HenryTech

Bandpass Filter

HT-RBP-140+

50Ω 130 to 150 MHz

Features

- good VSWR, 1.3:1 typ @ passband
- high rejection•small size 8.89" X 8.89"
- shielded case
- aqueous washable

Applications

- base station
- harmonic rejection
- transmitters/receivers

Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	Fc			140		MHz
	Insertion Loss	F1-F2	130-150		2.6	3.5	dB
	VSWR	F1-F2	130-150		1.35	1.7	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-100	20	29		dB
	VSWR	DC-F3	DC-100		25		:1
Stop Band, Upper	Insertion Loss	F4-F5	178-3000	20	27		dB
	VSWR	F4-F5	178-3000		13		:1
Maximum Deviation from Linear Phase		Fc ±15MHz	125-155		±9	±14	deg

Maximum Ratings

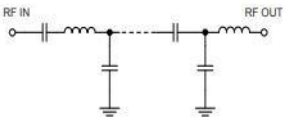
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.3W at 25°C

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

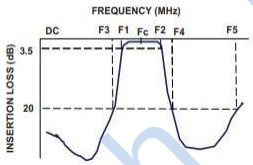
Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	81.53	7360.92
60	44.27	579.06
100	29.51	31.03
109	15.66	10.56
114	8.73	5.20
120	3.83	1.44
125	2.66	1.16
130	2.31	1.22
140	2.23	1.34
150	2.57	1.11
161	5.47	2.56
166	10.71	6.05
178	28.39	22.29
180	31.55	25.19
182	24.88	28.03
190	52.41	40.41
200	46.17	57.91
600	85.00	289.53
2200	65.48	31.60
3000	55.39	26.33

Functional Schematic

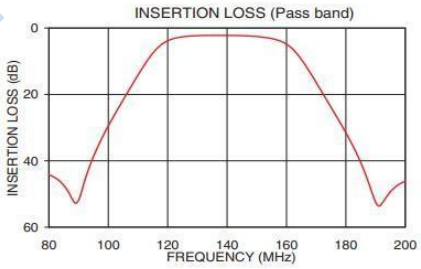


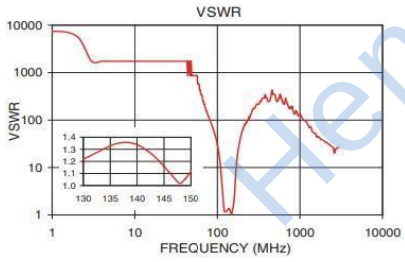
Typical Frequency Response



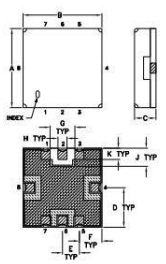
Pad Connections

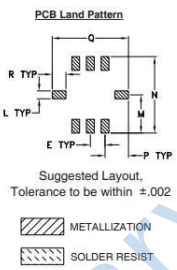
RF IN	2
RF OUT	6
GROUND	1, 3, 4, 5, 7, 8





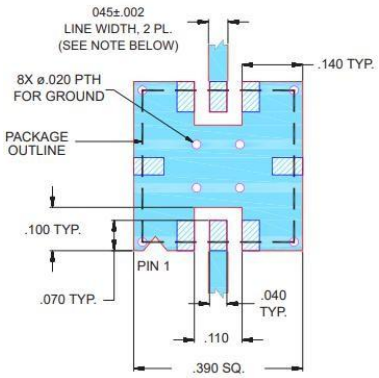
Outline Drawing





Outline Dimensions: Unit (mm)					
A	8.89	B	8.89	C	2.54
D	4.45	E	1.91	F	2.54
G	2.79	H	1.02	J	2.03
K	1.27	L	1.02	M	4.95
N	9.91	P	3.05	Q	9.91
R	1.78	wt	0.25		

Demo Board MCL P/N: TB-332
Suggested PCB Layout (PL-176)



NOTES:
1. 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.
2. 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

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