

Surface Mount Power Splitter/Combiner

SCP-4-1W+ SCP-4-1W

4 Way-0° 50Ω

10 to 650 MHz



Maximum Ratings

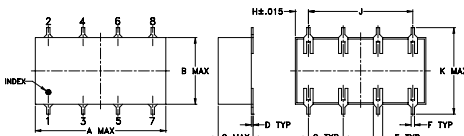
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.25W max.

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

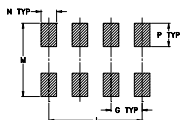
Pin Connections

SUM PORT	3
PORT 1	2
PORT 2	4
PORT 3	6
PORT 4	8
GROUND	1,5,7

Outline Drawing



PCB Land Pattern

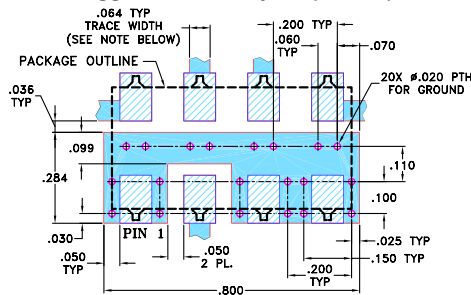


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

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

Demo Board MCL P/N: TB-36 Suggested PCB Layout (PL-073)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R043508 WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- wideband, 10 to 650 MHz
- excellent amplitude unbalance, 0.4 dB typ.

Applications

- VHF/UHF
- receivers/transmitters
- federal and defense communication

CASE STYLE: YY101
PRICE: \$26.95 ea. QTY (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

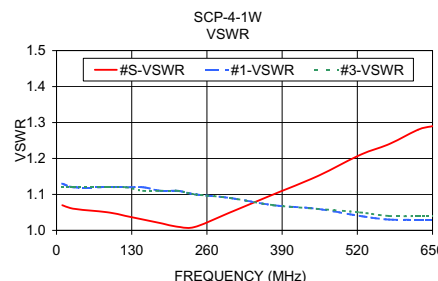
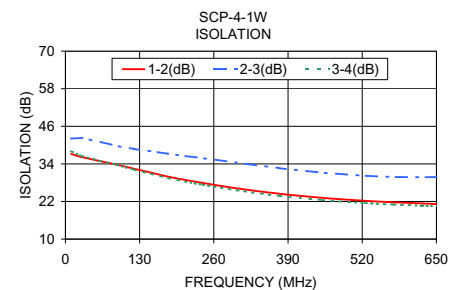
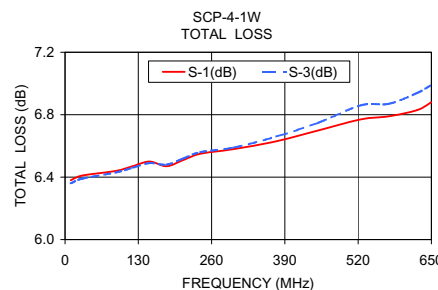
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 6 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
f _L -f _U	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.						
10-650	34	28	23	18	21	15	0.7	1.0	0.9	1.5	1.1	1.9	3	7	12	0.2	0.4	0.7

L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
10.00	6.38	6.36	6.36	6.36	0.02	37.18	42.07	38.05	0.07	1.07	1.13	1.13	1.12	1.12
30.00	6.41	6.39	6.39	6.38	0.02	36.10	42.30	36.46	0.12	1.06	1.12	1.12	1.12	1.12
90.00	6.44	6.43	6.43	6.42	0.02	33.76	39.74	33.67	0.43	1.05	1.12	1.12	1.12	1.12
120.00	6.47	6.46	6.46	6.44	0.03	32.46	38.76	32.19	0.58	1.04	1.12	1.12	1.12	1.12
150.00	6.50	6.49	6.49	6.47	0.03	31.21	38.02	30.82	0.70	1.03	1.12	1.12	1.11	1.12
180.00	6.47	6.47	6.48	6.45	0.03	29.92	37.23	29.49	0.85	1.02	1.11	1.11	1.11	1.11
210.00	6.51	6.52	6.52	6.49	0.04	28.87	36.52	28.36	0.95	1.01	1.11	1.11	1.11	1.11
240.00	6.55	6.56	6.56	6.52	0.04	27.96	35.86	27.40	1.10	1.01	1.10	1.11	1.10	1.10
300.00	6.58	6.59	6.59	6.54	0.05	26.21	34.39	25.59	1.33	1.05	1.09	1.09	1.09	1.09
375.00	6.63	6.65	6.66	6.58	0.08	24.48	32.64	23.81	1.69	1.10	1.07	1.08	1.07	1.08
450.00	6.70	6.75	6.75	6.63	0.12	23.16	31.19	22.46	1.94	1.15	1.06	1.07	1.06	1.06
525.00	6.77	6.86	6.86	6.70	0.15	22.23	30.20	21.51	2.32	1.21	1.04	1.05	1.05	1.04
575.00	6.79	6.88	6.87	6.69	0.19	21.76	29.83	21.04	2.45	1.24	1.03	1.05	1.04	1.04
625.00	6.83	6.95	6.94	6.73	0.22	21.37	29.74	20.65	2.66	1.28	1.03	1.05	1.04	1.03
650.00	6.88	7.01	6.99	6.77	0.25	21.19	29.79	20.47	2.73	1.29	1.03	1.05	1.04	1.03

1. Total Loss = Insertion Loss + 6dB splitter loss.



Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED
IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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