

Features

- Linear Phase, up to ± 6 deg typical @ $F_c \pm 15$ MHz
- Good VSWR, 1.3:1 typical in Passband
- High rejection
- Shielded case
- Aqueous washable

Applications

- Industrial Microwave and RF
- Receivers / Transmitters
- Harmonic rejection

HT-SXBP-425+



50Ω 410 to 440 MHz

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

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBAND (MHz)				VSWR		
		(Loss > 20dB)		(Loss > 40dB)		Passband		Stopband
F _c	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
425	410-440	385	470	360	510-2500	1.3	1.85	20

Maximum Ratings

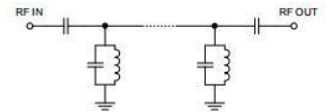
Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

RF Power Input* 0.5W max.

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

Functional Schematic



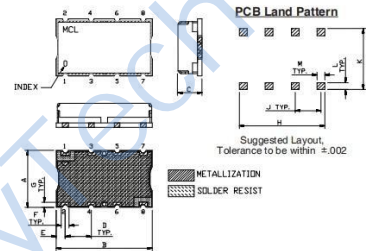
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Deviation from Linear Phase (deg.)
	α	σ			
0.5	81.76	3.40	0.17	410	5.24
100.0	68.09	3.05	0.28	412	1.77
360.0	47.06	0.36	0.27	414	-0.11
385.0	27.82	0.65	0.82	416	-0.13
395.0	16.90	1.00	1.90	418	-1.85
402.0	8.63	1.16	4.96	420	-1.89
406.0	5.40	0.97	9.68	422	-1.57
410.0	3.68	0.11	16.84	424	-1.01
425.0	2.91	0.07	16.83	425	-0.69
440.0	3.65	0.13	16.55	427	-0.05
445.0	5.32	0.42	12.75	429	0.53
450.0	9.56	0.74	4.75	430	0.77
460.0	19.96	0.67	1.39	432	1.11
470.0	28.48	0.54	0.78	434	1.22
510.0	49.71	0.45	0.29	436	0.94
1000.0	83.27	5.77	0.24	438	0.04
2000.0	54.71	2.24	0.49	439	-0.73
2500.0	50.52	1.55	0.54	440	-1.79

Pad Connections

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

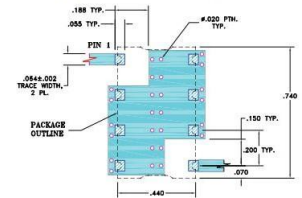
Outline Drawing



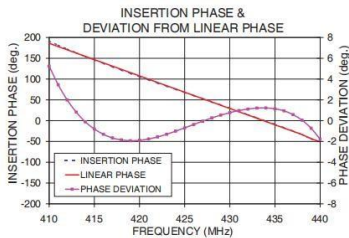
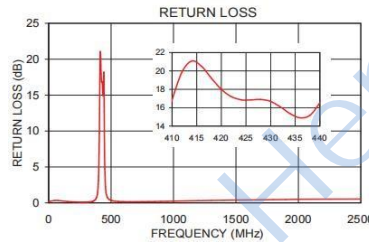
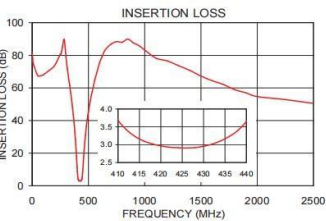
Outline Dimensions: Unit (mm)

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: 0.0075" (0.001875" 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



Typical Frequency Response

