

Engineering Development Model

Power Splitter/Combiner

4 Way-0°

RACK-4-ED12629/1



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 : 99-01-1207

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		680		1080 MHz
Isolation	680 - 1080 MHz		22	dB
Insertion Loss Above 6.0 dB	680 - 1080 MHz		0.30	dB
Phase Unbalance	680 - 1080 MHz		1.033	deg.
Amplitude Unbalance	680 - 1080 MHz		0.046	dB
VSWR	SUM Port		1.15	(:1)
	OUT Ports		1.15	(:1)

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

Functional Diagram



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Typical Performance Data

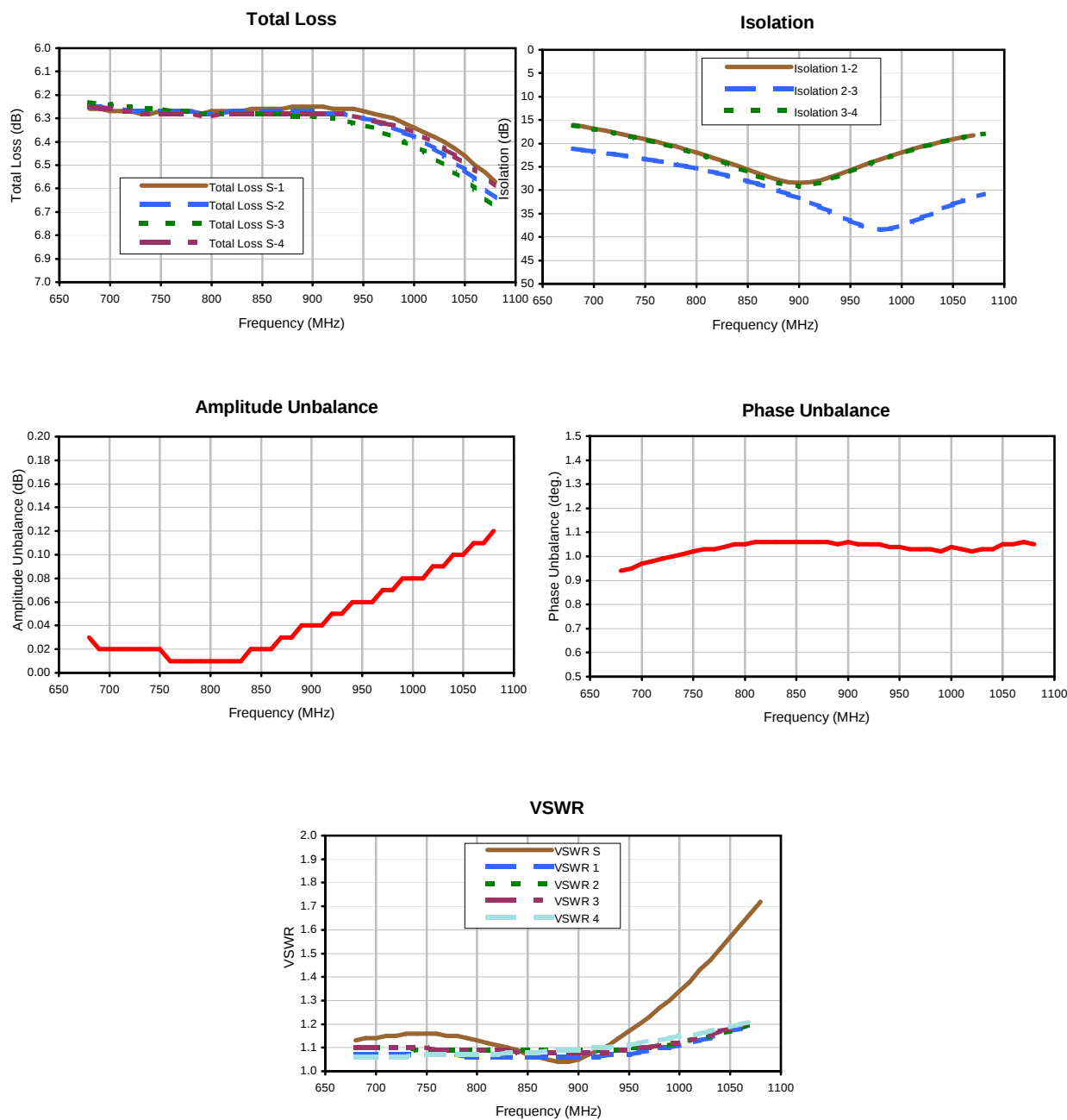
FREQ. (MHz)	TOTAL LOSS ¹ (dB)				AMP. UNBAL. (dB)	ISOLATION (dB)			PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)				
	S-1	S-2	S-3	S-4		1-2	2-3	3-4			S	1	2	3	4
680.0	6.26	6.25	6.23	6.25	0.03	16.07	21.16	16.19	0.94	680.0	1.13	1.07	1.10	1.10	1.06
690.0	6.26	6.25	6.24	6.26	0.02	16.45	21.44	16.57	0.95	690.0	1.14	1.07	1.10	1.10	1.06
700.0	6.27	6.26	6.24	6.26	0.02	16.85	21.73	16.97	0.97	700.0	1.14	1.07	1.10	1.10	1.06
710.0	6.27	6.26	6.25	6.27	0.02	17.26	22.02	17.39	0.98	710.0	1.15	1.07	1.10	1.10	1.06
720.0	6.27	6.27	6.25	6.27	0.02	17.68	22.33	17.82	0.99	720.0	1.15	1.07	1.10	1.10	1.06
730.0	6.28	6.27	6.26	6.28	0.02	18.12	22.66	18.27	1.00	730.0	1.16	1.07	1.10	1.10	1.06
740.0	6.28	6.27	6.26	6.28	0.02	18.58	22.99	18.74	1.01	740.0	1.16	1.07	1.09	1.10	1.07
750.0	6.27	6.27	6.26	6.28	0.02	19.07	23.35	19.24	1.02	750.0	1.16	1.07	1.09	1.10	1.07
760.0	6.28	6.27	6.27	6.28	0.01	19.58	23.72	19.76	1.03	760.0	1.16	1.07	1.09	1.09	1.07
770.0	6.27	6.27	6.27	6.28	0.01	20.12	24.11	20.31	1.03	770.0	1.15	1.07	1.09	1.09	1.07
780.0	6.27	6.27	6.27	6.28	0.01	20.69	24.52	20.90	1.04	780.0	1.15	1.07	1.09	1.09	1.07
790.0	6.28	6.28	6.28	6.29	0.01	21.29	24.94	21.52	1.05	790.0	1.14	1.06	1.09	1.09	1.07
800.0	6.27	6.28	6.28	6.29	0.01	21.93	25.38	22.19	1.05	800.0	1.13	1.06	1.09	1.09	1.07
810.0	6.27	6.28	6.28	6.28	0.01	22.60	25.85	22.89	1.06	810.0	1.12	1.06	1.09	1.09	1.07
820.0	6.27	6.27	6.28	6.28	0.01	23.31	26.34	23.63	1.06	820.0	1.11	1.06	1.09	1.09	1.07
830.0	6.27	6.27	6.28	6.28	0.01	24.05	26.87	24.42	1.06	830.0	1.10	1.06	1.09	1.09	1.08
840.0	6.26	6.27	6.28	6.28	0.02	24.82	27.43	25.24	1.06	840.0	1.09	1.06	1.09	1.08	1.08
