

Surface Mount Power Splitter/Combiner

4 Way-0° 50Ω

10 to 650 MHz

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



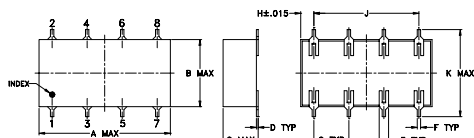
Maximum Ratings

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.

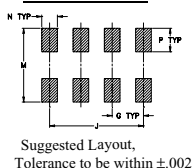
Pin Connections

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

Outline Drawing



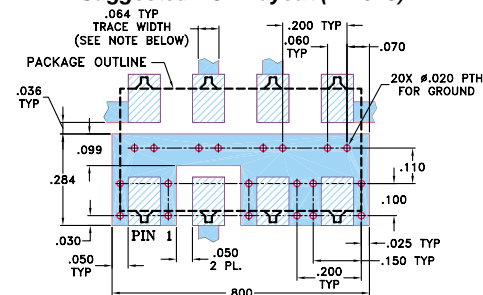
PCB Land Pattern



Outline Dimensions (inch)

A	B	C	D	E	F	G
.75	.38	.20	.10	.050	.020	.200
19.05	9.65	5.08	2.54	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 R04350B 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.

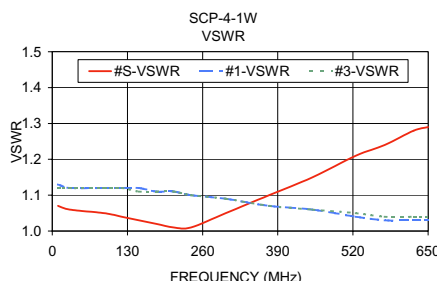
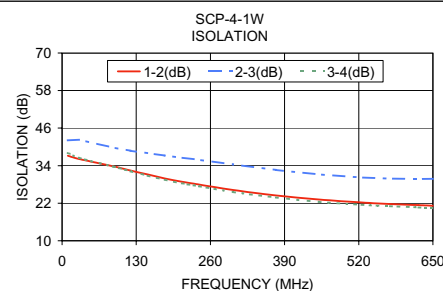
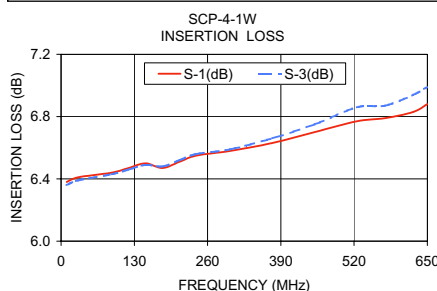
Electrical Specifications

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

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)	Insertion Loss (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR				
	S-1	S-2	S-3	S-4		1-2	2-3	3-4		S	1	2	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



Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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