

Bandpass Filter

BPF-B140N+

50Ω 137 to 143 MHz

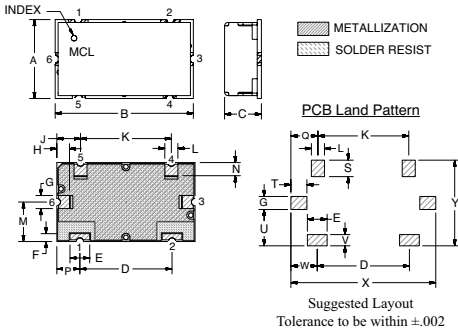
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W Max.

Pin Connections

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

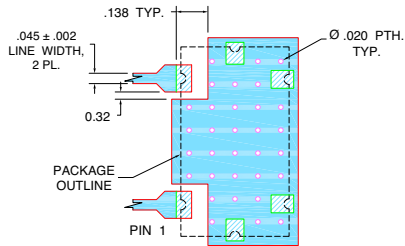
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M
.472	.826	.220	.551	.118	.047	.078	.076	.142	.543	.078	.236
11.99	20.98	5.59	14.00	3.00	1.19	1.98	1.92	3.59	13.79	1.98	5.99
N	P	Q	S	T	U	V	W	X	Y	wt	
.079	.138	.162	.098	.096	.217	.067	.157	.866	.512	grams	
1.99	3.49	4.11	2.49	2.44	5.51	1.70	3.99	22.00	13.00	6	

Demo Board MCL P/N: TB-400+ Suggested PCB Layout (PL-247)



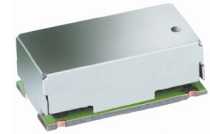
- NOTES:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS. .025"±.002" COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- Excellent rejection
- Flat Group Delay @ Passband
- Good VSWR, 1.3:1 typ. @ Passband

Applications

- Receivers / Transmitters
- PMR / PAMR
- Base station



CASE STYLE: HZ1198
PRICE: \$15.95 ea. QTY (1-9)

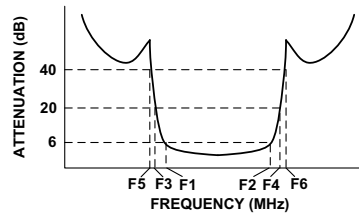
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

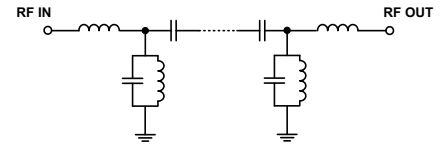
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 6dB) F1 - F2	STOPBANDS (MHz)				VSWR (:1)	
		Loss > 20dB F3	Loss > 40dB F4	F5	F6	Passband Max.	Stopband Typ.
140	137 - 143	126	154	119	165 - 1500	1.6	30

Typical Frequency Response

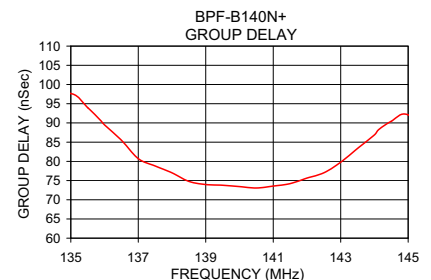
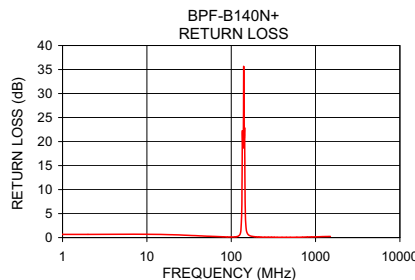
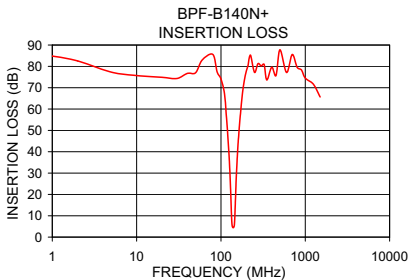


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB) \bar{x}	σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
1.0	84.10	3.17	0.67	135.0	96.41
119.0	51.15	0.38	0.25	136.0	90.34
126.0	35.29	0.32	0.57	137.0	83.07
130.0	22.83	0.33	1.41	137.5	79.66
133.0	11.59	0.34	4.96	138.0	78.33
134.0	8.44	0.29	8.99	138.5	76.61
137.0	4.71	0.08	19.03	139.0	75.42
140.0	4.32	0.07	27.57	139.5	74.79
143.0	4.83	0.08	20.72	140.0	74.28
146.0	9.03	0.34	8.53	140.5	74.18
148.0	15.72	0.39	3.44	141.0	74.84
154.0	32.74	0.33	1.01	141.5	75.90
165.0	51.19	0.44	0.43	142.0	76.78
200.0	76.29	2.43	0.15	142.5	78.59
400.0	80.32	3.07	0.07	143.0	81.75
800.0	81.57	3.51	0.13	143.5	85.13
1000.0	77.76	4.06	0.16	144.0	88.85
1500.0	66.03	1.78	0.24	145.0	92.31



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS

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