

Power Splitter/Combiner

SCA-4-10-75+

4 Way-0° 75Ω 10 to 1000 MHz



CASE STYLE: DZ943
PRICE: \$6.95 ea. QTY. (10)

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

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500, 1000

Maximum Ratings

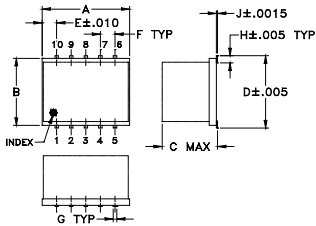
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.375W max.

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

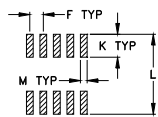
Pin Connections

SUM PORT	3
PORT 1	6
PORT 2	7
PORT 3	9
PORT 4	10
GROUND	1,2,4,5,8

Outline Drawing



PCB Land Pattern

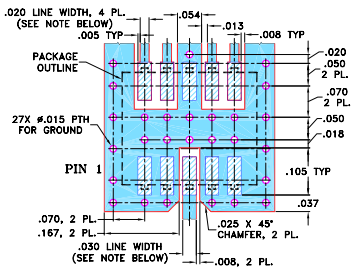


Suggested Layout, Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.30	.250	.190	.266	.050	.050	.012
7.62	6.35	4.83	6.76	1.27	1.27	0.30
H	J	K	L	M	wt	
.029	.004	.085	.296	.030	grams	
0.74	0.10	2.16	7.52	0.76	0.5	

Demo Board MCL P/N: TB-247 Suggested PCB Layout (PL-133)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.030" ± 0.002", COPPER: 1/2 OZ. EACH SIDE.
2. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
3. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

■ DENOTES PCB COPPER LAYOUT
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

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-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- wideband, 10-1000 MHz
- high isolation, 25 dB typ.
- good amplitude unbalance, 0.5 dB typ.

Applications

- cellular
- UHF/VHF receivers/transmitters

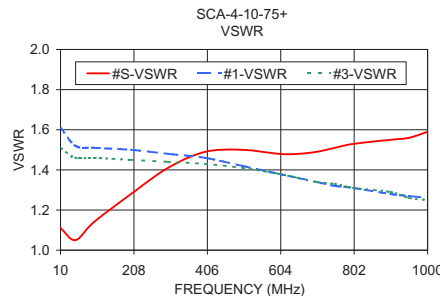
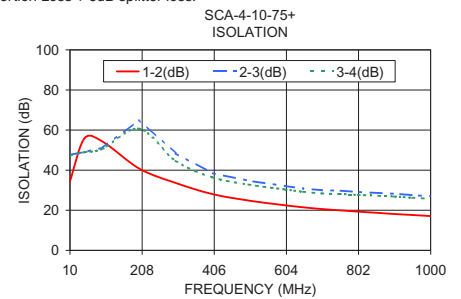
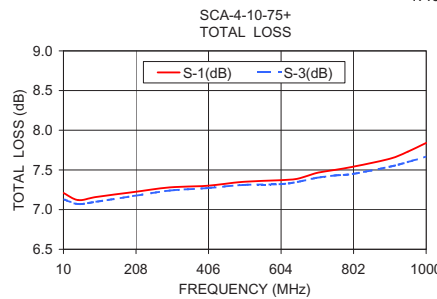
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 6.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.		
f_L - f_U					Max.	Max.
10-1000						
10-400	30	22	1.2	2.3	6	1.2
400-650	25	18	1.5	2.2	9	0.9
650-1000	20	15	2.0	2.5	10	0.9

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (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	1-3	2-3						
10.00	7.21	6.78	7.13	7.53	0.74	34.55	47.68	47.34	1.86	1.11	1.61	1.48	1.51	1.64
50.00	7.12	6.75	7.07	7.43	0.68	55.90	49.10	48.97	0.85	1.05	1.52	1.42	1.46	1.57
100.00	7.16	6.77	7.10	7.48	0.71	54.20	51.26	50.69	0.94	1.14	1.51	1.43	1.46	1.55
200.00	7.22	6.87	7.17	7.53	0.66	40.79	65.07	60.68	1.45	1.28	1.50	1.44	1.45	1.52
300.00	7.28	6.95	7.24	7.56	0.61	33.63	48.42	44.66	2.13	1.41	1.48	1.45	1.44	1.49
400.00	7.30	7.01	7.27	7.56	0.55	28.11	38.54	36.47	2.40	1.49	1.46	1.46	1.43	1.45
500.00	7.35	7.03	7.31	7.59	0.56	24.85	34.71	32.80	2.83	1.50	1.42	1.44	1.41	1.41
600.00	7.37	7.02	7.32	7.60	0.58	22.50	32.13	30.41	2.98	1.48	1.38	1.40	1.38	1.36
650.00	7.39	7.04	7.35	7.63	0.59	21.50	30.85	29.23	3.11	1.48	1.36	1.39	1.36	1.34
700.00	7.46	7.11	7.40	7.67	0.56	20.63	30.04	28.44	3.53	1.49	1.34	1.37	1.34	1.33
750.00	7.50	7.14	7.43	7.70	0.56	19.98	29.78	28.11	3.53	1.51	1.32	1.34	1.33	1.31
800.00	7.54	7.15	7.45	7.75	0.59	19.37	29.15	27.66	3.59	1.53	1.31	1.32	1.31	1.30
900.00	7.64	7.26	7.54	7.82	0.56	18.17	28.23	26.83	4.14	1.55	1.28	1.27	1.29	1.29
950.00	7.73	7.31	7.60	7.88	0.57	17.63	27.54	26.25	4.30	1.56	1.27	1.25	1.26	1.29
1000.00	7.84	7.40	7.67	7.98	0.57	17.09	26.99	25.74	4.59	1.59	1.26	1.24	1.25	1.29

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



electrical schematic

