Surface Mount

Power Splitter/Combiner

SCP-4-4+
SCP-4-4

4 Way-0° 50Ω 800 to 1000 MHz

CASE STYLE: YY101
PRICE: $21.95 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.

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

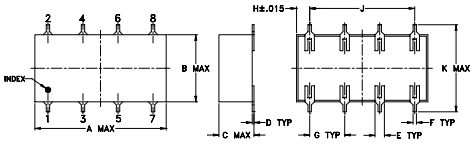
Features

- wideband, 800 to 1000 MHz
- good isolation, 24dB typ.

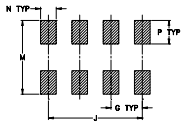
Applications

- cellular
- receivers/transmitters
- communication system

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

Electrical Specifications

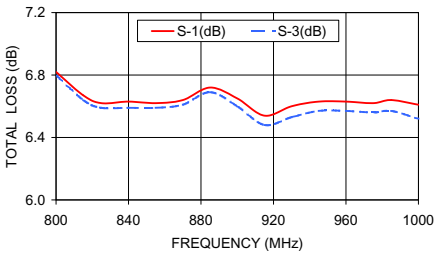
FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 6 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L-f_U	Typ. Min.	Typ. Max.	Max.	Max.
800-1000	24 17	0.7 1.5	12	1.0

Typical Performance Data

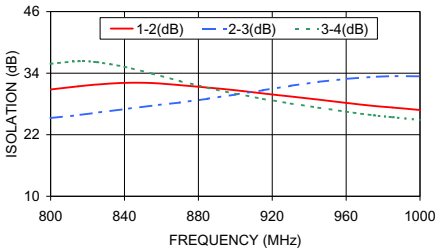
Freq. (MHz)	Total Loss[1] (dB) S-1	S-2	S-3	S-4	Amp. Unbal. (dB)	Isolation (dB) 1-2	2-3	3-4	Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
800.00	6.82	6.95	6.80	6.67	0.28	30.82	25.25	35.84	3.22	1.61	1.20	1.24	1.21	1.17
815.00	6.67	6.81	6.64	6.51	0.30	31.43	25.83	36.33	3.13	1.57	1.20	1.23	1.20	1.17
825.00	6.62	6.76	6.59	6.45	0.30	31.78	26.30	36.14	3.19	1.54	1.19	1.23	1.19	1.16
840.00	6.63	6.78	6.59	6.45	0.33	32.11	26.99	35.25	3.18	1.50	1.18	1.22	1.18	1.15
855.00	6.62	6.79	6.59	6.43	0.36	32.07	27.68	33.90	3.21	1.46	1.17	1.21	1.17	1.14
870.00	6.64	6.82	6.61	6.45	0.38	31.66	28.28	32.45	3.28	1.42	1.17	1.20	1.16	1.14
885.00	6.72	6.90	6.69	6.53	0.37	31.19	29.01	31.14	3.38	1.38	1.16	1.19	1.15	1.13
900.00	6.65	6.81	6.60	6.44	0.37	30.67	29.83	30.00	3.30	1.34	1.15	1.18	1.15	1.12
915.00	6.54	6.70	6.48	6.33	0.37	30.05	30.67	28.99	3.35	1.30	1.14	1.17	1.14	1.11
930.00	6.60	6.78	6.53	6.38	0.41	29.46	31.54	28.08	3.34	1.27	1.13	1.17	1.13	1.10
945.00	6.63	6.84	6.57	6.40	0.44	28.84	32.31	27.28	3.44	1.23	1.13	1.16	1.12	1.10
960.00	6.63	6.84	6.57	6.38	0.46	28.21	32.89	26.49	3.49	1.20	1.12	1.15	1.11	1.09
975.00	6.62	6.83	6.56	6.38	0.46	27.61	33.29	25.79	3.42	1.17	1.11	1.14	1.10	1.08
985.00	6.64	6.84	6.57	6.39	0.46	27.30	33.43	25.42	3.48	1.15	1.11	1.14	1.10	1.08
1000.00	6.61	6.81	6.52	6.35	0.45	26.82	33.39	24.88	3.49	1.12	1.10	1.13	1.09	1.07

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

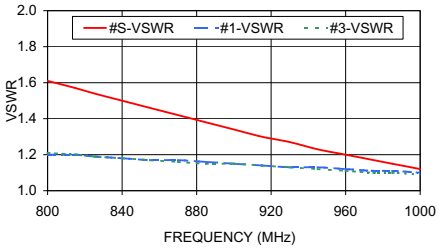
SCP-4-4
TOTAL LOSS



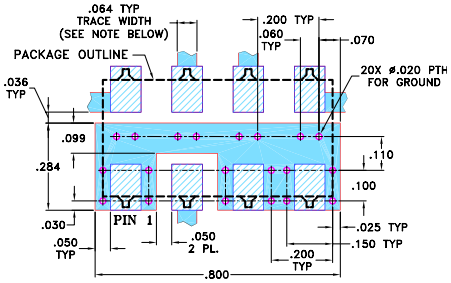
SCP-4-4
ISOLATION



SCP-4-4
VSWR

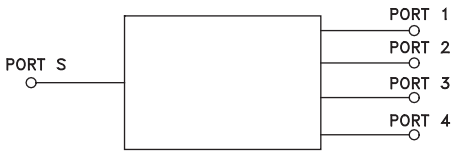


Demo Board MCL P/N: TB-36
Suggested PCB Layout (PL-073)



NOTES: 1.TRACE WIDTH IS SHOWN FOR ROGERS RO4350B 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.
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Electrical Schematic



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