

## HT-SXBP-1940+



50Ω 1710 to 2170 MHz

### Features

- Fast roll-off on the upper side band
- Good matching in the pass band
- Miniature shielded package

### Applications

- Defense systems
- Cable TV relay
- DECT, GSM and IMT
- Mobile satellite
- Private and public land mobile
- PCS Broadband

### Electrical Specifications at 25°C

Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	1940	-	MHz
	Insertion Loss	F1-F2	1710-2170	-	1	2.0	dB
	VSWR	F1-F2	1710-2170	-	1.3	1.78	1
Stop Band, Lower	Insertion Loss	DC-F3	DC-145	20	30	-	dB
	VSWR	DC-F3	DC-145	-	20	-	1
Stop Band, Upper	Insertion Loss	F4-F5	2900-4700	20	28	-	dB
	VSWR	F4-F5	2900-4700	-	10	-	1

### Maximum Ratings

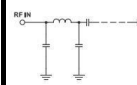
Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

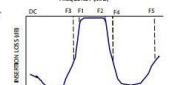
RF Power Input\* 8W max.

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

### Functional Schematic



### Typical Frequency Response



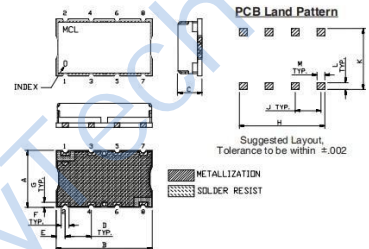
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	73.65	1737.18	1710	1.13
5	59.44	1737.18	1750	1.10
55	38.58	1737.18	1780	1.10
145	30.12	868.59	1800	1.10
430	20.39	157.93	1820	1.10
1030	10.36	25.56	1840	1.09
1280	5.63	9.90	1860	1.10
1400	3.18	5.09	1880	1.11
1500	1.50	2.71	1900	1.12
1580	0.71	1.66	1920	1.14
1710	0.44	1.11	1940	1.15
1940	0.58	1.36	1960	1.17
2170	0.65	1.08	1980	1.19
2290	1.57	1.99	2000	1.21
2335	3.15	3.52	2020	1.24
2385	6.15	7.08	2040	1.26
2500	14.35	21.73	2060	1.28
2900	34.71	41.37	2100	1.34
3400	40.38	42.38	2150	1.44
4700	44.89	41.37	2170	1.49

### Pad Connections

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

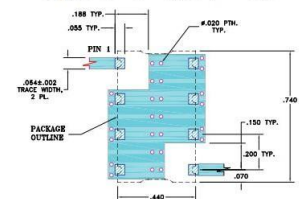
### Outline Drawing



### 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				

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



- NOTE:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .005" (128µm) 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 SMDSC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

