

Surface Mount RF Transformer

This model is a reference design for ADI (Linear Technology) LTC6432-15

SYTX2-6T-1+

50Ω 0.05 to 35 MHz

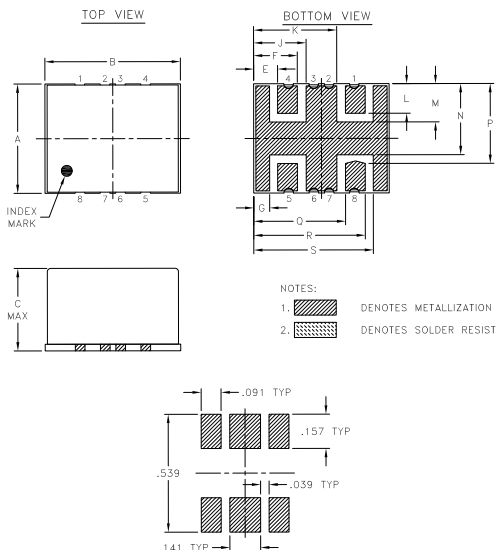
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.01W
DC Current	30mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

PRIMARY DOT	1
PRIMARY	4
SECONDARY DOT	8
SECONDARY	5
SECONDARY CT	2,3,6,7(GND)

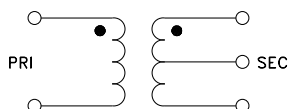
Outline Drawing



Outline Dimensions (inch)

A	B	C	E	F	G	J	K
.50	.62	.38	.110	.200	.073	.240	.380
12.70	15.75	9.65	2.79	5.08	1.85	6.10	9.65
L	M	N	P	Q	R	S	wt
.135	.175	.325	.365	.420	.510	0.547	grams
3.43	4.45	8.26	9.27	10.67	12.95	13.89	3.00

Config. A



Features

- good IP3 at low frequencies

Applications

- linear amplifier



CASE STYLE: 99-01-1596-1

+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
13"	200

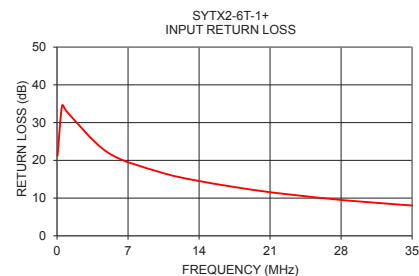
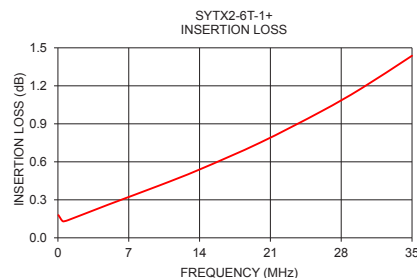
Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (secondary/primary)			2		Ohm
Frequency Range		0.05	—	35	MHz
Insertion Loss	0.05-10	—	—	1	dB
	10-20	—	—	2	
	20-35	—	—	3	
IP3* (2 tones, 10KHz separation @ 10 dBm)		30	—	—	dB

* By design, evaluated by customer, not tested in production.

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
0.050	0.18	21.19
0.500	0.13	34.47
1.000	0.14	32.80
5.000	0.26	22.08
10.000	0.41	16.99
14.000	0.54	14.52
20.000	0.75	11.92
26.000	1.00	10.04
30.000	1.18	9.05
35.000	1.44	8.03



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-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp



