Engineering Development Model

Power Splitter/Combiner RACK-2-ED9940A/8

2 Way-0°

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.

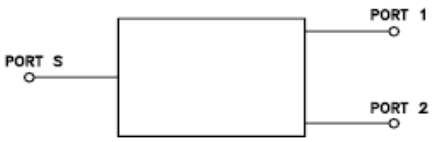
CASE STYLE: 99-01-939

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		1800		2150	MHz
Isolation	**1800-2150 MHz**		6		dB
Insertion Loss Above 3.0 dB	**1800-2150 MHz**		0.15		dB
Phase Unbalance	**1800-2150 MHz**		0.60		deg.
Amplitude Unbalance	**1800-2150 MHz**		0.07		dB
VSWR	**SUM Port**		1.05		(:1)
	OUT Ports		3.02		(:1)

MAXIMUM RATINGS	
Operating Temperature	-5°C to 85°C
Storage Temperature	-40°C to 85°C

COAXIAL CONNECTIONS	
SUM PORT	J1, N-TYPE, JACK
PORT 1	J3, SMA, PLUG
PORT 2	J4, SMA, PLUG

Functional Diagram



2 Way-0° Power Splitter/Combiner RACK-2-ED9940A/8

Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS[1] (dB)		AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)	PHASE UNBALANCE (deg.)
	J1-J3	J1-J4		J3-J4	
1800.0	3.07	3.02	0.05	6.04	0.33
1810.0	3.07	3.02	0.05	6.04	0.36
1820.0	3.08	3.05	0.03	6.05	0.42
1830.0	3.07	3.01	0.06	6.03	0.33
1840.0	3.07	3.01	0.06	6.01	0.38
1850.0	3.07	3.01	0.06	6.01	0.52
1860.0	3.07	3.03	0.04	6.03	0.52
1870.0	3.07	3.03	0.04	6.07	0.38
1880.0	3.11	3.05	0.06	6.09	0.43
1890.0	3.10	3.05	0.05	6.10	0.42
1900.0	3.11	3.05	0.06	6.10	0.49
1930.0	3.13	3.06	0.07	6.08	0.43
1935.0	3.12	3.06	0.06	6.08	0.60
1940.0	3.13	3.05	0.08	6.07	0.66
1945.0	3.13	3.07	0.06	6.07	0.46
1950.0	3.14	3.07	0.07	6.06	0.56
1955.0	3.13	3.07	0.06	6.07	0.50
1960.0	3.13	3.06	0.07	6.09	0.55
1965.0	3.15	3.06	0.09	6.12	0.53
1970.0	3.14	3.08	0.06	6.12	0.52
1975.0	3.14	3.08	0.06	6.13	0.55
1980.0	3.16	3.07	0.09	6.16	0.58
1985.0	3.15	3.08	0.07	6.16	0.57
1990.0	3.14	3.08	0.06	6.18	0.66
2000.0	3.18	3.09	0.09	6.18	0.56
2010.0	3.18	3.10	0.08	6.15	0.56
2020.0	3.20	3.11	0.09	6.16	0.55
2030.0	3.20	3.11	0.09	6.15	0.72
2040.0	3.21	3.12	0.09	6.15	0.65
2050.0	3.19	3.12	0.07	6.17	0.64
2060.0	3.19	3.10	0.09	6.19	0.66
2070.0	3.19	3.11	0.08	6.21	0.72
2080.0	3.20	3.11	0.09	6.22	0.77
2090.0	3.23	3.14	0.09	6.23	0.80
2100.0	3.23	3.15	0.08	6.22	0.87
2110.0	3.26	3.16	0.10	6.24	0.81
2120.0	3.26	3.17	0.09	6.25	0.84
2130.0	3.27	3.18	0.09	6.25	0.92
2140.0	3.26	3.16	0.10	6.26	0.84
2150.0	3.24	3.15	0.09	6.25	0.82

