

# Surface Mount Power Splitter/Combiner

## SP-2C1+

2 Way-0° 50Ω

640 to 1100 MHz



### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Power Input (as a splitter)	1.5W max.
Internal Dissipation	0.75W max.

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

### Pin Connections

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

### Features

- wide bandwidth
- good isolation, 20 dB typ.
- excellent VSWR, 1.25:1 typ.
- excellent power handling, 1.5W
- small size
- aqueous washable

CASE STYLE: CA531  
PRICE: \$0.96 ea. QTY (20)

**+RoHS Compliant**

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

### Applications

- cellular
- GSM
- Land Mobile
- ISM
- PDC

**Available Tape and Reel at no extra cost**

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

### Electrical Specifications

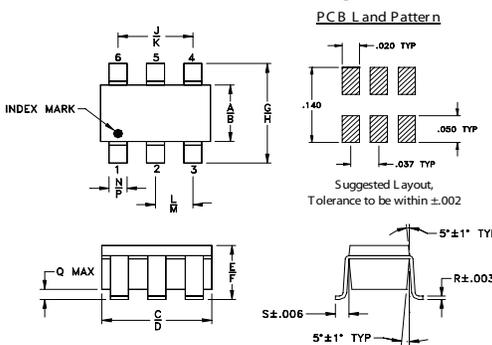
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
	Typ.	Min.	Typ.	Max.			S-Port	Output Ports Typ.
640-1100	20	10	0.4	1.0	2	0.2	1.25	1.25

### Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
640.00	3.42	3.43	0.01	12.16	0.05	1.39	1.25	1.26
680.00	3.40	3.41	0.01	14.02	0.05	1.34	1.20	1.20
720.00	3.39	3.39	0.01	16.44	0.05	1.29	1.15	1.15
760.00	3.37	3.38	0.01	19.75	0.04	1.24	1.11	1.12
800.00	3.37	3.38	0.01	24.99	0.04	1.20	1.11	1.11
840.00	3.37	3.38	0.01	37.94	0.04	1.17	1.14	1.14
860.00	3.37	3.38	0.01	36.99	0.04	1.16	1.16	1.16
880.00	3.38	3.39	0.01	29.21	0.04	1.17	1.19	1.19
900.00	3.39	3.39	0.01	25.08	0.04	1.17	1.22	1.21
940.00	3.41	3.42	0.01	20.29	0.03	1.21	1.27	1.27
960.00	3.43	3.43	0.01	18.66	0.02	1.24	1.30	1.30
980.00	3.44	3.45	0.01	17.32	0.03	1.27	1.33	1.33
990.00	3.46	3.47	0.01	16.73	0.03	1.29	1.35	1.35
1000.00	3.47	3.48	0.01	16.18	0.03	1.31	1.37	1.36
1100.00	3.64	3.65	0.01	12.18	0.04	1.56	1.52	1.51

1. Total Loss = Insertion Loss + 3dB splitter loss.

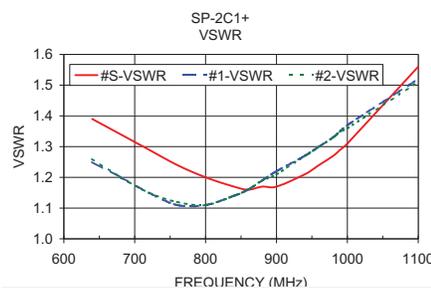
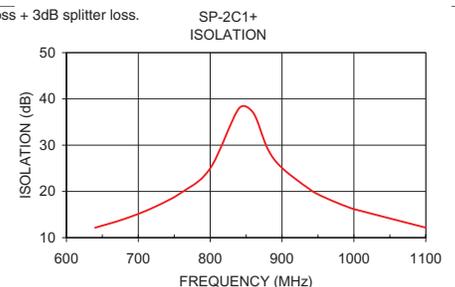
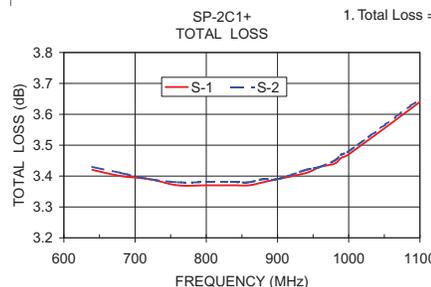
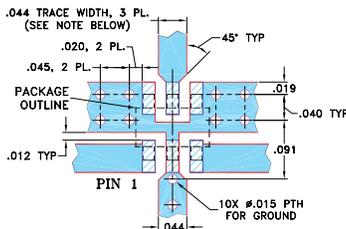
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	wt
.052	.067	.106	.122	.035	.064	.087	.118	.067	.083	.033	.042	.012	.020	.012	.006	.018	grams
1.32	1.70	2.69	3.10	0.89	1.63	2.21	3.00	1.70	2.11	0.84	1.07	0.30	0.51	0.30	0.15	0.46	0.020

### Demo Board MCL P/N: TB-374 Suggested PCB Layout (PL-232)



### electrical schematic



### ESD Rating

Human Body Model (HBM): Class 1A (250 v to <500 v) in accordance with ANSI/ESD STM 5.1 - 2001  
Machine Model (MM): Class M1 (< 100 v) in accordance with ANSI/ESD STM 5.2 - 1999 (pass 50V)



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

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