

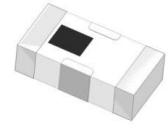
Features

- excellent power handling
- Small size
- 7 sections
- temperature stable
- LTCC construction with great moisture resistance, corrosion resistance, and high reliability

Applications

- sub-harmonic rejection
- transmitters/receivers
- base station of mobile communication and lab use

HT-HFCN-440+



50 Ω 500 to 2500 MHz

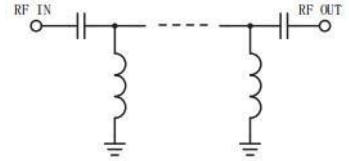
Electrical Specifications (T_{AMB}= 25° C)

STOP BAND (MHz)		FCO (MHz)	PASS BAND (MHz)		VSWR (-1)		POWER INPUT (W)	NO. OF SECTIONS
(Loss > 40dB) Min.	(Loss > 20dB) Min.	Nom.	(Loss < 1.3dB) Max.	(Loss < 2dB) Typ.	Stopband	Frequency (MHz) 1.6:1		
230	350	440	600-1700	500-2500	20:1	500-1700	7	7

Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (-1)
30.53	67.79	97.09
100.00	61.35	70.51
230.00	60.66	36.14
350.00	30.68	13.62
385.00	15.85	6.35
410.00	7.98	2.68
440.00	3.65	1.21
450.00	3.06	1.13
500.00	1.84	1.05
510.00	1.71	1.07
600.00	1.08	1.16
800.00	0.68	1.31
1000.00	0.71	1.62
1500.00	0.40	1.29
1700.00	0.32	1.08
2500.00	0.70	1.83
4000.00	1.98	3.53

electrical schematic



Pin Connections

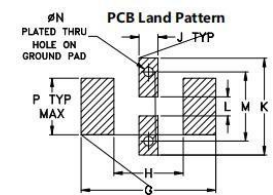
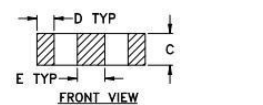
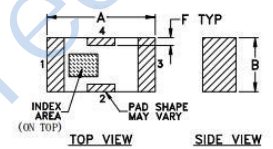
RF IN	1
RF OUT	3
GROUND	2,4

Maximum Ratings

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

* Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

Outline Drawing

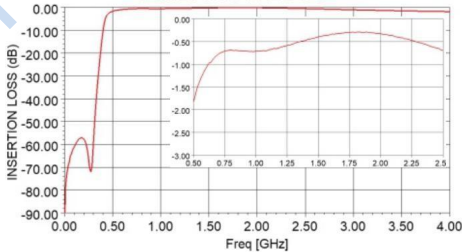


Suggested Layout
Tolerance to be within ±0.02

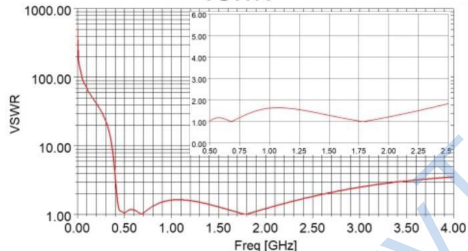
Outline Dimensions: Unit (mm)

A	3.20	B	1.60	C	0.95
D	0.51	E	0.81	F	0.23
G	4.29	H	2.21	J	0.61
K	3.10	L	0.61	M	2.21
N	0.30	P	1.8	wt	0.02g

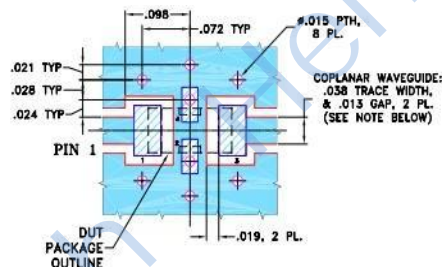
INSERTION LOSS



VSWR



Demo Board MCL P/N: T-39 Suggested PCB Layout (PL-137)



- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .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