

Features

- High power handling, 7W
- Small size
- Temperature stable
- Excellent rejection

Applications

- Military radio
- Cellular
- GSM
- ISM

HT-SYBP-1420+



50Ω 1250 to 1560 MHz

Electrical Specifications at 25°C

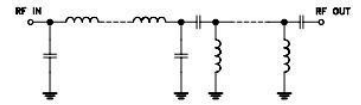
Parameter		F#	Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	1420	-	MHz
	Insertion Loss	F1-F2	1250-1560	-	2.2	2.9	dB
	VSWR	F1-F2	1250-1560	-	1.7	2.2	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-910	20	24	-	dB
	VSWR	DC-F3	DC-910	-	20	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	2000-5000	20	25	-	dB
	VSWR	F4-F5	2000-5000	-	19	-	:1

Typical Performance Data

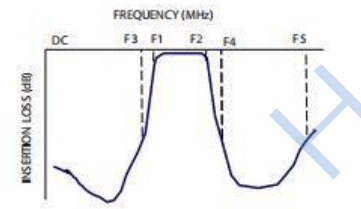
(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	92.10	7043.23
500	48.62	20.02
700	42.08	16.67
910	25.20	13.11
1000	15.22	9.33
1250	2.27	1.72
1300	2.11	1.65
1400	1.91	1.44
1560	2.16	1.68
1700	4.94	2.96
1800	10.68	6.28
1900	20.03	9.67
2000	33.70	11.49
3000	36.90	16.14
4000	35.26	28.97
5000	30.60	21.62

Functional Schematic



Typical Frequency Response



Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

*Passband rating, derate linearly to 3W at 85°C ambient
Permanent damage may occur if any of these limits are exceeded.

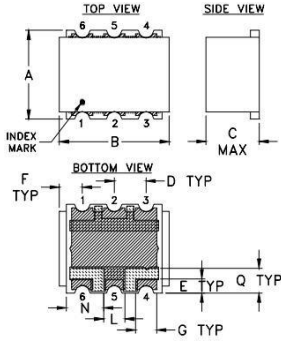
Pin Connections

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

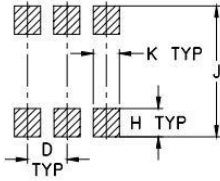


Bandpass Filter

Outline Drawing



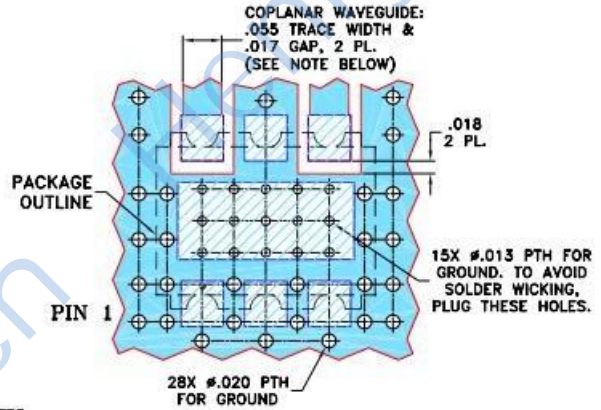
PC B L and Patter n



Suggested Layout,
Tolerance to be within $\pm .002$

METALLIZATION
 SOLDER RESIST

Demo Board MCL P/N: TB-517+
Suggested PCB Layout (PL-308)



Outline Dimensions: Unit (mm)					
A	6.35	B	7.87	C	3.81
D	2.29	E	1.02	F	1.65
G	1.52	H	1.65	J	7.62
K	1.52	L	1.52	N	2.67
Q	1.78	wt			0.50

NOTES:

- COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS $.030 \pm .002$; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP 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