Engineering Development Model

RF Transformer ADTL1-ED10824/5

Impedance Ratio : 1

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

Please click "Back", and then click "Contact Us" for Applications support.

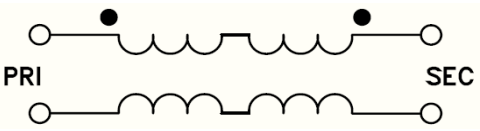
CASE STYLE : 99-01-964

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		20		1500	MHz
Insertion Loss *	**3 dB Bandwidth**		20 - 1500		MHz
	2 dB Bandwidth		20 - 1500		MHz
	1 dB Bandwidth		55 - 1000		MHz

Notes:
* Insertion Loss is referenced to mid-band loss, 0.28dB typ.

MAXIMUM RATINGS	
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25 W
DC Current	30 mA

Configuration : G



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

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Typical Performance Data

FREQUENCY (MHz)	AVERAGE INSERTION LOSS (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (deg.)
20.00	0.31	26.21	1.32	8.89
30.00	0.29	28.26	1.18	6.20
40.00	0.28	29.71	1.12	4.60
50.00	0.28	30.89	1.08	3.50
55.00	0.28	31.44	1.07	3.16
60.00	0.29	32.10	1.07	2.76
70.00	0.29	33.27	1.05	2.22
80.00	0.28	34.66	1.03	1.64
90.00	0.29	35.98	1.02	1.26
100.00	0.30	36.82	1.00	0.88
150.00	0.32	36.75	0.98	0.56
200.00	0.34	48.84	0.96	1.55
250.00	0.37	37.54	0.94	2.42
300.00	0.40	38.06	0.90	3.20
350.00	0.42	31.01	0.87	3.84
400.00	0.46	30.71	0.85	4.56
450.00	0.49	27.15	0.81	5.12
500.00	0.52	25.73	0.75	5.69
550.00	0.55	24.59	0.71	6.14
600.00	0.58	22.40	0.64	6.60
650.00	0.62	22.54	0.56	7.03
700.00	0.64	20.59	0.49	7.48
750.00	0.66	20.60	0.43	7.89
800.00	0.70	19.74	0.36	8.19
850.00	0.70	19.05	0.28	8.37
900.00	0.74	19.36	0.20	8.62
950.00	0.76	18.23	0.10	8.82
1000.00	0.78	19.15	0.01	8.96
1100.00	0.83	18.89	0.17	9.03
1200.00	0.88	18.98	0.36	8.99
1300.00	0.93	19.19	0.54	8.68
1400.00	1.01	19.25	0.73	8.15
1500.00	1.08	18.40	0.88	7.45

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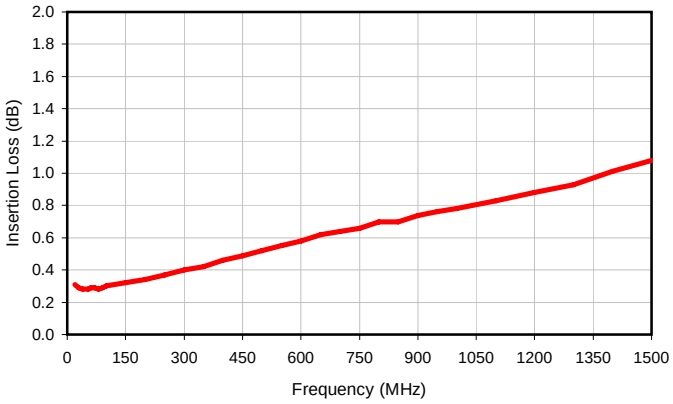
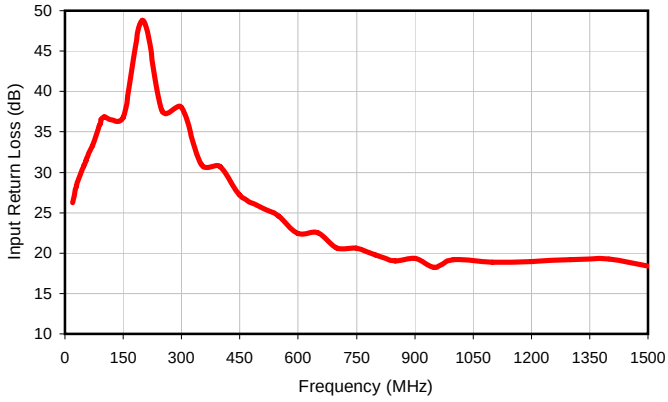
Typical Performance Data