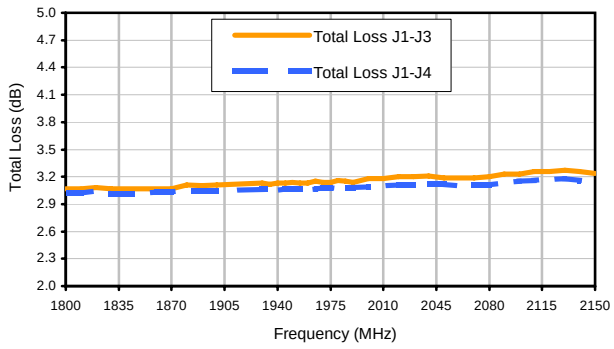
FREQUENCY (MHz)	VSWR (:1)		
	J1	J3	J4
1800.0	1.13	2.87	2.86
1810.0	1.12	2.85	2.85
1820.0	1.12	2.84	2.84
1830.0	1.11	2.82	2.84
1840.0	1.11	2.81	2.84
1850.0	1.10	2.81	2.85
1860.0	1.09	2.82	2.87
1870.0	1.08	2.83	2.89
1880.0	1.07	2.85	2.92
1890.0	1.06	2.87	2.94
1900.0	1.06	2.89	2.96
1930.0	1.05	2.93	3.00
1935.0	1.05	2.94	3.00
1940.0	1.05	2.95	3.01
1945.0	1.05	2.96	3.02
1950.0	1.04	2.97	3.02
1955.0	1.04	2.99	3.04
1960.0	1.04	3.00	3.04
1965.0	1.03	3.01	3.05
1970.0	1.03	3.03	3.06
1975.0	1.02	3.05	3.07
1980.0	1.02	3.07	3.08
1985.0	1.01	3.09	3.08
1990.0	1.01	3.10	3.09
2000.0	1.00	3.12	3.10
2010.0	1.01	3.13	3.10
2020.0	1.01	3.13	3.09
2030.0	1.01	3.13	3.08
2040.0	1.01	3.13	3.07
2050.0	1.01	3.12	3.06
2060.0	1.01	3.12	3.06
2070.0	1.02	3.13	3.06
2080.0	1.03	3.14	3.07
2090.0	1.04	3.16	3.09
2100.0	1.04	3.17	3.10
2110.0	1.05	3.18	3.12
2120.0	1.05	3.18	3.13
2130.0	1.06	3.17	3.14
2140.0	1.06	3.15	3.14
2150.0	1.05	3.13	3.14

[1]Total Loss = Insertion Loss + 3dB Splitter Loss

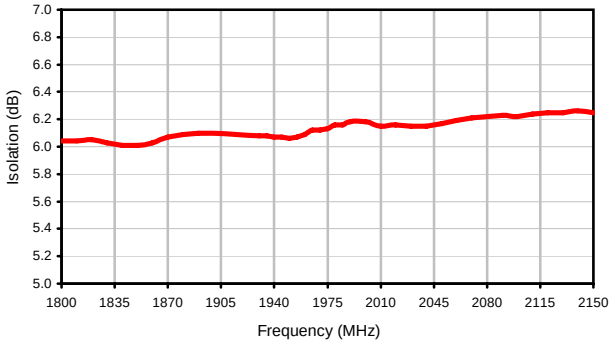
2 Way-0° Power Splitter/Combiner RACK-2-ED9940A/8

Typical Performance Curves

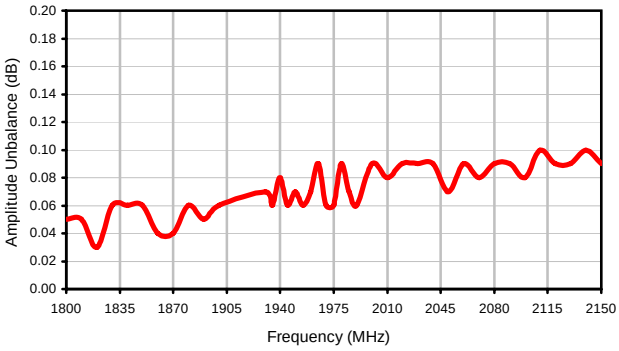
Total Loss



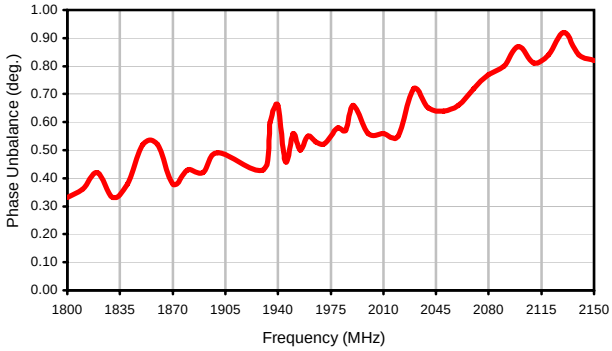
Isolation



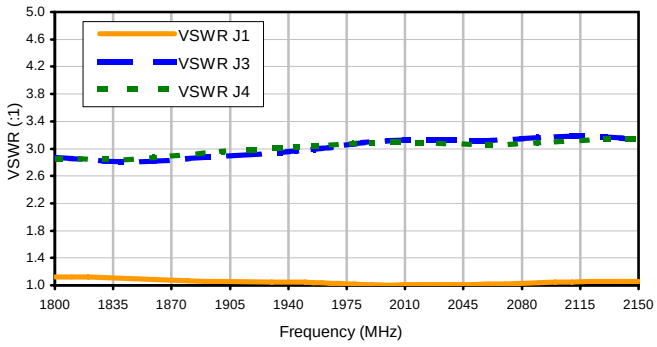
Amplitude Unbalance



Phase Unbalance



VSWR



Mini-Circuits

Environmental Specifications ENV42

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	-5° to 85° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-40° to 85° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
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	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I

This document and its contents are the property of Mini-Circuits.