

Surface Mount

Power Splitter/Combiner

2 Way-0° 50Ω

1 to 550 MHz

SCP-2-1A+ SCP-2-1A



CASE STYLE: YY101

PRICE: \$10.45 ea. QTY(10-49)

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 0.125W max.

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

Pin Connections

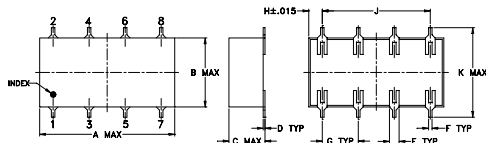
SUM PORT 1

PORT 1 5

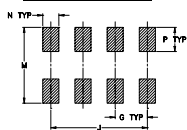
PORT 2 6

GROUND EXT. 2,3,4,7,8

Outline Drawing



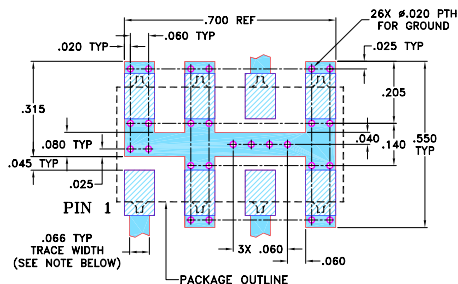
PCB Land Pattern

Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch)

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-50+ Suggested PCB Layout (PL-060)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030" ± .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, 1 to 550 MHz
- low insertion loss, 0.3 dB typ.
- good isolation, 25 dB typ.
- good amplitude unbalance, 0.05 dB typ.

Applications

- VHF/UHF
- communications receivers & transmitters
- instrumentation

+ 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

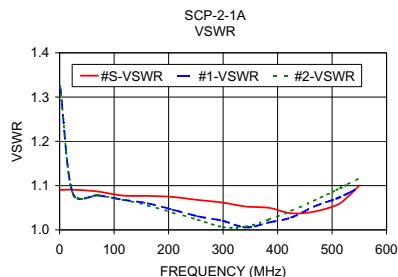
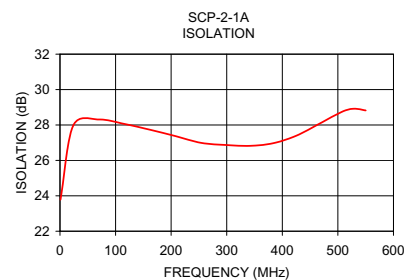
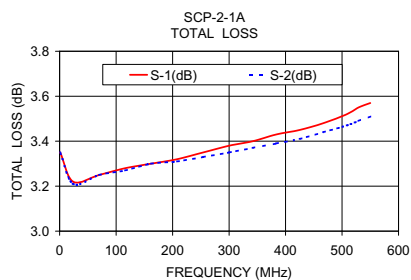
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 3.0 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.						
f _L -f _U	25	20	25	20	25	20	0.3	0.6	0.3	0.6	0.7	1.3	2.0	2.0	3.0	0.15	0.2	0.4

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

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1.00	3.35	3.35	0.00	23.78	0.02	1.09	1.32	1.32
24.00	3.22	3.21	0.00	27.98	0.00	1.09	1.08	1.08
70.00	3.25	3.25	0.00	28.31	0.05	1.09	1.08	1.08
116.00	3.28	3.27	0.01	28.06	0.07	1.08	1.07	1.07
162.00	3.30	3.30	0.01	27.73	0.11	1.08	1.06	1.05
208.00	3.32	3.31	0.01	27.37	0.14	1.07	1.05	1.04
254.00	3.35	3.33	0.02	26.99	0.16	1.07	1.03	1.02
300.00	3.38	3.35	0.02	26.87	0.17	1.06	1.02	1.01
341.67	3.40	3.37	0.03	26.82	0.19	1.05	1.01	1.01
383.33	3.43	3.39	0.03	26.97	0.19	1.05	1.02	1.02
425.00	3.45	3.41	0.04	27.39	0.20	1.04	1.03	1.04
466.67	3.48	3.44	0.05	28.07	0.21	1.04	1.05	1.07
508.33	3.52	3.47	0.05	28.76	0.18	1.06	1.07	1.09
529.17	3.55	3.49	0.06	28.92	0.17	1.08	1.08	1.10
550.00	3.57	3.51	0.06	28.82	0.18	1.10	1.10	1.12

1. Total Loss = Insertion Loss + 3dB splitter loss.



electrical schematic



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