

Surface Mount RF Transformer

ADT16-6

50Ω 0.25 to 105 MHz



CASE STYLE: CD636

Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.5W
DC Current	30mA

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

Pin Connections

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

Features

- excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 3 deg. typ. in 1 dB bandwidth
- aqueous washable
- protected under US patent 6,133,525

Applications

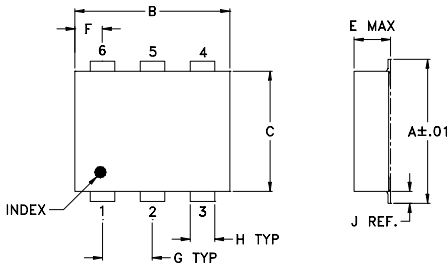
- impedance matching
- balanced amplifier

Transformer Electrical Specifications

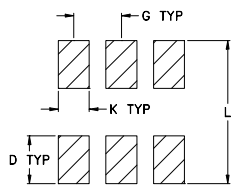
Ω RATIO (Secondary/Primary)	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
16	0.25-105	0.25-105	0.45-75	1-40	2	5	0.1	0.2

* Insertion Loss is referenced to mid-band loss, 0.5 dB typ.

Outline Drawing



PCB Land Pattern



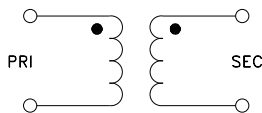
Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.162	.055	.100
6.91	7.87	5.59	2.54	4.11	1.40	2.54
H	J	K	L			wt
.030	.026	.065	.300			grams
0.76	0.66	1.65	7.62			0.25

Demo Board MCL P/N: TB-430

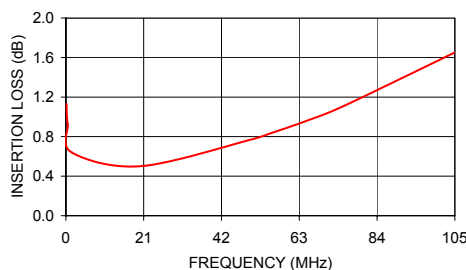
Config. C



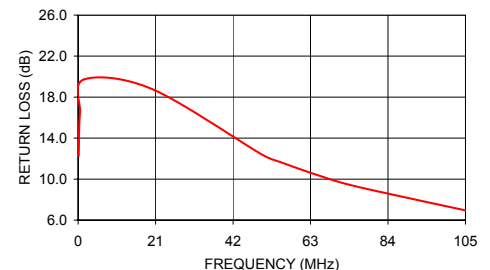
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
0.17	1.13	12.27	0.01	0.03
0.26	1.01	14.51	0.01	0.03
0.50	0.92	16.52	0.01	0.06
1.60	0.64	19.73	0.01	0.18
20.00	0.50	18.79	0.02	2.32
50.00	0.77	12.36	0.12	4.94
55.00	0.83	11.64	0.13	5.27
65.00	0.96	10.38	0.15	5.75
75.00	1.11	9.32	0.15	6.13
106.00	1.67	6.87	0.01	6.64

ADT16-6
INSERTION LOSS



ADT16-6
INPUT RETURN LOSS



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.
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