

Surface Mount Power Splitter/Combiner

4 Way-0° 75Ω

10 to 750 MHz

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



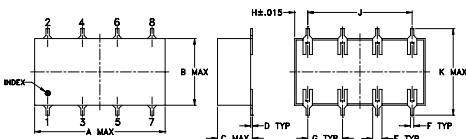
Maximum Ratings

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.	

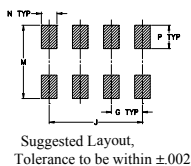
Pin Connections

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

Outline Drawing



PCB Land Pattern



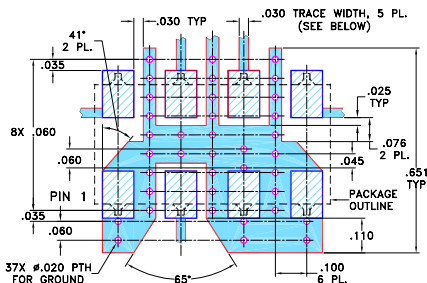
Suggested Layout,
Tolerance to be within ±.002

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

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

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

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

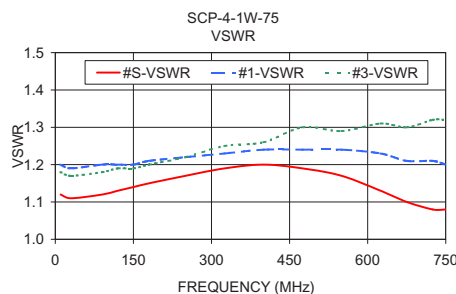
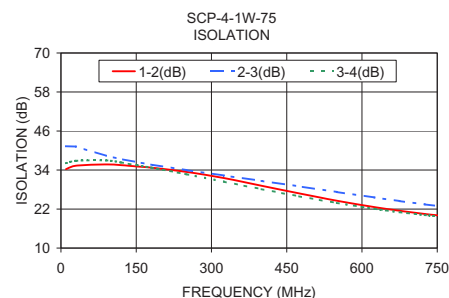
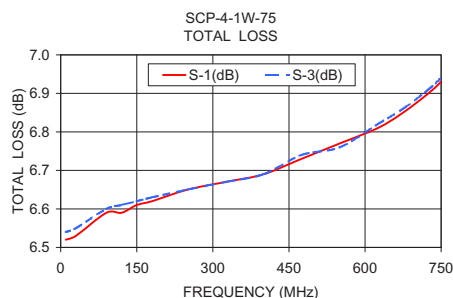
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 6 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L	M	U	L	M	U	L	M	U	L	M	U
f _L -f _U	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.
10-750	36	20	32	20	24	15	0.5	1.0	0.65	1.3	0.8	2.0

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)	Total Loss ¹ (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR				
	S-1	S-2	S-3	S-4		1-2	2-3	3-4		S	1	2	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

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



Electrical Schematic

