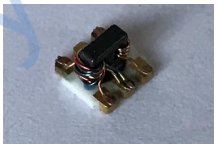
RF Transformer

HT-TCM1-83X+

Features
- ultra wide bandwidth 10 to 8000 MHz
- one model covers all telecommunication bands
- flat insertion loss
- good return loss
- aqueous washable

Applications
- differential modulator/demodulator and active mixers
- wideband push-pull amplifiers
- LTE, Cellular, PCS, UMTS, WiFi, WiMAX



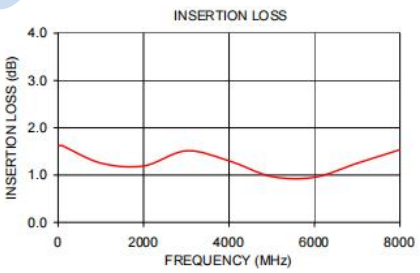
50Ω 10 to 8000 MHz

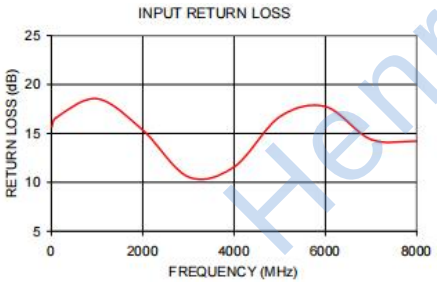
Electrical Specifications at 25°C

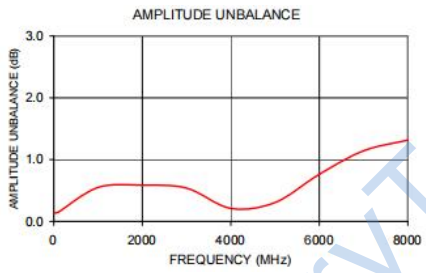
Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio	-	-	1	-	-
Frequency Range	-	10	-	8000	Mhz
Insertion Loss	10-6000 6000-8000	-	1.3 1.3	2.5 3.0	dB
Amplitude Unbalance	10-6000 6000-8000	- -	0.5 1.1	- -	dB
Phase Unbalance	10-6000 6000-8000	- -	8 4	- -	Degree

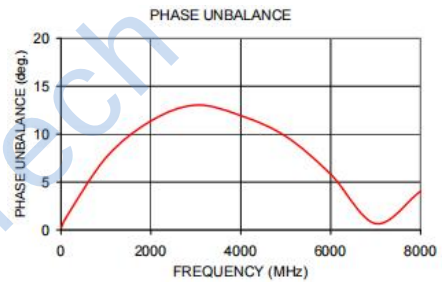
Typical Performance Data
(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
10	1.62	15.68	0.14	0.26
100	1.62	16.58	0.15	1.19
1000	1.25	18.55	0.55	7.54
2000	1.19	15.35	0.59	11.37
3000	1.51	10.56	0.54	13.02
4000	1.30	11.57	0.21	11.93
5000	0.97	16.70	0.31	9.77
6000	0.95	17.74	0.76	5.81
7000	1.25	14.39	1.14	0.67
8000	1.54	14.19	1.32	4.03









Maximum Ratings

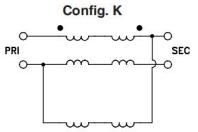
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.2W
DC Current	30mA

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

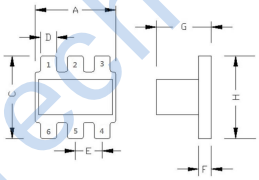
Pid Connections

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

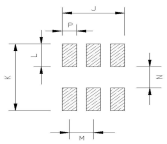
Config. K



Outline Drawing



PCB Land Pattern

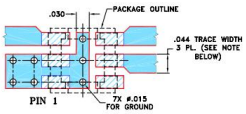


Suggested Layout,Tolerance to be within ±0.02

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



NOTES: 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

JY-

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