

SCPQ-10.5+ SCPQ-10.5

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

Permanent damage may occur if any of these limits are exceeded.

SUM PORT	1
PORT 1 (+90°)	2
PORT 2 (0°)	5
GROUND	3,4,7,8
50 OHM TERM EXTERNAL	6

A	B	C	D	E	F	G
.75	.38	.20	.010	.050	.020	.200
19.05	9.65	5.08	0.25	1.27	0.51	5.08
H	J	K	M	N	P	wt
.075	.600	.450	.470	.100	.150	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.6

FIGURE 1

NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS $.030" \pm .002"$. COPPER: $1/2$ OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
 - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

- low insertion loss, 0.15 dB typ.
- high isolation, 31 dB typ.

- HF
- signal processing
- balanced amplifier
- modulators

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min.	Typ. Max.	Max.	Max.
9-11	31 20	0.15 0.7	3	1.2

Frequency (MHz)	Total Loss¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
9.00	3.47	2.68	0.79	32.47	90.02	1.03	1.03	1.03
9.10	3.42	2.72	0.70	32.46	90.02	1.03	1.03	1.03
9.25	3.34	2.79	0.56	32.47	90.02	1.03	1.03	1.03
9.40	3.27	2.85	0.42	32.46	90.02	1.03	1.03	1.03
9.55	3.20	2.92	0.28	32.48	90.01	1.03	1.03	1.03
9.70	3.14	2.99	0.15	32.48	90.02	1.03	1.03	1.03
9.85	3.07	3.05	0.02	32.50	90.02	1.03	1.03	1.04
10.00	3.01	3.12	0.11	32.51	90.01	1.03	1.03	1.04
10.15	2.95	3.19	0.23	32.52	90.01	1.03	1.03	1.04
10.30	2.89	3.25	0.36	32.54	90.02	1.03	1.03	1.04
10.45	2.83	3.32	0.48	32.55	90.02	1.03	1.03	1.04
10.60	2.78	3.38	0.60	32.58	90.02	1.03	1.03	1.04
10.75	2.72	3.45	0.72	32.61	90.02	1.03	1.03	1.04
10.90	2.67	3.51	0.84	32.62	90.02	1.03	1.03	1.04
11.00	2.64	3.55	0.92	32.65	90.03	1.03	1.03	1.04

The graph shows the total loss for two different configurations, S-1 and S-2, across a frequency range from 9 MHz to 11 MHz. The y-axis represents the total loss in dB, ranging from 2.0 to 4.5. The x-axis represents the frequency in MHz, with labels at 9, 9, 10, 10, 11, and 11. S-1 is represented by a solid red line, and S-2 is represented by a dashed blue line. S-1 starts at approximately 3.5 dB at 9 MHz and decreases to about 2.6 dB at 11 MHz. S-2 starts at approximately 2.7 dB at 9 MHz and increases to about 3.5 dB at 11 MHz. The two lines intersect at a frequency of 10 MHz, where the total loss is approximately 3.0 dB.

Frequency (MHz)	S-1 (dB)	S-2 (dB)
9	3.5	2.7
10	3.0	3.0
11	2.6	3.5

SCPQ-10.5
ISOLATION

FREQUENCY (MHz)	ISOLATION (dB)
9.0	32.5
9.5	32.5
10.0	32.5
10.5	32.6
11.0	32.7

For detailed performance specs
& shopping online see web site

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HY/TD/CP/AM
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Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' reasonable engineering judgment and are subject to change without notice. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"). Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MC/Store/terms_iso.