

2 Way-90° Power Splitter/Combiner

SCPQ-21.4

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. From 90° (deg.)	ISOLATION (dB) 1-2	VSWR (:1)		
	S-1	S-2				S	1	2
10.0	7.58	0.91	6.67	0.36	31.21	1.04	1.03	1.04
11.0	6.92	1.07	5.85	0.43	30.62	1.04	1.03	1.05
12.0	6.33	1.25	5.09	0.45	30.11	1.04	1.03	1.05
13.0	5.82	1.43	4.39	0.47	29.70	1.04	1.03	1.05
14.0	5.36	1.62	3.74	0.50	29.31	1.04	1.04	1.06
15.0	4.96	1.81	3.15	0.52	28.99	1.04	1.04	1.06
16.0	4.59	2.01	2.58	0.54	28.71	1.04	1.04	1.07
17.0	4.26	2.21	2.06	0.60	28.46	1.05	1.04	1.07
18.0	3.97	2.41	1.55	0.64	28.25	1.05	1.04	1.07
18.5	3.83	2.51	1.32	0.64	28.15	1.05	1.04	1.08
19.0	3.70	2.62	1.08	0.66	28.06	1.05	1.04	1.08
19.5	3.58	2.72	0.86	0.67	27.96	1.05	1.04	1.08
20.0	3.46	2.82	0.64	0.71	27.91	1.05	1.04	1.08
20.5	3.35	2.93	0.42	0.71	27.83	1.05	1.04	1.08
21.0	3.24	3.03	0.20	0.73	27.78	1.05	1.04	1.09
21.5	3.14	3.13	0.00	0.74	27.71	1.05	1.04	1.09
22.0	3.04	3.24	0.20	0.77	27.65	1.05	1.04	1.09
22.5	2.95	3.34	0.39	0.77	27.60	1.05	1.04	1.09
23.0	2.86	3.45	0.59	0.80	27.55	1.05	1.04	1.09
23.5	2.77	3.55	0.78	0.82	27.51	1.05	1.04	1.10
24.0	2.69	3.65	0.96	0.83	27.46	1.05	1.04	1.10
24.5	2.62	3.76	1.14	0.83	27.44	1.05	1.04	1.10
25.0	2.54	3.86	1.32	0.86	27.39	1.05	1.04	1.10
25.5	2.47	3.96	1.49	0.88	27.38	1.05	1.04	1.10
26.0	2.41	4.06	1.66	0.91	27.34	1.05	1.04	1.10
26.5	2.34	4.17	1.83	0.92	27.31	1.04	1.04	1.11
27.0	2.27	4.27	1.99	0.95	27.28	1.04	1.03	1.11
27.5	2.22	4.37	2.15	0.96	27.27	1.04	1.03	1.11
28.0	2.16	4.47	2.31	0.98	27.25	1.04	1.03	1.11
28.5	2.10	4.57	2.46	1.00	27.23	1.04	1.03	1.11
29.0	2.05	4.67	2.62	1.01	27.20	1.04	1.03	1.12
29.5	2.00	4.77	2.77	1.01	27.21	1.04	1.03	1.12
30.0	1.95	4.87	2.91	1.05	27.18	1.04	1.03	1.12
31.0	1.86	5.06	3.20	1.08	27.19	1.04	1.03	1.12
32.0	1.77	5.26	3.49	1.10	27.14	1.04	1.03	1.13
33.0	1.69	5.45	3.76	1.15	27.15	1.04	1.03	1.13
34.0	1.62	5.64	4.02	1.20	27.11	1.04	1.03	1.14
35.0	1.55	5.83	4.28	1.25	27.11	1.04	1.03	1.14
36.0	1.48	6.01	4.53	1.29	27.11	1.04	1.03	1.14
37.0	1.42	6.20	4.78	1.34	27.12	1.04	1.03	1.15
38.0	1.37	6.38	5.01	1.37	27.11	1.04	1.03	1.15
39.0	1.32	6.56	5.24	1.42	27.11	1.04	1.03	1.15
40.0	1.27	6.73	5.46	1.46	27.13	1.04	1.03	1.16

