

Bandpass Filter

SXBP-1430-75+

75Ω 950 to 2150 MHz

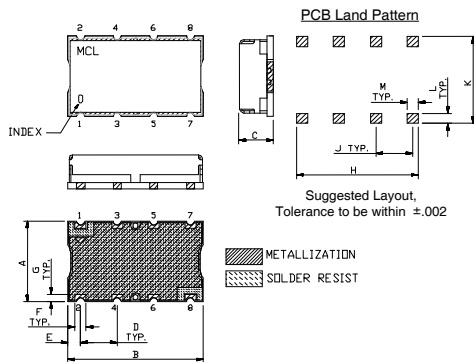
Maximum Ratings

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.	

Pin Connections

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

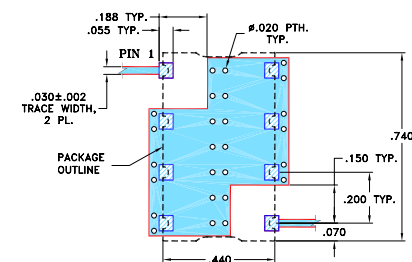
Outline Drawing



Outline Dimensions (inch/mm)

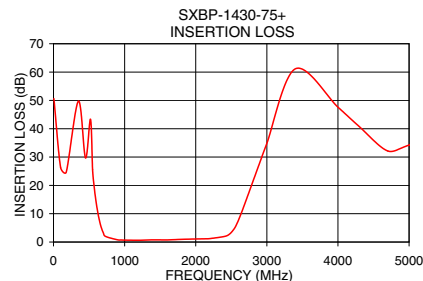
A	B	C	D	E	F
.44	.74	.19	.200	.07	.060
11.18	18.80	4.83	5.08	1.78	1.52
G	H	J	K	L	M
.040	.660	.200	.470	.055	.060
1.02	16.76	5.08	11.94	1.40	1.52
					wt. grams
					3.0

Demo Board MCL P/N: TB-683+ Suggested PCB Layout (PL-281)



- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030"±.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 SOLDER MASK



Features

- wideband, 950 to 2150 MHz
- flat group delay @ passband, 0.6 nsec typ.
- good VSWR, 1.3:1 typ @ passband
- aqueous washable

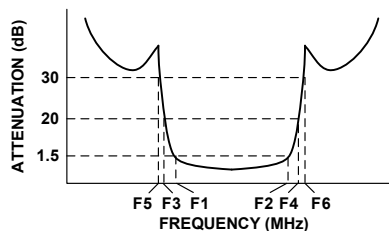
Applications

- L-band
- receivers/ transmitters
- wireless communication system

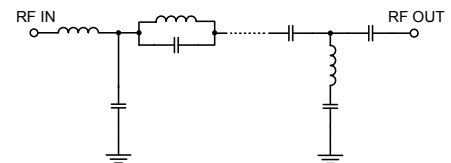
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 1.5dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss 30dB Typ.		Passband		Stopband
Fc	F1 - F2	F3	F4	F5	F6	Typ.	Max.	Typ.
1430	950 - 2150	540	2950	530	3000 - 5000	1.3	1.9	20

Typical Frequency Response

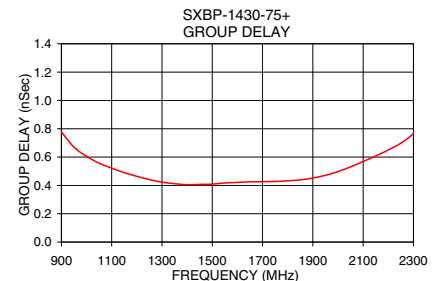
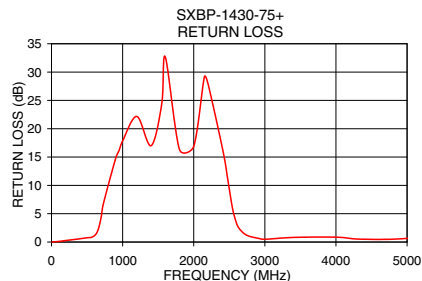


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	σ			
5.0	50.63	0.39	0.01	900.0	0.78
530.0	35.18	2.03	0.77	950.0	0.67
540.0	29.53	1.19	0.77	1000.0	0.61
580.0	17.63	0.45	0.94	1100.0	0.52
630.0	9.50	0.26	1.47	1200.0	0.46
680.0	4.50	0.14	3.30	1300.0	0.42
725.0	2.17	0.06	6.37	1400.0	0.41
780.0	1.15	0.04	10.96	1430.0	0.41
950.0	0.56	0.02	20.73	1450.0	0.93
1430.0	0.60	0.03	18.82	1500.0	0.94
2150.0	0.97	0.02	24.15	1600.0	0.87
2425.0	1.65	0.06	20.56	1700.0	0.92
2500.0	2.50	0.28	17.51	1800.0	0.97
2575.0	6.28	0.86	5.39	1900.0	0.98
2650.0	13.27	1.06	2.06	2000.0	1.00
2800.0	29.07	1.38	1.11	2100.0	1.12
2850.0	36.43	1.93	1.05	2150.0	1.10
5000.0	38.05	1.34	0.63	2200.0	1.09



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