

Surface Mount

# Power Splitter/Combiner

BP2C+

2 Way-0° 50Ω 810 to 960 MHz



CASE STYLE: XX211  
PRICE: \$0.96 ea. QTY. (20)

**+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" 20, 50, 100, 200, 500, 1000

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

## Features

- low insertion loss, 0.4 dB typ.
- high isolation, 25 dB typ.
- excellent VSWR, 1.07 typ.
- excellent power handling, 1.5W
- low profile
- aqueous washable

## Applications

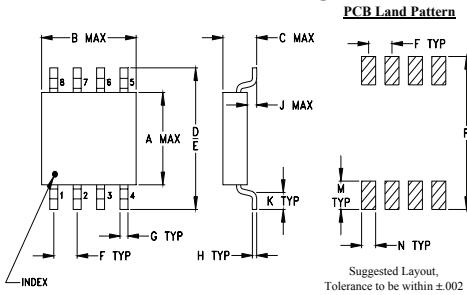
- cellular
- GSM
- PDC
- CDMA

## 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 Typ.	Output-Ports Typ.
f <sub>L</sub> -f <sub>U</sub>					Max.	Max.		
810-960	25	18*	0.4	0.9	3.0	0.2	1.15	1.09

\* 17 dB Min. above 920 MHz

## Outline Drawing



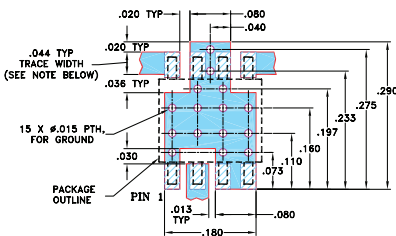
## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.163	.210	.077	.250	.220	.050	.017
4.14	5.33	1.96	6.35	5.59	1.27	0.43

H	J	K	M	N	P	wt
.009	.025	.030	.050	.030	.270	grams
0.23	0.64	0.76	1.27	0.76	6.86	0.10

## Demo Board MCL P/N: TB-37 Suggested PCB Layout (PL-053)



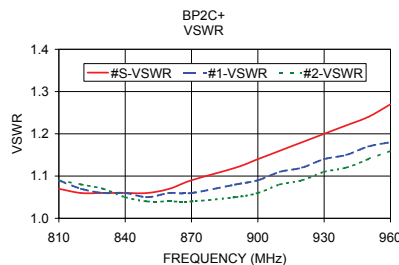
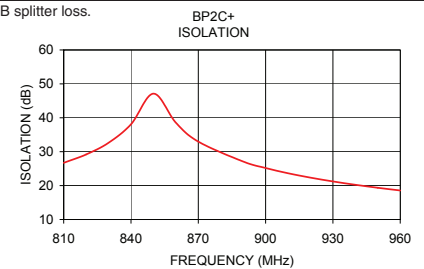
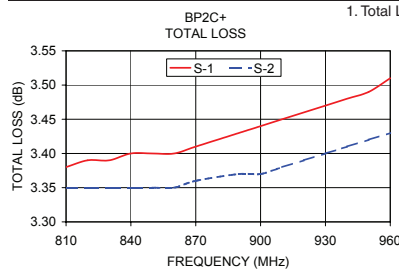
- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

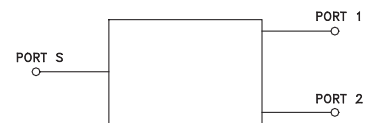
## Typical Performance Data at 25°C

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						
810.00	3.38	3.35	0.04	26.72	0.57	1.07	1.09	1.09
820.00	3.39	3.35	0.04	29.19	0.58	1.06	1.07	1.08
830.00	3.39	3.35	0.04	32.62	0.58	1.06	1.06	1.07
840.00	3.40	3.35	0.05	38.08	0.59	1.06	1.06	1.05
850.00	3.40	3.35	0.05	47.12	0.60	1.06	1.05	1.04
860.00	3.40	3.35	0.05	38.56	0.61	1.07	1.06	1.04
870.00	3.41	3.36	0.05	32.96	0.61	1.09	1.06	1.04
890.00	3.43	3.37	0.06	27.10	0.61	1.12	1.08	1.05
900.00	3.44	3.37	0.06	25.19	0.62	1.14	1.09	1.06
910.00	3.45	3.38	0.06	23.64	0.62	1.16	1.11	1.08
920.00	3.46	3.39	0.07	22.35	0.63	1.18	1.12	1.09
930.00	3.47	3.40	0.07	21.22	0.64	1.20	1.14	1.11
940.00	3.48	3.41	0.07	20.24	0.65	1.22	1.15	1.12
950.00	3.49	3.42	0.07	19.36	0.66	1.24	1.17	1.14
960.00	3.51	3.43	0.08	18.56	0.67	1.27	1.18	1.16

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



## electrical schematic



## ESD Rating

Human Body Model (HBM): Class 0 (<250V) in accordance with ANSI/ESD STM 5.1 - 2001  
Machine Model (MM): Class M1 (<100V) in accordance with ANSI/ESD STM 5.2 - 1999 (pass 50V)

## 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.  
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