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss

REV. X2
SCPQ-21.4
110302
Page 1 of 3



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Mini-Circuits®



2 Way-90° Power Splitter/Combiner

SCPQ-21.4

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = -40°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. From 90° (deg.)	ISOLATION (dB) 1-2	VSWR (:1)		
	S-1	S-2				S	1	2
10.0	7.64	0.89	6.75	0.59	30.46	1.04	1.04	1.05
11.0	6.98	1.05	5.92	0.66	29.87	1.05	1.05	1.05
12.0	6.39	1.23	5.17	0.71	29.35	1.05	1.05	1.06
13.0	5.88	1.41	4.47	0.74	28.94	1.05	1.05	1.06
14.0	5.42	1.60	3.82	0.77	28.54	1.05	1.05	1.07
15.0	5.02	1.79	3.22	0.83	28.22	1.05	1.05	1.07
16.0	4.65	1.99	2.66	0.86	27.94	1.05	1.05	1.07
17.0	4.32	2.19	2.13	0.94	27.68	1.05	1.05	1.08
18.0	4.02	2.39	1.63	0.99	27.46	1.06	1.05	1.08
18.5	3.88	2.49	1.39	1.01	27.36	1.06	1.05	1.08
19.0	3.76	2.59	1.17	1.05	27.28	1.06	1.05	1.09
19.5	3.63	2.70	0.94	1.07	27.18	1.06	1.05	1.09
20.0	3.51	2.80	0.72	1.10	27.12	1.06	1.05	1.09
20.5	3.40	2.90	0.50	1.11	27.04	1.06	1.05	1.09
21.0	3.30	3.00	0.29	1.15	26.98	1.06	1.05	1.09
21.5	3.19	3.11	0.09	1.17	26.91	1.06	1.05	1.10
22.0	3.10	3.21	0.11	1.21	26.86	1.06	1.05	1.10
22.5	3.00	3.31	0.31	1.23	26.80	1.06	1.05	1.10
23.0	2.92	3.41	0.50	1.25	26.75	1.06	1.05	1.10
23.5	2.83	3.52	0.69	1.29	26.71	1.06	1.05	1.10
24.0	2.75	3.62	0.88	1.30	26.66	1.06	1.05	1.10
24.5	2.67	3.72	1.06	1.32	26.63	1.06	1.05	1.11
25.0	2.59	3.83	1.24	1.34	26.58	1.06	1.05	1.11
25.5	2.52	3.93	1.40	1.39	26.56	1.06	1.05	1.11
26.0	2.46	4.03	1.57	1.40	26.53	1.06	1.05	1.11
26.5	2.39	4.13	1.74	1.44	26.49	1.06	1.05	1.11
27.0	2.32	4.23	1.91	1.47	26.46	1.06	1.05	1.11
27.5	2.27	4.33	2.06	1.48	26.45	1.06	1.05	1.12
28.0	2.21	4.43	2.22	1.52	26.43	1.06	1.05	1.12
28.5	2.15	4.53	2.38	1.55	26.40	1.06	1.05	1.12
29.0	2.10	4.63	2.53	1.57	26.38	1.06	1.04	1.12
29.5	2.05	4.73	2.68	1.58	26.39	1.06	1.04	1.12
30.0	1.99	4.82	2.83	1.62	26.35	1.06	1.04	1.13
31.0	1.90	5.02	3.12	1.64	26.35	1.06	1.04	1.13
32.0	1.82	5.21	3.40	1.70	26.30	1.06	1.04	1.13
33.0	1.74	5.40	3.66	1.76	26.31	1.06	1.04	1.14
34.0	1.66	5.59	3.93	1.83	26.28	1.06	1.04	1.14
35.0	1.60	5.77	4.18	1.88	26.27	1.06	1.04	1.14
36.0	1.53	5.96	4.43	1.94	26.27	1.06	1.04	1.15
37.0	1.47	6.14	4.67	2.01	26.27	1.06	1.04	1.15
38.0	1.42	6.32	4.90	2.05	26.27	1.06	1.04	1.15
39.0	1.36	6.49	5.12	2.11	26.26	1.06	1.04	1.16
40.0	1.31	6.67	5.36	2.16	26.28	1.06	1.03	1.16

