



**THE DATASHEET OF  
TC1-1TX+**





top hat  
SURFACE MOUNT  
RF Transformer

TC1-1TX+

50Ω 0.4 to 500 MHz

FEATURES

- Usable over 0.4-500 MHz
- Excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 2 deg typ. in 1 dB bandwidth
- Good return loss
- Plastic base with leads
- Aqueous washable



Generic photo used for illustration purposes only

CASE STYLE: AT1521

+RoHS Compliant

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

APPLICATIONS

- VHF/UHF receivers/transmitters
- Push-pull amplifiers

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio			1		Ohm
Frequency Range		0.4		500	MHz
Insertion Loss*	0.4-500		3		dB
	0.5-300		2		
	1-100		1		
Amplitude Unbalance	1-100		0.1		dB
	0.5-300		0.6		
Phase Unbalance	1-100		2		Degree
	0.5-300		5		

\* Insertion Loss is referenced to mid-band loss, 0.35 dB typ.

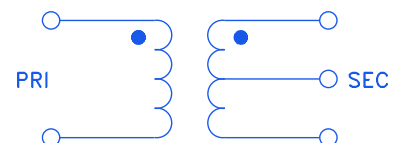
ECO-021735

MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA

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

CONFIG. A



REV. C  
ECO-021735  
TC1-1TX+  
MCL NY  
240506





top hat  
SURFACE MOUNT  
RF Transformer

TC1-1TX+

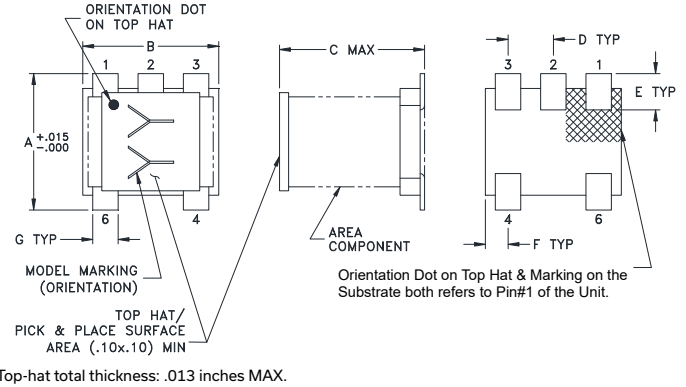
50Ω 0.4 to 500 MHz

**PIN CONNECTIONS**

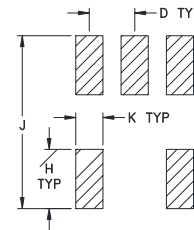
Function	Pin Number
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
SECONDARY CT	2

**PRODUCT MARKING:** AN

**OUTLINE DRAWING**



**PCB Land Pattern**



Suggested Layout,  
Tolerance to be within  $\pm 0.002$

**OUTLINE DIMENSIONS (Inch mm)**

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

Weight: 0.15 grams

**TAPE & REEL INFORMATION: F17**



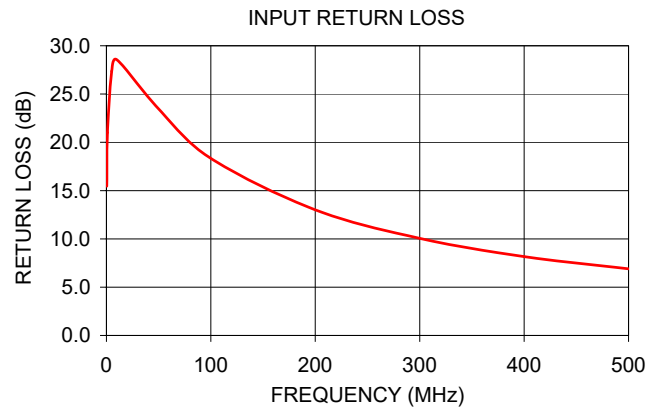
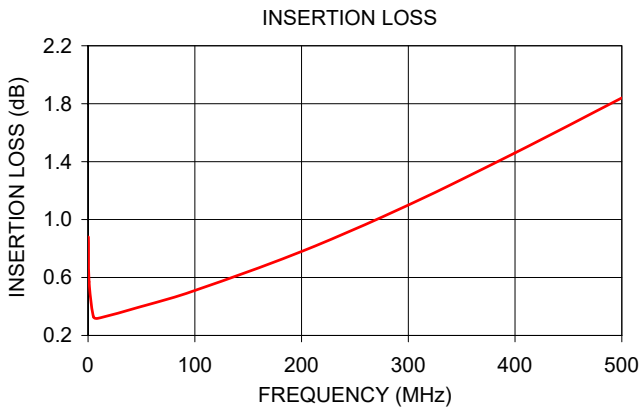
top hat  
SURFACE MOUNT  
RF Transformer

TC1-1TX+

50Ω 0.4 to 500 MHz

TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
0.30	0.88	15.46	0.06	0.03
1.00	0.57	21.01	0.04	0.05
5.00	0.33	27.35	0.02	0.01
10.00	0.32	28.55	0.02	0.15
50.00	0.40	23.46	0.02	0.63
100.00	0.51	18.34	0.06	1.24
200.00	0.78	13.01	0.21	2.57
300.00	1.10	10.06	0.47	3.99
400.00	1.46	8.16	0.82	5.66
500.00	1.84	6.90	1.26	7.50





- NOTES**
- A. 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.
  - B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
  - C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/terms/viewterm.html](http://www.minicircuits.com/terms/viewterm.html)



## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View TC1-1TX+ on WIN SOURCE](#)
-  [Mini-Circuits Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management