Engineering Development Model

RF Transformer TXA4-ED12703

Impedance Ratio : 4

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.

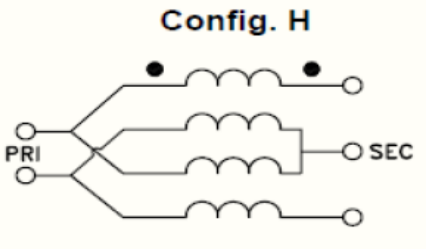
CASE STYLE : 99-01-1259

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		30		700	MHz
Insertion Loss *	**3 dB Bandwidth**		30-700		MHz
	2 dB Bandwidth		30-600		MHz
	1 dB Bandwidth		30-100		MHz
Amplitude Unbalance	**Over 2 dB Bandwidth**		0.16		(dB)
	Over 1 dB Bandwidth		0.20		(dB)
Phase Unbalance	**Over 2 dB Bandwidth**		0.55		(Deg.)
	Over 1 dB Bandwidth		0.90		(Deg.)

Note:
* Insertion Loss is referenced to mid-band loss, 0.55 dB typ. This is a stepdown transformer with primary impedance of 50 ohms and secondary of 12.5 ohms

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF POWER	3W
DC CURRENT	25mA

PIN CONNECTIONS	
PRIMARY DOT	2
PRIMARY	1
SECONDARY DOT	7
SECONDARY	8
GROUND	3,4,5,6,9,10,11,12



Configuration shown for reference only

RF Transformer TXA4-ED12703

Typical Performance Data

FREQUENCY (MHz)	AVERAGE INSERTION LOSS (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (deg.)
30.00	0.55	22.22	0.16	1.93
40.00	0.59	22.97	0.18	1.35
50.00	0.62	23.17	0.20	1.04
60.00	0.65	23.07	0.20	0.83
70.00	0.65	22.87	0.20	0.68
80.00	0.66	22.67	0.20	0.56
90.00	0.68	22.40	0.21	0.45
100.00	0.70	22.12	0.21	0.36
125.00	0.71	21.56	0.20	0.19
150.00	0.73	20.96	0.20	0.09
175.00	0.75	20.52	0.20	0.02
200.00	0.76	20.24	0.20	0.12
225.00	0.77	20.16	0.19	0.19
250.00	0.77	20.12	0.19	0.23
300.00	0.77	20.57	0.17	0.35
350.00	0.76	21.91	0.16	0.42
400.00	0.76	24.99	0.14	0.49
450.00	0.75	28.37	0.13	0.54
475.00	0.75	26.76	0.12	0.58
500.00	0.77	23.28	0.11	0.58
512.00	0.79	21.69	0.11	0.59
525.00	0.81	20.18	0.11	0.58
550.00	0.86	17.61	0.10	0.52
600.00	1.03	13.42	0.06	0.59
650.00	1.33	10.36	0.04	0.70
700.00	1.77	8.06	0.04	0.80

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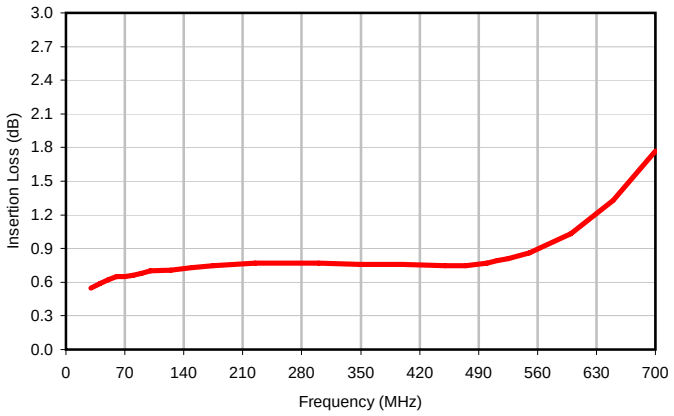
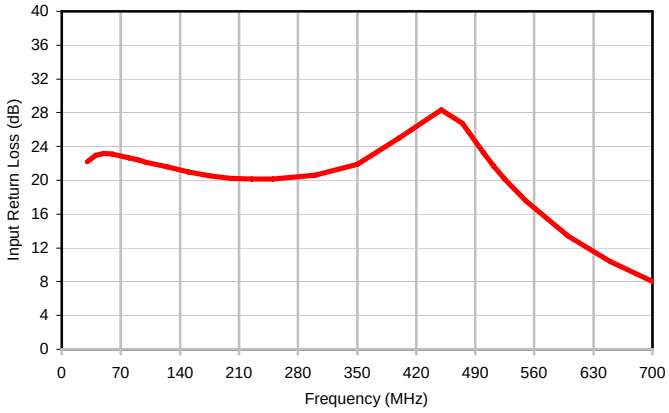
Typical Performance Data

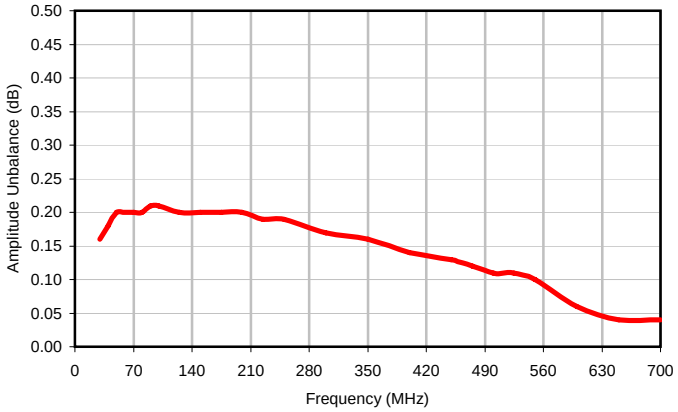
Insertion Loss Average



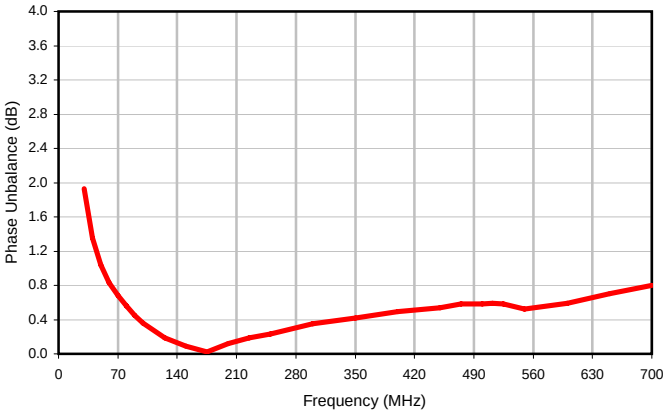
Input Return Loss



Amplitude Unbalance



Phase Unbalance



Mini-Circuits

Environmental Specifications ENV02T1

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