

Bandpass Filter

Features

- Excellent rejection
- Flat group delay @ passband
- Good VSWR, 1.3:1 typ. @ passband

Applications

- Receivers/transmitters
- PMR / PAMR
- Base station

HT-BPF-B140N+



50Ω 137 to 143 MHz

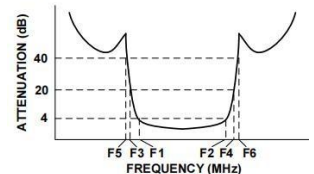
Bandpass Filter Electrical Specifications($T_{AMB}=25^{\circ}C$)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB)	STOPBAND (MHz)				VSWR(:1)	
		(Loss > 20dB)		(Loss > 40dB)		Passband Max.	Stopband Typ.
Fc	F1 - F2	F3	F4	F5	F6		
140	137-143	126	154	119	165-1500	1.6	30

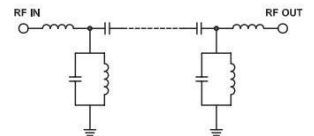
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ			
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	79.61
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

Typical Frequency Response



Functional Schematic



Pin Connections

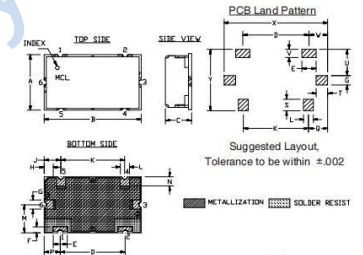
INPUT	1
OUTPUT	2
GROUND	3, 4, 5, 6

Maximum Ratings

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

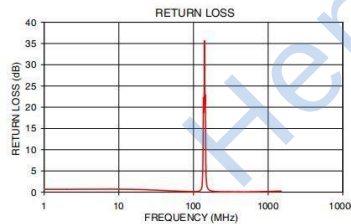
*Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



Outline Dimensions: Unit (mm)

A	11.99	B	20.98	C	5.59
D	14	E	3	F	1.19
G	1.98	H	1.92	J	3.61
K	13.79	L	1.98	M	5.99
N	2.01	P	3.51	Q	4.11
S	2.49	T	2.44	U	5.51
V	1.70	W	3.99	X	22
WT		6.0		Y	13



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