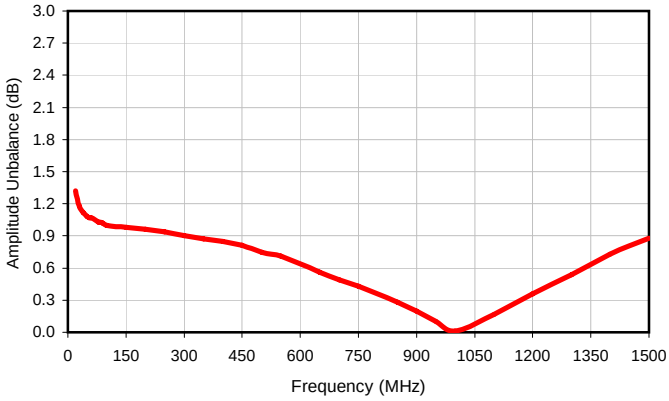
Insertion Loss Average



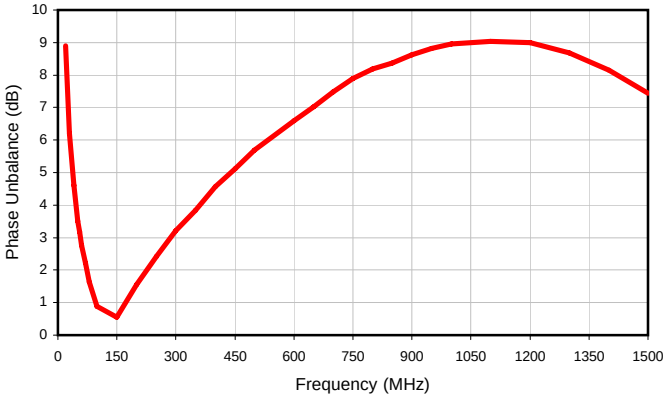
Input Return Loss



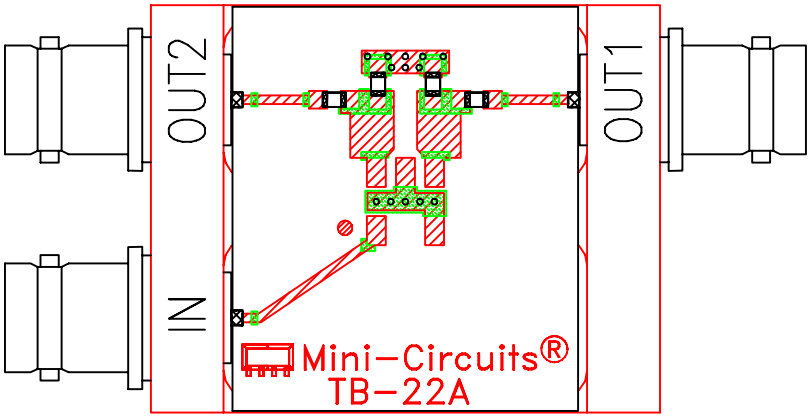
Amplitude Unbalance



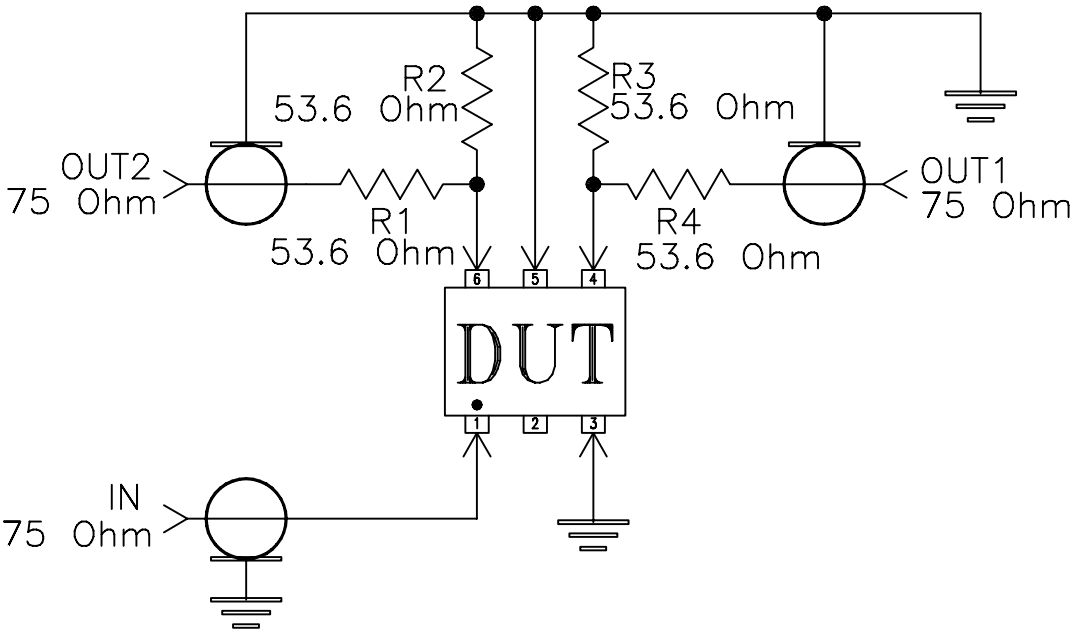
Phase Unbalance



Evaluation Board and Circuit



TB-22



Schematic Diagram

Notes:

1. 75 Ohm BNC Female connectors.
2. PCB Material: Rogers RO4350 or equivalent, Dielectric Constant=3.5, Thickness=.030 inch.

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Environmental Specifications ENV02

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	-20° 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