

## 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

## HT-HFCN-3800+



50 Ω 4250 to 10000 MHz

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

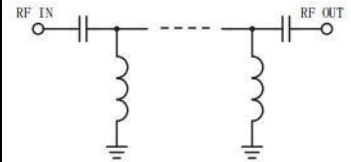
STOP BAND (MHz)		FCO <sub>1</sub> (MHz) Nom.	PASS BAND (MHz)		VSWR (:1)		POWER INPUT (W)	NO. OF SECTIONS
(Loss > 30dB) Typ.	(Loss > 20dB) Min.	(Loss 3dB) Typ.	(Loss < 1.5dB) Max.	(Loss < 2dB) Typ.	Stopband	Frequency (MHz) 1.5:1		
2500	3200	3800	4500-9000	4250-10000	20:1	3950-10000	7	5

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.  
 (2) Measured on Fenghua Characterization Test Board.

### Typical Performance Data at 25° C

Frequency (MHz)	Return Loss (dB)	VSWR (:1)
50	53.91	1737.18
240	40.00	1737.18
1000	31.58	157.93
1650	60.06	69.49
2150	37.69	32.79
2270	32.83	27.16
3000	28.27	25.72
3200	25.04	21.40
3800	3.03	1.47
4500	1.02	1.46
6000	1.13	1.34
8500	0.73	1.40
9000	0.91	1.52
10000	1.06	2.03
11000	1.71	2.31

### electrical schematic



### Pin Connections

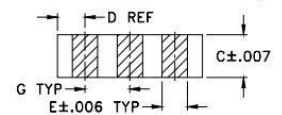
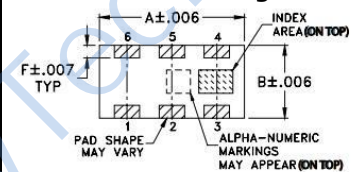
RF IN	1
RF OUT	3
GROUND	2,4,5,6

### Maximum Ratings

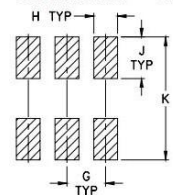
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	7W at 25°C

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

### Outline Drawing



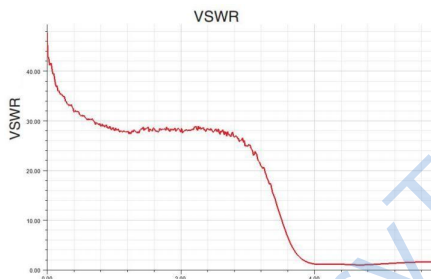
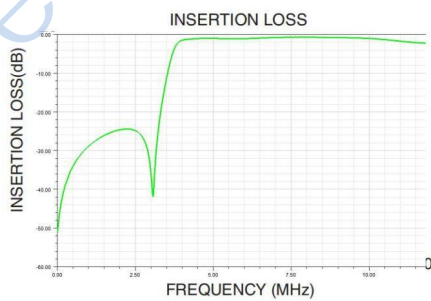
PCB Land Pattern



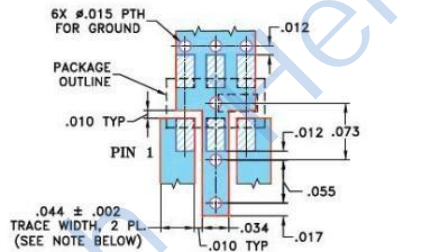
Suggested Layout

Tolerance-to-be-within ±0.02

Outline Dimensions: Unit (mm)					
A	3.20	B	1.60	C	0.89
D	0.61	E	0.56	F	0.28
G	0.99	H	0.61	J	1.07
K	3.12	wt			0.02g



### Demo Board P/N: TB-285 Suggested PCB Layout (PL-158)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS: .020 ± .0015; 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
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK