

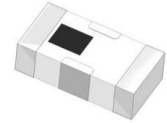
## Features

- 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-650+



50 Ω 710 to 2490 MHz

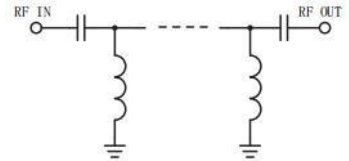
### Electrical Specifications (T<sub>AMB</sub>= 25° C)

STOP BAND (MHz)		FCO(MHz) Nom.	PASS BAND (MHz)		VSWR (∶1)		POWER INPUT (W)	NO. OF SECTIONS
(Loss>33dB) Min.	(Loss>20dB) Min.	(Loss 3dB) Typ.	(Loss<1.3dB) Max.	(Loss<2.1dB) Max.	Stopband Frequency (MHz) 1.5:1 Typ.			
390	480	710	850-2000	759-2490	20:1	760-1700	7	7

### Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (∶1)
10	59.22	92.51
390	33.08	30.85
480	32.21	24.57
560	27.70	17.34
550	28.80	18.48
600	21.14	12.18
650	10.66	5.09
710	3.15	1.21
850	1.23	1.15
1500	0.64	1.43
2000	0.46	1.21
2490	0.42	1.16
2800	0.55	1.44
4000	1.41	2.62

### electrical schematic



### Pin Connections

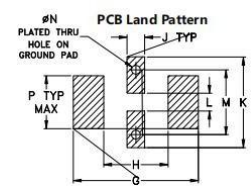
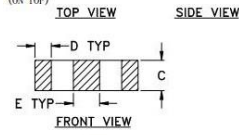
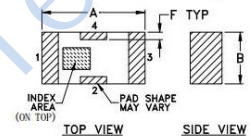
RF IN	1
RF OUT	3
GROUND	2,4

### 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, operate linearly to 5.0W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

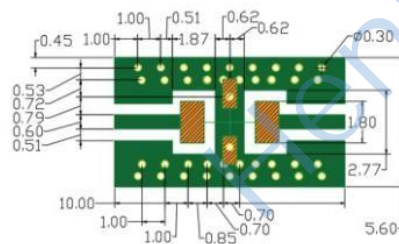
### Outline Drawing



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

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



- ES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508" ± .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

