

# LTCC 巴伦变压器 (RF Transformer)

# HT-TCW2-282+

## Features

- Multilayer LTCC Technology
- Miniatured Size
- Low Insertion Loss reduces power consumption
- Low inband Amplitude and Phase imbalance
- Single ended 50 ohm differential 100 ohm

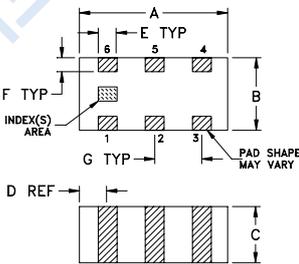
## Applications

- WLAN
- WiFi
- Cellular
- A/D conversion
- Transmitters and receivers

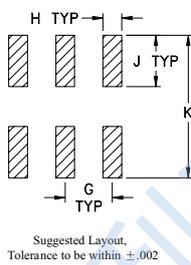
## Pad Connections

PRIMARY DOT (Unbalanced Port)	1
PRIMARY (GND)	2
SECONDARY DOT (Balanced)	3
SECONDARY (Balanced)	4
NO CONNECTION	6
GND	5

## Outline Drawing



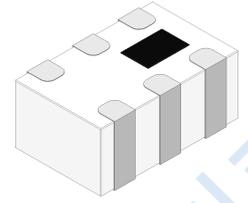
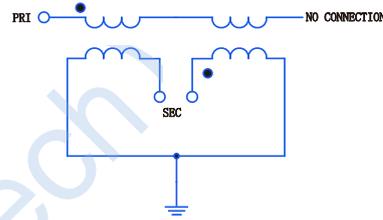
## PCB Land Pattern



## Outline Dimensions :

inch		mm			
A	B	C	D	E	F
.063	.031	.024	.012	.008	.006
1.60	0.79	0.61	0.30	0.20	0.15
G	H	J	K		wt
.020	.010	.022	.053		grams
0.51	0.25	0.56	1.35		0.005

## Functional Schematic



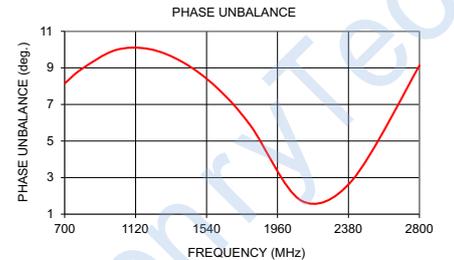
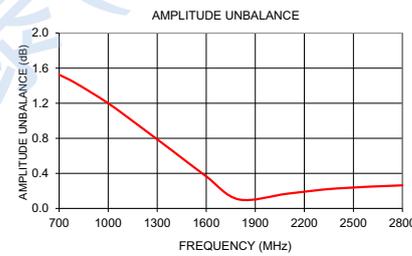
50 Ω 1:2 Ratio  
700MHz to 2800MHz

## Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Impedance Ratio (Secondary/Primary)		2			
Frequency Range		700		2800	MHz
Avg. Insertion Loss <sup>1</sup>	700 - 2800	—	1.2	2.0	dB
Amplitude Unbalance	700 - 2800	—	1	2.0	dB
Phase Unbalance <sup>2</sup>	700 - 2800	—	13	16	Degree

(1)Relative to 180°

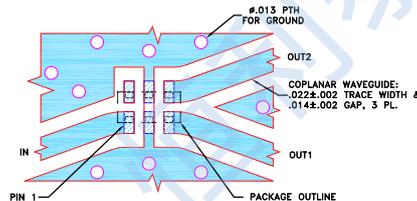
## Typical Performance Data at 25°C



## Notes

- The specifications are tested at 25°C±5°C, relative humidity 55~75%.
- Other quality and characteristic not specify in this datasheet.

## Suggested PCB Layout



- TRACE WIDTH AND GAP PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010"±.001", 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.

## Maximum Ratings

Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	0.5W at 25°C

\*Permanent damage may occur if any of these limits are exceeded.  
Suggestion for T&R unused product storage condition:  
+5~+35°C, Humidity 45~75%RH, 12 Month max.