

Surface Mount Power Splitter/Combiner

2 Way-0° 50Ω

0.1 to 400 MHz

SCP-2-1+
SCP-2-1



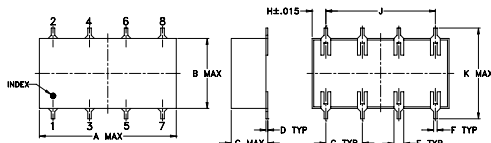
Maximum Ratings

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.	

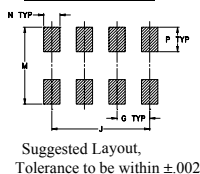
Pin Connections

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

Outline Drawing



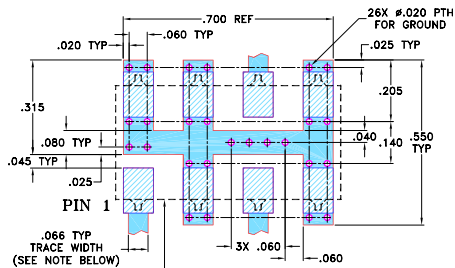
PCB Land Pattern



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 RO4350B 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, 0.1 to 400 MHz
- low insertion loss, 0.2 dB typ.
- good isolation, 30 dB typ.
- good amplitude unbalance, 0.05 dB typ.

Applications

- VHF/UHF
- instrumentation
- communication receivers & transmitters

CASE STYLE: YY101

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

+ 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

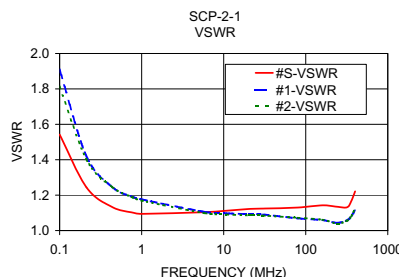
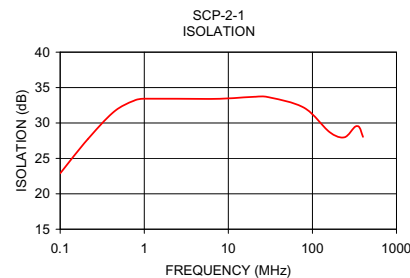
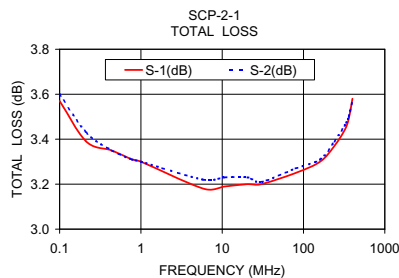
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
f _L -f _U	25	15	30	20	25	20	0.3	1.2	0.2	0.6	0.4	1.1	2.0	2.0	3.0	0.15	0.2	0.3

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) S-1	Total Loss ¹ (dB) S-2	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
0.10	3.57	3.60	0.03	22.88	0.28	1.54	1.91	1.81
0.21	3.39	3.43	0.03	27.70	0.11	1.24	1.42	1.40
0.44	3.35	3.35	0.01	31.60	0.08	1.13	1.25	1.25
0.78	3.31	3.31	0.01	33.21	0.09	1.10	1.19	1.19
1.00	3.30	3.30	0.01	33.43	0.06	1.09	1.18	1.17
5.88	3.18	3.22	0.04	33.40	0.20	1.10	1.11	1.10
10.75	3.19	3.23	0.04	33.49	0.18	1.11	1.10	1.09
20.50	3.20	3.23	0.04	33.70	0.03	1.12	1.09	1.09
30.25	3.20	3.21	0.01	33.64	0.11	1.12	1.09	1.08
80.00	3.25	3.27	0.02	32.14	0.02	1.13	1.07	1.07
160.00	3.30	3.31	0.02	28.71	0.12	1.14	1.06	1.06
240.00	3.37	3.39	0.02	27.98	0.10	1.13	1.04	1.04
320.00	3.44	3.46	0.02	29.46	0.15	1.13	1.06	1.06
360.00	3.49	3.50	0.00	29.42	0.29	1.17	1.08	1.08
400.00	3.58	3.57	0.01	28.04	0.34	1.22	1.11	1.13

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



electrical schematic



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