

# Surface Mount RF Transformer

## TCM2-672X-1+

50Ω 1700 to 6700 MHz

### Features

- wide bandwidth 1700 to 6700 MHz
- balanced transmission line
- excellent return loss
- aqueous washable

### Applications

- PCS
- wideband push-pull amplifiers
- cellular



Generic photo used for illustration purposes only

CASE STYLE: DB1627

**+RoHS Compliant**

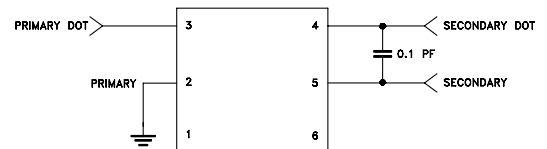
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost	
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

### Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (secondary/primary)			2		
Frequency Range		1700		6700	MHz
Insertion Loss	1700-6700	—	1.1	2.5	dB
Amplitude Unbalance	1700-6700	—	0.8	—	dB
Phase Unbalance	1700-6700	—	6	—	Degree

### Electrical Schematic



### Maximum Ratings

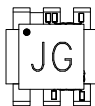
Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.4W
DC Current	30mA

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

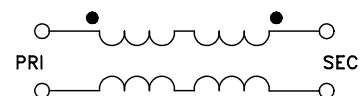
### Pin Connections

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

### Product Marking

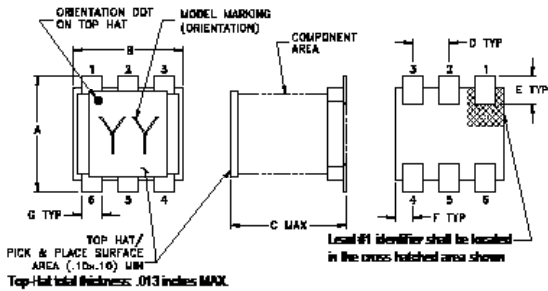


### Config. G



# TCM2-672X-1+

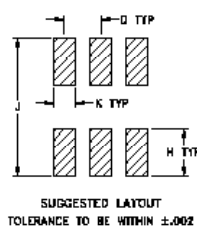
## Outline Drawing



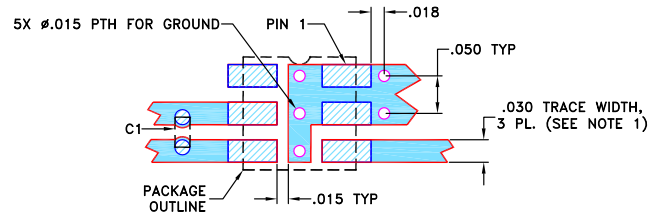
## Outline Dimensions (inch/mm)

A	B	C	D	E	F
.160	.150	.160	.050	.040	.025
4.06	3.81	4.06	1.27	1.02	0.64
G	H	J	K		wt
.028	.065	.190	.030		grams
0.71	1.65	4.83	0.76		0.15

## PCB Land Pattern



Demo Board MCL P/N: TB-742+  
Suggested PCB Layout (PL-422)



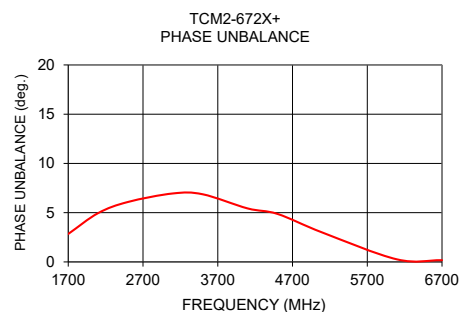
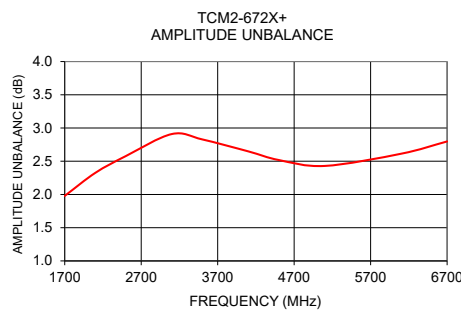
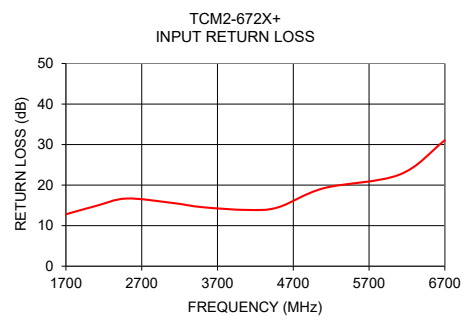
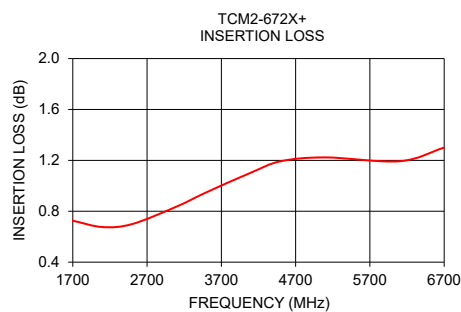
COMPONENT	SIZE
C1	0402

## NOTES:

- TRACE WIDTH PARAMETERS ARE SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .0133"±.001". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
  - CHIP COMPONENT FOOT PRINTS SHOWN FOR REFERENCE. FOR COMPONENT VALUES REFER TO TB-742+.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
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## Typical Performance Data

Frequency (MHz)	Avg. Insertion Loss (dB)	Input R. Loss (dB)	Amplitude Unbalance (dB)	Phase Unbalance (Deg.)
1700	0.73	12.81	1.02	2.84
2100	0.68	14.88	0.67	4.96
2500	0.70	16.69	0.42	6.09
3100	0.84	15.62	0.09	6.95
3500	0.95	14.56	0.17	6.87
4100	1.10	13.88	0.35	5.43
4500	1.19	14.52	0.48	4.87
5100	1.22	19.23	0.57	2.98
6100	1.19	22.57	0.39	0.25
6700	1.30	31.04	0.20	0.17



## Additional Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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