

# Surface Mount Power Splitter/Combiner

4 Way-0° 50Ω

810 to 960 MHz

BP4C+



Generic photo used for illustration purposes only

CASE STYLE: XX211

**+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
13"	2000

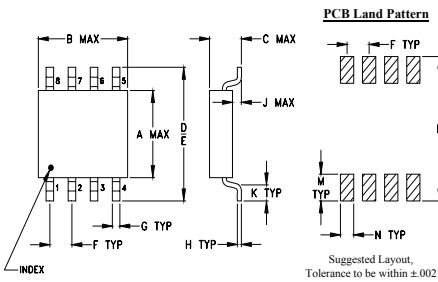
## Maximum Ratings

Operating Temperature -40°C to 85°C  
Storage Temperature -65°C to 150°C  
Power Input (as a splitter) 1.5W max.  
Internal Dissipation 0.375W max.  
Permanent damage may occur if any of these limits are exceeded.

## Pin Connections

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

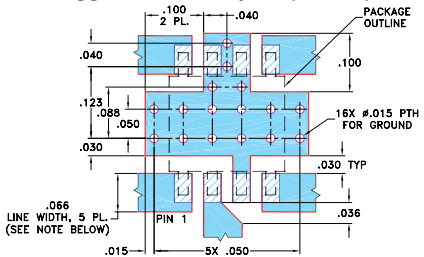
## Outline Drawing



## 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-231 Suggested PCB Layout (PL-113)



## Features

- excellent isolation, 22 dB typ.
- excellent output VSWR, 1.25:1 typ.
- excellent amplitude unbalance, 0.15 dB typ.
- aqueous washable
- excellent power handling, 1.5W

## Applications

- cellular
- communications systems
- instrumentation

## Electrical Specifications

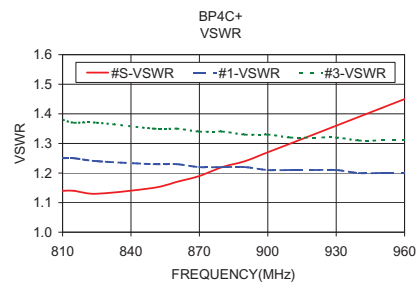
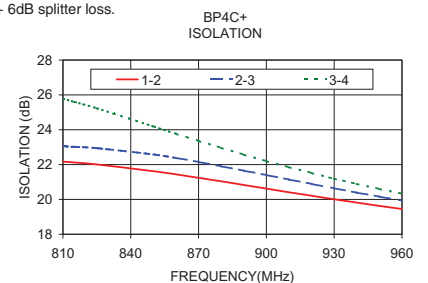
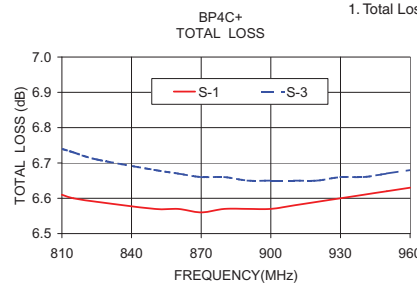
FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 6 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1) Typ.	
		Typ.	Max.			Port S	Ports 1,2,3,4
f <sub>L</sub> -f <sub>U</sub>	Typ. Min.	Typ.	Max.	Max.	Max.	Port S	Ports 1,2,3,4
810-960	22 18*	0.7	1.6	8	0.6	1.35	1.25

\*17 dB min. above 900 MHz.

## Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (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
810.00	6.61	6.76	6.74	6.77	0.16	22.17	23.05	25.78	2.43	1.14	1.25	1.38	1.38	1.30
815.00	6.60	6.75	6.73	6.76	0.16	22.12	23.02	25.60	2.50	1.14	1.25	1.38	1.37	1.30
825.00	6.59	6.73	6.71	6.74	0.15	22.01	22.94	25.23	2.66	1.13	1.24	1.37	1.37	1.29
850.00	6.57	6.70	6.68	6.71	0.14	21.62	22.58	24.19	3.17	1.15	1.23	1.36	1.35	1.28
860.00	6.57	6.69	6.67	6.70	0.14	21.44	22.38	23.77	3.38	1.17	1.23	1.35	1.35	1.27
870.00	6.56	6.68	6.66	6.70	0.13	21.24	22.15	23.36	3.57	1.19	1.22	1.35	1.34	1.27
880.00	6.57	6.68	6.66	6.69	0.13	21.04	21.90	22.96	3.77	1.22	1.22	1.34	1.34	1.26
890.00	6.57	6.68	6.65	6.69	0.12	20.83	21.65	22.57	3.97	1.24	1.22	1.34	1.33	1.26
900.00	6.57	6.68	6.65	6.69	0.12	20.62	21.40	22.20	4.16	1.27	1.21	1.33	1.33	1.25
910.00	6.58	6.68	6.65	6.69	0.11	20.41	21.14	21.85	4.35	1.30	1.21	1.33	1.32	1.25
920.00	6.59	6.68	6.65	6.70	0.11	20.21	20.89	21.52	4.54	1.33	1.21	1.33	1.32	1.24
930.00	6.60	6.69	6.66	6.70	0.10	20.01	20.64	21.19	4.73	1.36	1.21	1.32	1.32	1.24
940.00	6.61	6.69	6.66	6.71	0.10	19.82	20.39	20.89	4.93	1.39	1.20	1.32	1.31	1.24
950.00	6.62	6.70	6.67	6.71	0.09	19.63	20.16	20.60	5.13	1.42	1.20	1.32	1.31	1.24
960.00	6.63	6.70	6.68	6.72	0.09	19.45	19.93	20.33	5.31	1.45	1.20	1.31	1.31	1.23

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



## 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)

## 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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