LTCC 巴伦变压器（RF Transformer） HT-TCN1-23+

Features

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

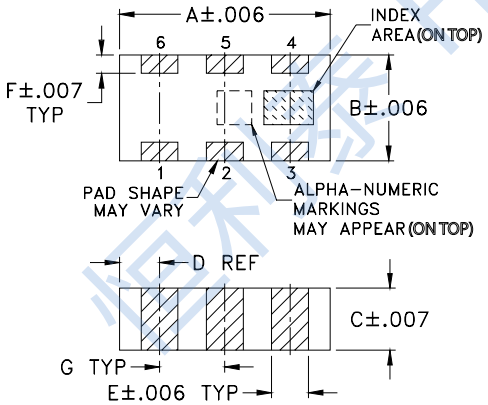
Applications

- DECT
- PCS
- PHS
- PDS
- PDC

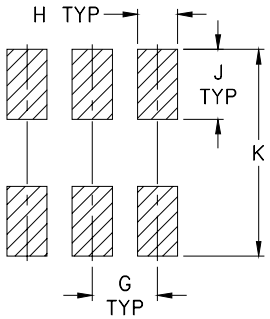
Pad Connections

PRIMARY DOT	4
PRIMARY (GND)	2,5
SECONDARY	6
SECONDARY DOT	1
NOT USED	3

Outline Drawing



PCB Land Patte



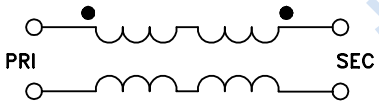
Suggested Layout,
Tolerance to be within.002

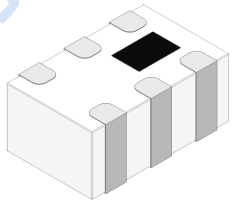
Outline Dimensions : inch / mm

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28

G	H	J	K	wt
.039	.024	.042	.123	grams
0.99	0.61	1.07	3.12	.020

Functional Schematic





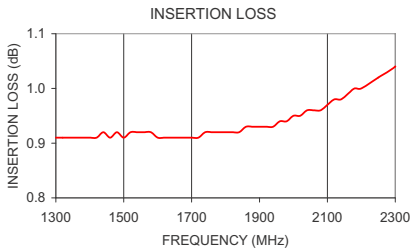
50Ω 1:1 Ratio
1000MHz to 2300MHz

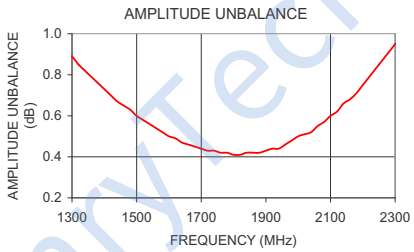
Electrical Specifications(1,2) at 25°C

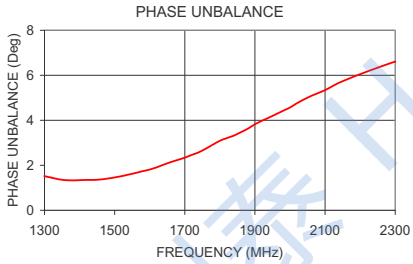
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Impedance Ratio (Secondary/Primary)			1		
Frequency Range		1000		2300	MHz
Insertion Loss[1]	1000 - 1300	—	1.38	—	dB
	1300 - 2300	—	0.8	—	dB
Amplitude Unbalance	1000 - 1300	—	1.6	—	dB
	1300 - 2300	—	0.7	—	dB
Phase Unbalance[2]	1000 - 1300	—	7.0	—	Degree
	1300 - 2300	—	5.0	—	Degree

(1)Insertion Loss is referenced to mid-band loss, 0.8 dB.
(2)Relative to 180°

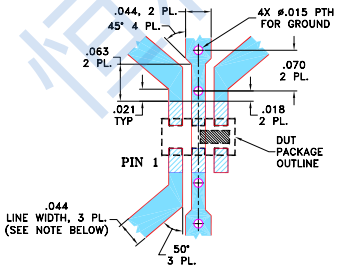
Typical Performance Data at 25°C







Suggested PCB Layout



NOTE:
1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B 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 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*	5W at 25°C

*Permanent damage may occur if any of these limits are exceeded.
From 85°C derate linearly to 2.5W at 100°C.

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