

Engineering Development Model

Power Splitter/Combiner RACK-3-ED9920B/2

3 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 : 99-01-940

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		1800		2150 MHz
Isolation	1800 - 2150 MHz		10	dB
Insertion Loss Above 4.8 dB	1800 - 2150 MHz		0.20	dB
Phase Unbalance	1800 - 2150 MHz		2.50	deg.
Amplitude Unbalance	1800 - 2150 MHz		0.08	dB
VSWR	SUM Port		1.14	(:1)
	OUT Ports		4.57	(:1)

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

PIN CONNECTIONS	
SUM PORT	J1, N-TYPE, JACK
PORT 1	J3, SMA, PLUG
PORT 2	J4, SMA, PLUG
PORT 3	J5, SMA, PLUG

Functional Diagram



3 Way-0° Power Splitter/Combiner

RACK-3-ED9920B/2

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)			AMP. UNBAL. (dB)	ISOLATION (dB)			PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)			
	J1-J3	J1-J4	J1-J5		J3-J4	J3-J5	J4-J5			J1	J3	J4	J5
1800.0	5.21	5.16	5.18	0.05	9.93	10.13	10.02	2.48	1800.0	1.32	4.79	4.70	4.79
1810.0	5.19	5.15	5.17	0.04	9.99	10.19	10.08	2.50	1810.0	1.31	4.75	4.70	4.80
1820.0	5.18	5.15	5.16	0.03	10.05	10.24	10.15	2.52	1820.0	1.30	4.74	4.73	4.84
1830.0	5.16	5.14	5.15	0.02	10.11	10.29	10.21	2.51	1830.0	1.29	4.75	4.77	4.90
1840.0	5.15	5.13	5.14	0.02	10.16	10.34	10.26	2.53	1840.0	1.28	4.78	4.82	4.96
1850.0	5.13	5.12	5.12	0.01	10.20	10.38	10.30	2.54	1850.0	1.26	4.83	4.86	4.99
1860.0	5.11	5.11	5.10	0.01	10.24	10.41	10.34	2.54	1860.0	1.25	4.87	4.89	5.00
1870.0	5.09	5.09	5.09	0.00	10.26	10.43	10.37	2.55	1870.0	1.24	4.90	4.89	4.97
1880.0	5.06	5.07	5.06	0.01	10.28	10.44	10.39	2.55	1880.0	1.23	4.90	4.86	4.92
1890.0	5.03	5.05	5.04	0.02	10.29	10.45	10.40	2.56	1890.0	1.22	4.86	4.82	4.85
1900.0	5.00	5.03	5.01	0.02	10.30	10.44	10.41	2.57	1900.0	1.21	4.79	4.77	4.79
1930.0	4.93	4.97	4.95	0.04	10.30	10.44	10.41	2.57	1930.0	1.17	4.59	4.67	4.71
1935.0	4.92	4.97	4.95	0.04	10.30	10.43	10.41	2.57	1935.0	1.16	4.56	4.66	4.71
1940.0	4.92	4.96	4.94	0.05	10.30	10.42	10.41	2.56	1940.0	1.16	4.55	4.65	4.70
1945.0	4.91	4.96	4.94	0.05	10.29	10.42	10.41	2.56	1945.0	1.15	4.53	4.64	4.69
1950.0	4.91	4.96	4.94	0.05	10.29	10.42	10.41	2.55	1950.0	1.14	4.52	4.62	4.67
1955.0	4.91	4.96	4.94	0.06	10.29	10.41	10.41	2.55	1955.0	1.14	4.51	4.61	4.65
1960.0	4.90	4.96	4.94	0.06	10.28	10.40	10.40	2.55	1960.0	1.13	4.50	4.59	4.63
1965.0	4.90	4.96	4.94	0.06	10.28	10.39	10.39	2.54	1965.0	1.12	4.50	4.57	4.60
1970.0	4.90	4.96	4.93	0.06	10.27	10.38	10.39	2.56	1970.0	1.12	4.50	4.56	4.57
1975.0	4.89	4.96	4.93	0.07	10.25	10.36	10.37	2.55	1975.0	1.11	4.49	4.55	4.54
1980.0	4.89	4.96	4.93	0.07	10.24	10.34	10.36	2.54	1980.0	1.11	4.49	4.54	4.52
1985.0	4.88	4.96	4.92	0.07	10.22	10.32	10.34	2.54	1985.0	1.10	4.49	4.53	4.49
1990.0	4.88	4.95	4.92	0.08	10.18	10.27	10.30	2.53	1990.0	1.10	4.48	4.52	4.48
2000.0	4.86	4.94	4.90	0.08	10.17	10.26	10.29	2.53	2000.0	1.09	4.46	4.51	4.45
2010.0	4.84	4.93	4.89	0.09	10.12	10.20	10.24	2.53	2010.0	1.07	4.43	4.51	4.44
2020.0	4.83	4.92	4.88	0.09	10.06	10.13	10.18	2.52	2020.0	1.06	4.38	4.49	4.44
2030.0	4.81	4.91	4.86	0.10	10.00	10.07	10.13	2.52	2030.0	1.05	4.34	4.47	4.43
2040.0	4.80	4.91	4.85	0.10	9.94	9.99	10.06	2.50	2040.0	1.05	4.30	4.45	4.42
2050.0	4.79	4.90	4.85	0.11	9.88	9.92	10.00	2.49	2050.0	1.04	4.29	4.44	4.41
2060.0	4.80	4.91	4.85	0.11	9.82	9.85	9.94	2.48	2060.0	1.03	4.29	4.43	4.39
2070.0	4.80	4.92	4.86	0.12	9.75	9.78	9.88	2.47	2070.0	1.03	4.31	4.42	4.36
2080.0	4.81	4.93	4.87	0.12	9.69	9.70	9.81	2.46	2080.0	1.03	4.32	4.41	4.32
2090.0	4.82	4.95	4.88	0.13	9.62	9.62	9.74	2.44	2090.0	1.04	4.31	4.39	4.28
2100.0	4.82	4.95	4.88	0.13	9.54	9.53	9.66	2.44	2100.0	1.05	4.28	4.37	4.24
2110.0	4.82	4.96	4.88	0.14	9.46	9.44	9.58	2.43	2110.0	1.05	4.23	4.35	4.21
2120.0	4.82	4.97	4.88	0.14	9.38	9.35	9.50	2.42	2120.0	1.06	4.18	4.34	4.19
2130.0	4.82	4.97	4.88	0.15	9.29	9.25	9.41	2.41	2130.0	1.07	4.14	4.32	4.18
2140.0	4.82	4.98	4.88	0.15	9.20	9.14	9.32	2.41	2140.0	1.09	4.10	4.32	4.18
2150.0	4.82	4.98	4.88	0.16	9.11	9.04	9.23	2.39	2150.0	1.10	4.09	4.31	4.16

