

Surface Mount Power Splitter/Combiner

SCP-4-1W-75+ SCP-4-1W-75

4 Way-0° 75Ω

10 to 750 MHz



Maximum Ratings

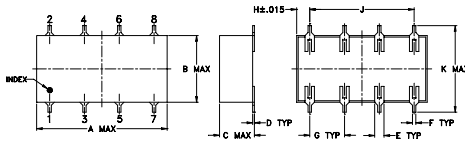
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.375W max.

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

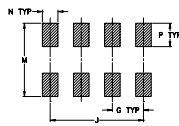
Pin Connections

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

Outline Drawing



PCB Land Pattern



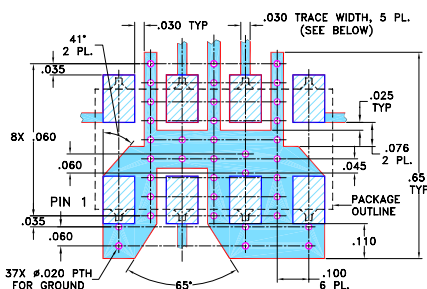
Suggested Layout,
Tolerance to be within ±.002

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-184 Suggested PCB Layout (PL-175)



NOTE: 1. TRACE WIDTH IS SHOWN FOR FR4 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

- wideband, 10 to 750 MHz
- high isolation, 32 dB typ.
- excellent amplitude unbalance, 0.4dB typ.

Applications

- VHF/UHF
- CATV
- transmitters/receiver

CASE STYLE: YY161
PRICE: \$27.95 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

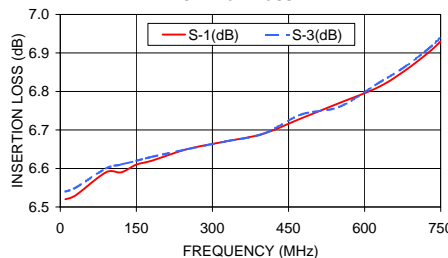
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 6 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
f_L - f_U	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.						
10-750	36	20	32	20	24	15	0.5	1.0	0.65	1.3	0.8	2.0	1.5	3	6	0.2	0.4	0.9

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]

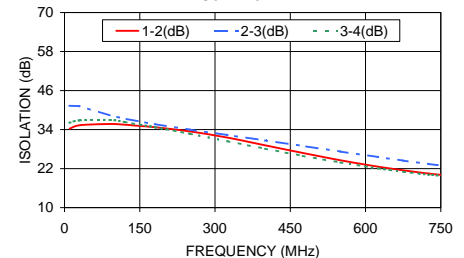
Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
10.00	6.52	6.53	6.54	6.53	0.02	34.28	41.32	36.11	0.06	1.12	1.20	1.20	1.18	1.20
30.00	6.53	6.55	6.55	6.54	0.02	35.34	41.23	36.85	0.16	1.11	1.19	1.18	1.17	1.19
90.00	6.59	6.59	6.60	6.58	0.02	35.72	38.36	36.97	0.43	1.12	1.20	1.19	1.18	1.19
120.00	6.59	6.61	6.61	6.59	0.02	35.51	37.36	36.32	0.57	1.13	1.20	1.20	1.19	1.20
150.00	6.61	6.62	6.62	6.60	0.02	35.11	36.45	35.50	0.74	1.14	1.20	1.20	1.19	1.21
180.00	6.62	6.63	6.63	6.61	0.02	34.73	35.68	34.72	0.85	1.15	1.21	1.21	1.20	1.21
250.00	6.65	6.66	6.65	6.62	0.04	33.42	33.99	32.69	1.21	1.17	1.22	1.23	1.22	1.24
325.00	6.67	6.69	6.67	6.63	0.06	31.53	32.31	30.42	1.54	1.19	1.23	1.24	1.25	1.26
400.00	6.69	6.73	6.69	6.65	0.08	29.17	30.66	28.12	1.86	1.20	1.24	1.25	1.26	1.28
475.00	6.73	6.78	6.74	6.67	0.11	26.80	28.96	25.92	2.15	1.19	1.24	1.28	1.30	1.31
550.00	6.77	6.83	6.76	6.68	0.15	24.55	27.25	23.87	2.36	1.17	1.24	1.27	1.29	1.31
625.00	6.81	6.90	6.82	6.71	0.18	22.59	25.55	22.07	2.67	1.13	1.23	1.28	1.31	1.28
675.00	6.85	6.96	6.86	6.74	0.22	21.47	24.47	21.03	2.78	1.10	1.21	1.27	1.30	1.30
725.00	6.90	7.02	6.91	6.78	0.24	20.50	23.44	20.15	2.88	1.08	1.21	1.27	1.32	1.25
750.00	6.93	7.06	6.94	6.80	0.26	20.07	22.95	19.75	2.96	1.08	1.20	1.27	1.32	1.26

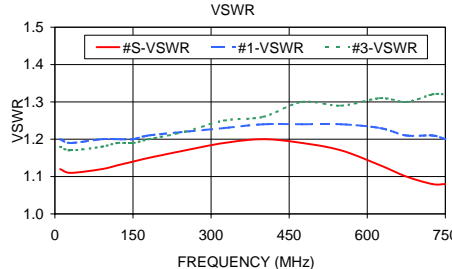
SCP-4-1W-75
INSERTION LOSS



SCP-4-1W-75
ISOLATION



SCP-4-1W-75
VSWR



Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IFIRF MICROWAVE COMPONENTS

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