850.0	6.26	6.27	6.28	6.28	0.02	25.62	28.03	26.09	1.06	850.0	1.07	1.06	1.09	1.08	1.08
860.0	6.26	6.27	6.28	6.28	0.02	26.41	28.67	26.95	1.06	860.0	1.06	1.06	1.09	1.08	1.08
870.0	6.26	6.27	6.28	6.28	0.03	27.16	29.35	27.77	1.06	870.0	1.05	1.06	1.09	1.08	1.09
880.0	6.25	6.27	6.29	6.28	0.03	27.79	30.07	28.47	1.06	880.0	1.04	1.06	1.09	1.08	1.09
890.0	6.25	6.27	6.29	6.28	0.04	28.25	30.85	28.95	1.05	890.0	1.04	1.06	1.09	1.08	1.09
900.0	6.25	6.27	6.29	6.28	0.04	28.42	31.67	29.13	1.06	900.0	1.05	1.06	1.09	1.08	1.09
910.0	6.25	6.28	6.30	6.28	0.04	28.30	32.57	28.94	1.05	910.0	1.07	1.06	1.09	1.08	1.10
920.0	6.26	6.28	6.30	6.28	0.05	27.90	33.51	28.45	1.05	920.0	1.09	1.06	1.09	1.08	1.10
930.0	6.26	6.28	6.31	6.28	0.05	27.28	34.51	27.73	1.05	930.0	1.11	1.07	1.09	1.08	1.10
940.0	6.26	6.29	6.32	6.29	0.06	26.53	35.57	26.89	1.04	940.0	1.14	1.07	1.09	1.09	1.11
950.0	6.27	6.30	6.33	6.30	0.06	25.72	36.60	26.01	1.04	950.0	1.17	1.07	1.10	1.09	1.11
960.0	6.28	6.31	6.34	6.31	0.06	24.90	37.51	25.13	1.03	960.0	1.20	1.08	1.10	1.10	1.12
970.0	6.29	6.33	6.36	6.32	0.07	24.10	38.19	24.28	1.03	970.0	1.23	1.09	1.10	1.10	1.13
980.0	6.30	6.34	6.38	6.33	0.07	23.33	38.45	23.48	1.03	980.0	1.27	1.10	1.11	1.11	1.13
990.0	6.32	6.36	6.40	6.34	0.08	22.60	38.25	22.73	1.02	990.0	1.30	1.10	1.11	1.12	1.14
1000.0	6.34	6.38	6.42	6.36	0.08	21.91	37.66	22.03	1.04	1000.0	1.34	1.11	1.12	1.12	1.15
1010.0	6.36	6.40	6.44	6.38	0.08	21.28	36.83	21.37	1.03	1010.0	1.38	1.12	1.13	1.13	1.15
1020.0	6.38	6.43	6.47	6.40	0.09	20.68	35.87	20.77	1.02	1020.0	1.43	1.13	1.14	1.14	1.16
1030.0	6.40	6.46	6.50	6.43	0.09	20.12	34.90	20.20	1.03	1030.0	1.47	1.14	1.15	1.15	1.17
1040.0	6.43	6.49	6.53	6.46	0.10	19.60	33.94	19.67	1.03	1040.0	1.52	1.16	1.16	1.17	1.18
1050.0	6.46	6.52	6.56	6.49	0.10	19.11	33.05	19.18	1.05	1050.0	1.57	1.17	1.17	1.18	1.19
1060.0	6.50	6.56	6.60	6.52	0.11	18.66	32.21	18.72	1.05	1060.0	1.62	1.18	1.18	1.19	1.20
1070.0	6.53	6.60	6.64	6.55	0.11	18.23	31.43	18.30	1.06	1070.0	1.67	1.20	1.20	1.21	1.21
1080.0	6.57	6.64	6.68	6.59	0.12	17.84	30.72	17.90	1.05	1080.0	1.72	1.21	1.21	1.22	1.22

¹Total Loss = Insertion Loss + 6dB Splitter Loss

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Typical Performance Curves



REV. X2
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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