¹Total Loss = Insertion Loss + 4.8dB Splitter Loss



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site
The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS



REV. X2
RACK-3-ED9920B/2

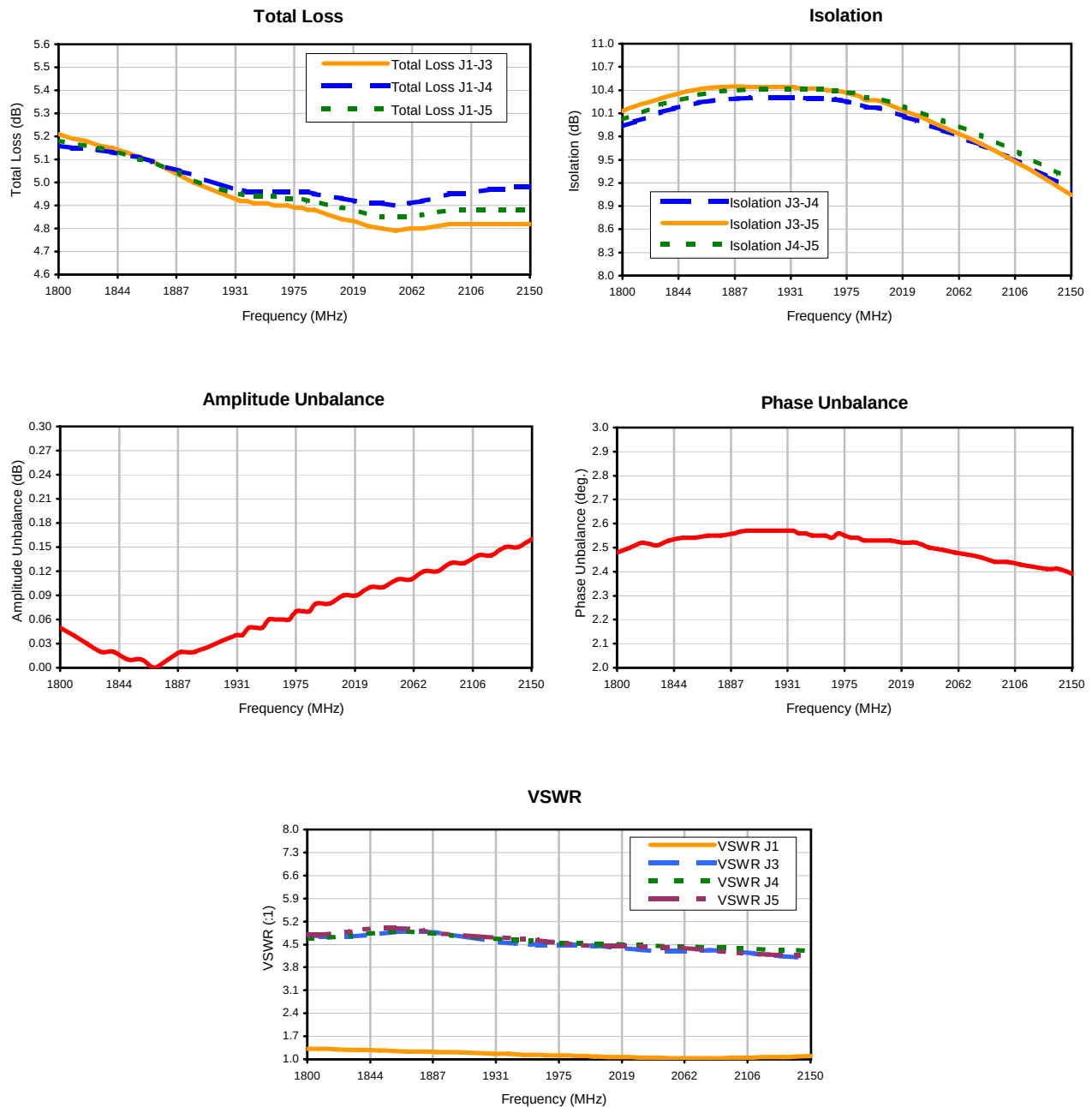
9/1/2010

Page 1 of 1

3 Way-0° Power Splitter/Combiner

RACK-3-ED9920B/2

Typical Performance Curves



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site
The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS

REV. X2
RACK-3-ED9920B/2
9/1/2010
Page 1 of 1



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