

HT-HFCN-1000+

- Low cost
- Small size
- 7 sections
- Temperature stable
- LTCC construction
- Excellent power handling, 7W
- Hermetically sealed

- Sub-harmonic rejection
- Transmitters/receivers
- Lab use

RF IN	1
RF OUT	3
GROUND	2,4

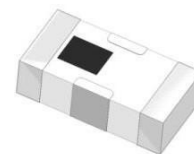
PCB Land Pattern

Diagram illustrating the dimensions and features of a PCB Land Pattern:

- $\varnothing N$: Diameter of the plated thru hole.
- PLATED THRU HOLE ON GROUND PAD: Label for the plated thru hole.
- J TYP: Dimension for the distance between the plated thru hole and the ground pad.
- P TYP MAX: Dimension for the maximum thickness of the ground pad.
- H: Dimension for the distance between the ground pads.
- G: Dimension for the distance between the ground pads.
- L: Dimension for the length of the ground pad.
- M: Dimension for the width of the ground pad.
- K: Dimension for the total width of the ground pad.

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

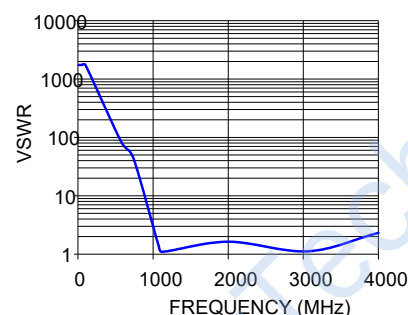
A	B	C	D	E	F	G	
.126	.063	.037	.020	.032	.009	.169	
3.20	1.60	0.94	0.51	0.81	0.23	4.29	
H	J	K	L	M	N	P	wt
.087	.024	.122	.024	.087	.012	.071	grams
2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020



50 Ω
1080MHz to 4000MHz

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Stop Band	Rejection Loss	DC-F1	DC-570	40	—	—
		F1-F2	DC-740	20	—	—
	Freq. Cut-Off	F3	1000	—	3.0	—
	VSWR	DC-F2	DC-740	—	20	—
Pass Band	Insertion Loss	F4-F7	1080-4000	—	—	2.0
		F5-F6	1150-3700	—	—	1.4
	VSWR	F4-F7	1080-4000	—	1.5	—

Graph of Insertion Loss (dB) vs Frequency (MHz) for the 1000 MHz bandpass filter. The loss is high (around 90 dB) at low frequencies, drops sharply between 500 MHz and 1000 MHz, and remains low (below 5 dB) for frequencies above 1000 MHz.



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" $\pm$.0015".
COPPER: 1/2 OZ. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH & GAP 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

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

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