RF Transformer

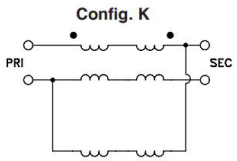
JY-TCM1-43X+

Features

- wide bandwidth 10 to 4000 MHz
- balanced transmission line
- low insertion loss, 1.1 dB typ.
- excellent return loss
- aqueous washable

Applications

- PCS
- wideband push-pull amplifiers
- cellular



50Ω 10 to 4000 MHz

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.4W
DC Current	30mA

Permanent damage may occur if any of these limits are exceeded.

Pad Connections

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

*Pin 1 and 2 must be connected together to form Config. K; We recommend grounding this side of the primary as shown in PL-364.

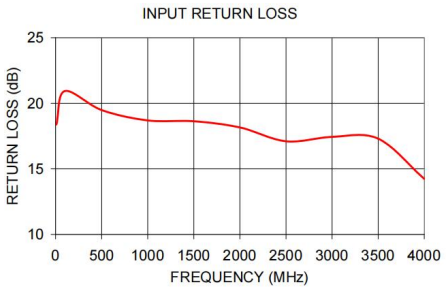
Electrical Specifications at 25°C

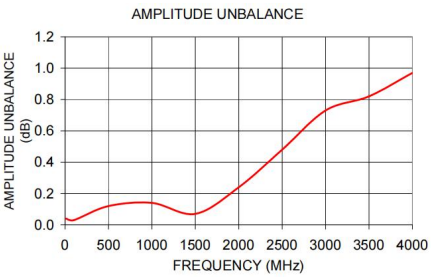
Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio	-	-	1	-	-
Frequency Range	-	10	-	4000	Mhz
Insertion Loss*	10-4000	-	1.1	3.0	dB
Amplitude Unbalance	10-4000	-	0.5	-	dB
Phase Unbalance†	10-4000	-	7	-	Degree

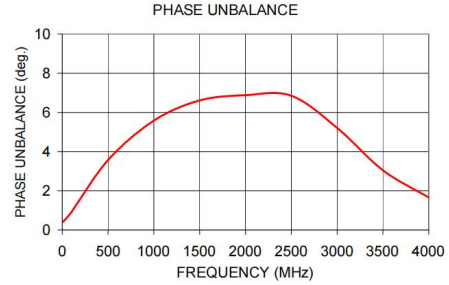
Typical Performance Data

(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

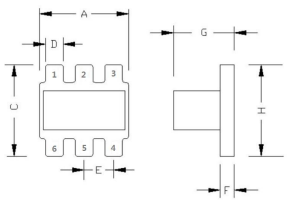
FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
10	1.09	18.38	0.04	0.42
100	1.02	20.93	0.03	0.91
500	1.04	19.48	0.12	3.57
1000	1.02	18.69	0.14	5.58
1500	1.01	18.63	0.07	6.61
2000	1.04	18.16	0.24	6.88
2500	1.11	17.10	0.48	6.85
3000	1.17	17.44	0.73	5.21
3500	1.33	17.30	0.82	3.05
4000	1.67	14.24	0.97	1.66



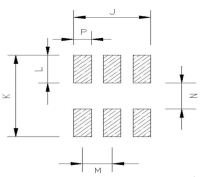




Outline Drawing



PCB Land Pattern

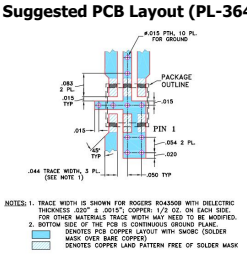


Suggested Layout, Tolerance to be within ±0.02

Outline Dimensions: Unit (mm)

A	3.81	C	3.81	D	0.76
E	1.27	F	0.61	G	2.61
H	3.81	J	3.30	K	4.83
L	1.65	N	1.53	M	1.27
WT		0.15g		P	0.76

Suggested PCB Layout (PL-364)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .001", COPPER 1/2 OZ. ON 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

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