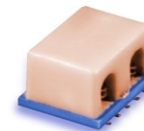


# Surface Mount Power Splitter/Combiner

**NEW!**  
SCA-4-15-75

4 Way-0° 75Ω

10 to 1500 MHz



**BLUE CELL™**

CASE STYLE: DZ943  
PRICE: \$7.95 ea. QTY (10-49)

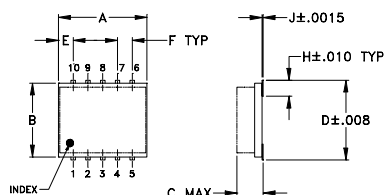
## Maximum Ratings

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.

## Pin Connections

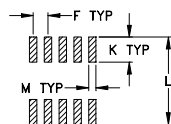
SUM PORT	3
PORT 1	6
PORT 2	7
PORT 3	9
PORT 4	10
GROUND	1,2,4,5,8

## Outline Drawing



TOLERANCES  
2 PL DECIMALS ±.01  
3 PL DECIMALS ±.005  
UNLESS OTHERWISE SPECIFIED

G TYP



SUGGESTED LAYOUT FOR PCB LAND PATTERN

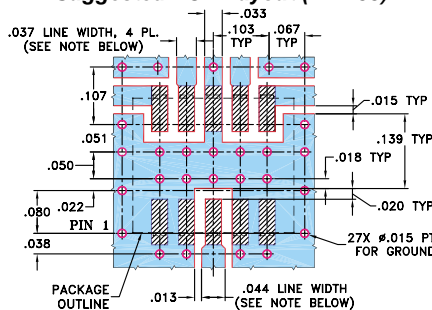
## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.30	.250	.190	.274	.050	.050	.012
7.62	6.35	4.83	6.96	1.27	1.27	0.30

H	J	K	L	M	wt
.057	.004	.085	.296	.030	grams
1.45	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 0.020" ± 0.0015". 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 SOLDERMASK

## Features

- wideband, 10-1500 MHz
- high isolation, 25 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.
- patent pending

## Applications

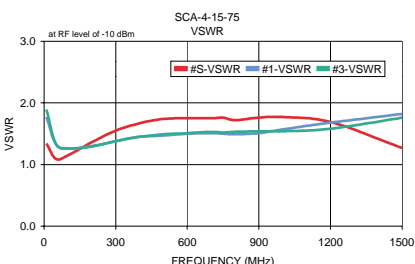
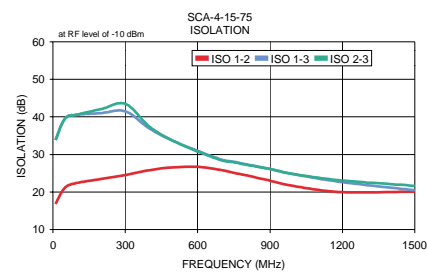
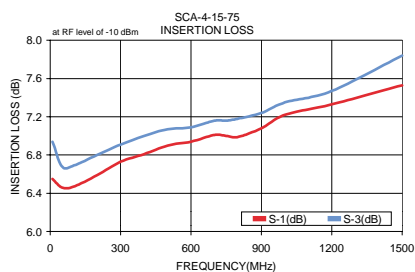
- cable
- cellular
- UHF/VHF receivers/transmitters

## Splitter Electrical Specifications

FREQ. RANGE (MHz) $f_L$ - $f_U$	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 6 dB		PHASE UNBALANCE (Degrees) Max.	AMPLITUDE UNBALANCE (dB) Max.
	Typ.	Min.	Typ.	Max.		
10-1500						
10-40	19	14	0.5	1.3	8	0.8
40-1000	25	17	1.2	2.0	9	0.9
1000-1500	19	15	1.4	2.8	16	1.1

## Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR				
	S-1	S-2	S-3	S-4		1-2	1-3	2-3		S	1	2	3	4
10.00	6.55	6.54	6.94	6.94	0.40	16.87	33.94	33.83	3.51	1.34	1.77	1.76	1.89	1.89
50.00	6.46	6.44	6.68	6.70	0.26	21.16	39.62	39.56	1.08	1.09	1.33	1.31	1.33	1.34
100.00	6.47	6.46	6.69	6.69	0.24	22.43	40.59	40.60	0.73	1.15	1.26	1.26	1.26	1.26
200.00	6.59	6.57	6.80	6.79	0.22	23.48	41.01	42.08	0.58	1.36	1.30	1.30	1.29	1.27
300.00	6.73	6.69	6.91	6.92	0.23	24.51	41.51	43.50	0.65	1.55	1.38	1.39	1.38	1.32
400.00	6.81	6.81	7.00	7.01	0.21	25.83	36.92	37.42	0.96	1.67	1.45	1.46	1.45	1.36
500.00	6.90	6.89	7.07	7.12	0.22	26.56	33.56	33.57	1.12	1.74	1.47	1.52	1.49	1.38
600.00	6.94	6.91	7.09	7.16	0.24	26.70	30.99	30.78	1.59	1.75	1.50	1.55	1.51	1.40
700.00	7.01	7.01	7.16	7.25	0.24	25.82	28.63	28.45	1.88	1.75	1.51	1.57	1.53	1.42
750.00	7.00	7.02	7.16	7.25	0.25	25.11	28.05	27.96	2.08	1.76	1.50	1.59	1.52	1.42
800.00	6.99	7.04	7.18	7.26	0.27	24.45	27.38	27.29	2.43	1.72	1.49	1.61	1.53	1.43
900.00	7.08	7.13	7.24	7.36	0.28	23.02	26.15	26.12	2.47	1.76	1.51	1.61	1.54	1.45
1000.00	7.22	7.27	7.35	7.52	0.30	21.58	24.72	24.75	2.80	1.77	1.57	1.62	1.54	1.49
1200.00	7.33	7.44	7.47	7.62	0.28	19.96	22.62	23.07	3.85	1.69	1.68	1.69	1.58	1.56
1500.00	7.53	7.71	7.84	7.92	0.39	20.11	20.47	21.65	6.46	1.27	1.82	1.90	1.76	1.78



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