成都恒利泰科技有限公司
Chengdu HenryTech Technology co., Ltd

LTCC 巴伦变压器（RF Transformer） HT-NCS2-222+

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

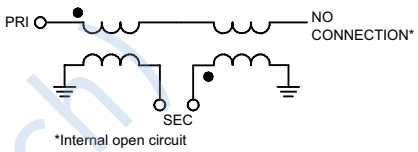
Applications

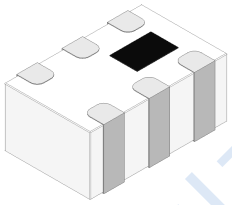
- GPS
- PCS
- WCDMA

Pad Connections

PRIMARY DOT (Unbalanced Port)	1
PRIMARY (GND)	2
SECONDARY (Balanced)	3
SECONDARY DOT (Balanced)	4
NOT USED (GND Externally)	5
NO CONNECTION	6

Functional Schematic





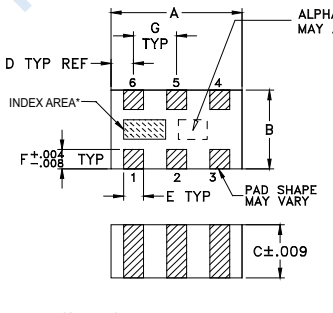
50Ω 1:2 Ratio
1275MHz to 2200MHz

Electrical Specifications(1,2) at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Impedance Ratio (Secondary/Primary)			2		
Frequency Range		1275		2200	MHz
Insertion Loss[1]	1275 - 2200	—	1.0	—	dB
Amplitude Unbalance	1275 - 2200	—	0.4	—	dB
Phase Unbalance[2]	1275 - 2200	—	5.5	—	Degree

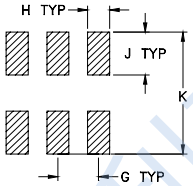
(1)Insertion Loss is referenced to mid-band loss, 0.8 dB.
(2)Relative to 180°

Outline Drawing



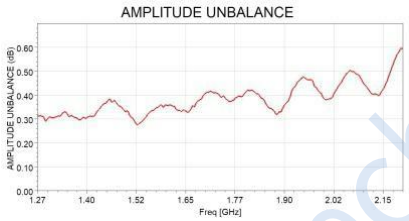
*Shape of index marking may vary

PCB Land Pattern



Suggested Layout,
Toleranceotbe within ±.002

Typical Performance Data at 25°C

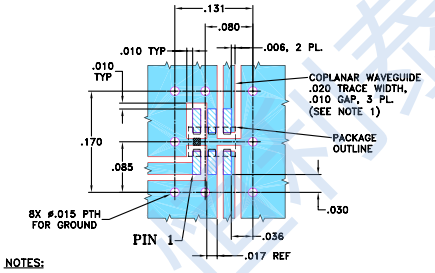


Outline Dimensions： inch / mm

A	B	C	D	E	F
.079	.049	.033	.014	.012	.012
2.01	1.24	0.84	0.36	0.30	0.30

G	H	J	K	wt
.026	.014	.039	.110	grams
0.66	0.36	1.00	2.80	.008

Suggested PCB Layout



NOTES:
1. COPLANAR WAVEGUIDE 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.
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

* Line width should be designed to match 50 characteristic impedance, depending on PCB material and thickness.

Maximum Ratings

Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	3W 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.

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