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss

REV. X2
SCPQ-21.4
110302
Page 2 of 3



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2 Way-90° Power Splitter/Combiner

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Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +85°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. From 90° (deg.)	ISOLATION (dB) 1-2	VSWR (:1)		
	S-1	S-2				S	1	2
10.0	7.52	0.91	6.61	0.25	32.03	1.03	1.02	1.03
11.0	6.86	1.07	5.78	0.28	31.44	1.03	1.02	1.04
12.0	6.27	1.25	5.02	0.31	30.91	1.03	1.02	1.04
13.0	5.76	1.44	4.32	0.30	30.49	1.03	1.02	1.05
14.0	5.31	1.62	3.69	0.31	30.09	1.04	1.02	1.05
15.0	4.90	1.82	3.08	0.33	29.77	1.04	1.02	1.05
16.0	4.54	2.02	2.52	0.35	29.48	1.04	1.02	1.06
17.0	4.21	2.22	1.99	0.37	29.21	1.04	1.02	1.06
18.0	3.92	2.43	1.49	0.40	29.00	1.04	1.02	1.07
18.5	3.78	2.53	1.25	0.41	28.89	1.04	1.02	1.07
19.0	3.65	2.63	1.02	0.43	28.80	1.04	1.03	1.07
19.5	3.53	2.74	0.78	0.42	28.70	1.04	1.03	1.07
20.0	3.41	2.84	0.57	0.46	28.63	1.04	1.03	1.07
20.5	3.30	2.95	0.35	0.47	28.56	1.04	1.03	1.08
21.0	3.19	3.05	0.13	0.48	28.50	1.04	1.03	1.08
21.5	3.09	3.16	0.07	0.48	28.42	1.04	1.03	1.08
22.0	2.99	3.26	0.27	0.51	28.38	1.04	1.03	1.08
22.5	2.90	3.37	0.46	0.51	28.31	1.04	1.03	1.08
23.0	2.82	3.47	0.66	0.53	28.26	1.04	1.03	1.09
23.5	2.73	3.58	0.85	0.54	28.22	1.04	1.03	1.09
24.0	2.65	3.68	1.03	0.54	28.16	1.04	1.03	1.09
24.5	2.57	3.78	1.21	0.55	28.13	1.04	1.03	1.09
25.0	2.50	3.89	1.39	0.56	28.08	1.04	1.03	1.09
25.5	2.42	3.99	1.57	0.59	28.06	1.04	1.03	1.10
26.0	2.36	4.09	1.74	0.59	28.03	1.04	1.03	1.10
26.5	2.29	4.20	1.91	0.64	27.99	1.04	1.03	1.10
27.0	2.23	4.30	2.06	0.62	27.95	1.04	1.03	1.10
27.5	2.17	4.40	2.23	0.62	27.94	1.04	1.03	1.11
28.0	2.11	4.50	2.39	0.67	27.92	1.04	1.03	1.11
28.5	2.06	4.61	2.55	0.67	27.89	1.04	1.03	1.11
29.0	2.01	4.70	2.70	0.68	27.86	1.04	1.03	1.11
29.5	1.96	4.81	2.85	0.69	27.87	1.04	1.03	1.11
30.0	1.90	4.91	3.00	0.71	27.83	1.04	1.03	1.12
31.0	1.82	5.10	3.28	0.73	27.83	1.04	1.03	1.12
32.0	1.73	5.30	3.57	0.75	27.77	1.04	1.03	1.12
33.0	1.65	5.49	3.84	0.79	27.78	1.04	1.03	1.13
34.0	1.58	5.68	4.10	0.82	27.74	1.04	1.03	1.13
35.0	1.51	5.87	4.36	0.86	27.74	1.03	1.04	1.14
36.0	1.44	6.06	4.61	0.90	27.72	1.03	1.04	1.14
37.0	1.39	6.24	4.85	0.93	27.72	1.03	1.04	1.14
38.0	1.34	6.43	5.09	0.96	27.70	1.03	1.04	1.15
39.0	1.29	6.61	5.32	1.01	27.69	1.03	1.04	1.15
40.0	1.24	6.79	5.55	1.05	27.70	1.03	1.04	1.16

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss

REV. X2
SCPQ-21.4
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Page 3 of 3



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