

RF Transformer

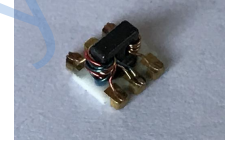
Features

- wide bandwidth 20 to 4500 MHz
- balanced transmission line
- excellent return loss
- aqueous washable

Applications

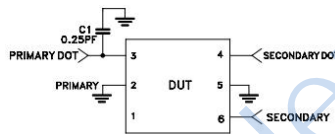
- PCS
- wideband push-pull amplifiers
- cellular

HT-TCM4-452X+



50Ω 20 to 4500 MHz

Electrical Schematic



Electrical Specifications at 25°C

Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio	-	-	4	-	-
Frequency Range	-	20	-	4500	Mhz
Insertion Loss	20-4500	-	1.5	3.0	dB
Amplitude Unbalance	20-4500	-	0.5	-	dB
Phase Unbalance	20-4500	-	5	-	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.)
10.0	1.54	15.59	0.04	0.06
500.0	1.44	16.30	0.02	2.83
1000.0	1.45	12.89	0.03	4.85
1500.0	1.55	10.82	0.01	6.26
2000.0	1.60	10.63	0.17	6.46
2500.0	1.57	12.23	0.19	5.36
3000.0	1.54	15.11	0.22	4.87
3500.0	1.58	17.73	0.61	2.79
4000.0	1.73	21.68	0.85	0.04
4500.0	1.82	33.66	0.89	0.58

Maximum Ratings

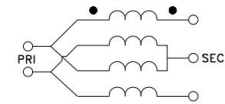
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.4W
DC Current	30mA

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

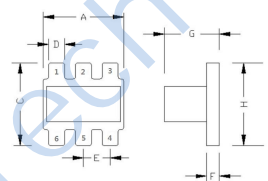
Pin Connections

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

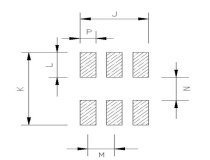
Config. H



Outline Drawing



PCB Land Pattern

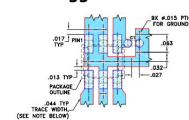


Suggested Layout, Tolerance to be within ±0.02

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 PROCESS PROVISION WITH SELECTING THICKNESS 0.025" & 0.0015" COPPER (1/2 OZ. EACH SIDE). FOR OTHER CUSTOMER TRACE WIDTH MAY VARY.
 2. TO BE NOTIFIED.
 3. WITHIN SIZE OF THE PCB IS CONTINUOUS AROUND PLANE.
 4. ONLY USE SMD COMPONENT FOOTPRINT IS SHOWN FOR REFERENCE. FOR COMPONENT VALUE REFER TO 10-997.
 5. SOLDERED PINS SHOULD ALWAYS WITH SMD/C SOLDER.
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 7. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

