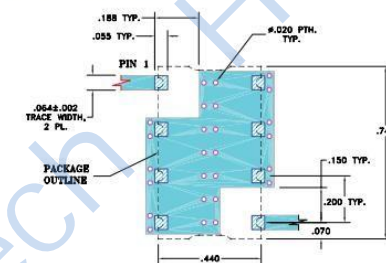
Outline Dimensions: Unit (mm)

A	11.18	D	5.08	G	1.02
B	18.80	E	1.78	H	16.76
C	6.86	F	1.52	J	5.08
L	1.40	M	1.52	K	11.94
wt	3.0				

Outline Drawing



Demo Board MCL P/N: TB-368 Suggested PCB Layout (PL-230)



NOTE:

1. 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.
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