

Surface Mount Power Splitter/Combiner

SCP-5-1+ SCP-5-1

5 Way-0° 50Ω

2 to 200 MHz



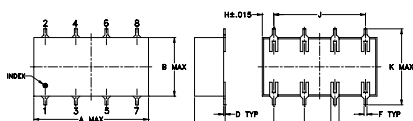
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.625W max.

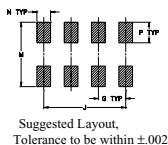
Pin Connections

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

Outline Drawing



PCB Land Pattern

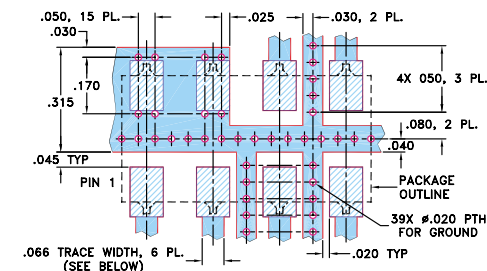


Outline Dimensions (inch)

A	B	C	D	E	F	G
0.75	0.38	0.28	0.01	0.05	0.02	0.2
19.05	9.65	7.11	0.25	1.27	0.51	5.08

H	J	K	M	N	P	wt
0.075	0.6	0.45	0.47	0.1	0.15	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.60

Demo Board MCL P/N: TB-213 Suggested PCB Layout (PL-104)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 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.

- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low insertion loss, 0.3 dB typ.
- high isolation 29 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.

Applications

- VHF
- instrumentation
- receivers/transmitters

CASE STYLE: YY161
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.

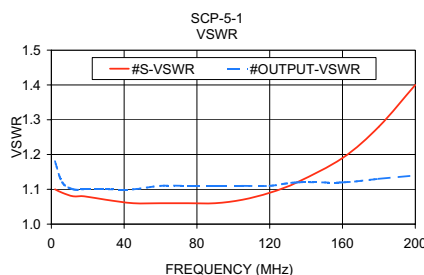
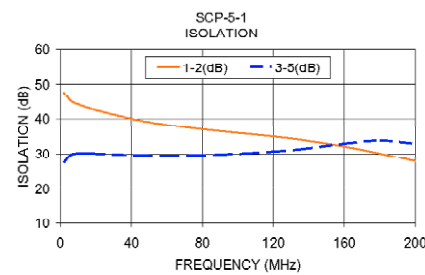
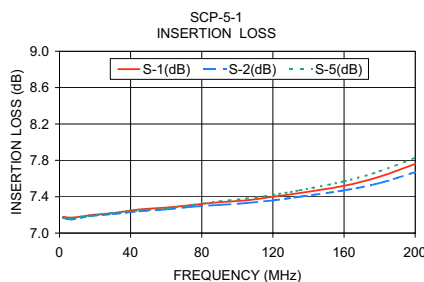
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 7.0 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.						
2-200	30	20	29	20	30	20	0.2	0.5	0.3	0.75	0.6	1.5	1	3	5	0.2	0.3	0.6

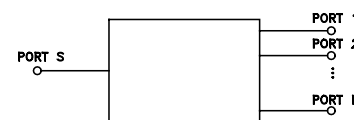
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)					Amp. Unbal. (dB)	Isolation (dB)				Phase Unbal. (deg.)	VSWR S	VSWR OUTPUTS
	S-1	S-2	S-3	S-4	S-5		1-2	2-3	2-4	3-5			
2.00	7.18	7.17	7.17	7.17	7.17	0.01	47.70	45.82	27.74	27.47	0.04	1.10	1.18
6.00	7.17	7.15	7.16	7.16	7.16	0.02	45.13	44.43	30.00	29.83	0.09	1.09	1.12
12.00	7.18	7.17	7.18	7.17	7.18	0.01	43.80	43.17	30.31	30.22	0.19	1.08	1.10
18.00	7.20	7.19	7.19	7.19	7.19	0.01	42.81	42.17	30.23	30.17	0.27	1.08	1.10
30.00	7.22	7.21	7.21	7.21	7.22	0.01	41.21	40.49	29.90	29.95	0.46	1.07	1.10
45.00	7.26	7.24	7.23	7.24	7.25	0.02	39.48	38.73	29.59	29.68	0.60	1.06	1.10
60.00	7.28	7.26	7.26	7.26	7.27	0.02	38.25	37.46	29.48	29.63	0.88	1.06	1.11
75.00	7.31	7.29	7.28	7.30	7.31	0.03	37.24	36.46	29.46	29.68	1.03	1.06	1.11
90.00	7.34	7.31	7.31	7.32	7.35	0.04	36.45	35.56	29.57	29.88	1.23	1.06	1.11
105.00	7.36	7.33	7.33	7.34	7.38	0.05	35.72	34.77	29.72	30.22	1.45	1.07	1.11
120.00	7.40	7.36	7.37	7.37	7.42	0.05	34.94	33.93	30.03	30.72	1.58	1.09	1.11
135.00	7.44	7.40	7.40	7.41	7.47	0.07	34.07	32.98	30.42	31.40	1.76	1.12	1.12
160.00	7.52	7.47	7.46	7.48	7.57	0.11	32.14	31.04	31.11	32.92	2.04	1.19	1.12
180.00	7.62	7.55	7.55	7.58	7.68	0.13	30.17	29.10	31.10	33.81	2.35	1.28	1.13
200.00	7.76	7.67	7.67	7.70	7.83	0.16	27.91	26.91	29.96	32.90	2.63	1.40	1.14



electrical schematic



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RF/IF MICROWAVE COMPONENTS

REV. B
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SCP-5-1
HY/TD/CP
070504