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SYTX2-6T-1+
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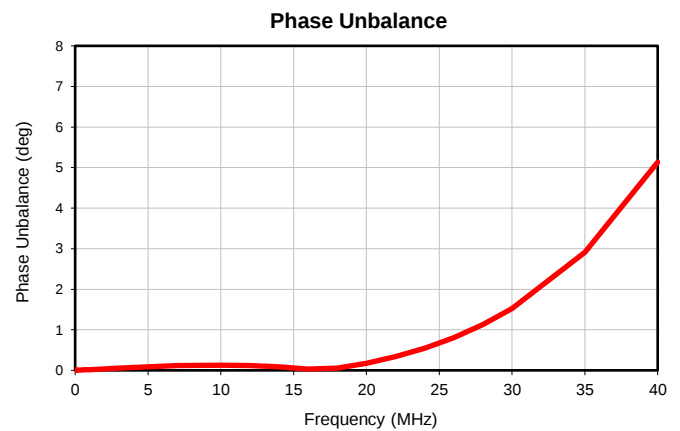
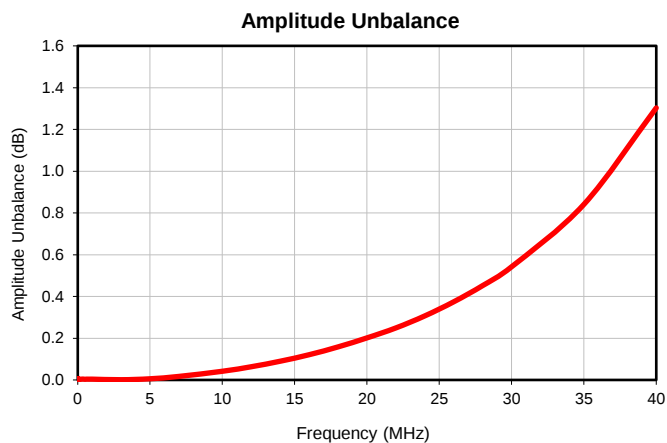
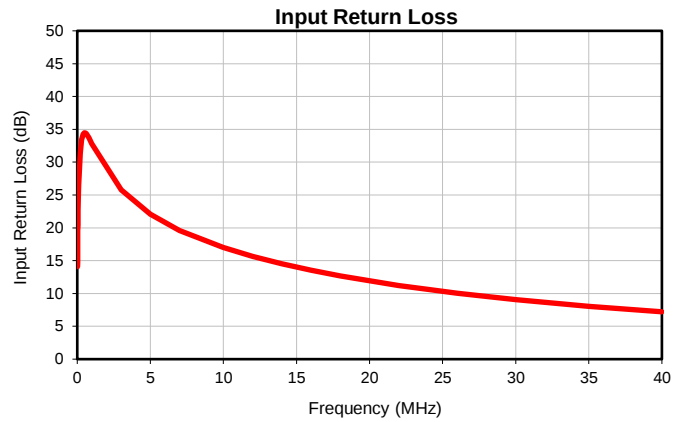
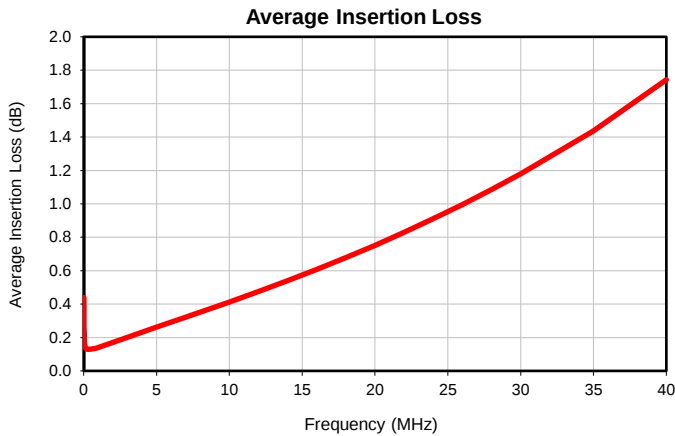
RF Transformer

SYTX2-6T-1+

Typical Performance Data

FREQUENCY MHz	AVERAGE INSERTION LOSS (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (deg.)
0.018	0.44	14.09	0.01	0.01
0.020	0.39	14.75	0.00	0.01
0.025	0.31	16.25	0.01	0.01
0.030	0.26	17.50	0.00	0.01
0.035	0.23	18.59	0.00	0.01
0.040	0.21	19.56	0.00	0.01
0.045	0.19	20.42	0.00	0.01
0.05	0.18	21.19	0.00	0.01
0.06	0.16	22.60	0.00	0.01
0.08	0.15	24.80	0.00	0.01
0.1	0.14	26.51	0.00	0.01
0.2	0.13	31.34	0.00	0.00
0.3	0.13	33.39	0.00	0.01
0.4	0.13	34.25	0.00	0.00
0.5	0.13	34.47	0.00	0.01
0.6	0.13	34.39	0.00	0.01
0.8	0.14	33.72	0.00	0.01
1	0.14	32.80	0.00	0.01
3	0.20	25.78	0.00	0.05
5	0.26	22.08	0.01	0.09
7	0.32	19.61	0.02	0.12
10	0.41	16.99	0.04	0.13
12	0.47	15.65	0.06	0.12
14	0.54	14.52	0.09	0.09
16	0.61	13.54	0.12	0.03
18	0.68	12.68	0.16	0.06
20	0.75	11.92	0.20	0.18
22	0.83	11.23	0.25	0.34
24	0.91	10.61	0.31	0.55
26	1.00	10.04	0.37	0.80
28	1.09	9.53	0.45	1.13
30	1.18	9.05	0.54	1.52
35	1.44	8.03	0.84	2.91
40	1.74	7.21	1.30	5.13

Typical Performance Data





All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215