

Surface Mount

# Power Splitter/Combiner

4 Way-0° 50Ω

810 to 960 MHz

BP4C+



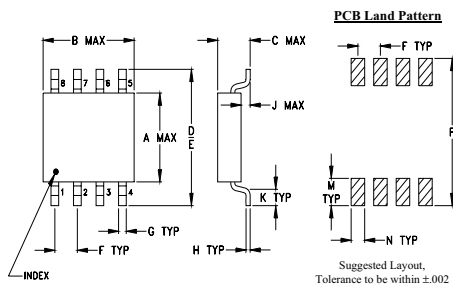
## Maximum Ratings

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.

## Pin Connections

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

## Outline Drawing



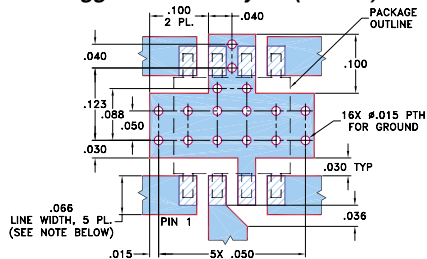
## Outline Dimensions (inch/mm)

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)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002". 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.  
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## 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

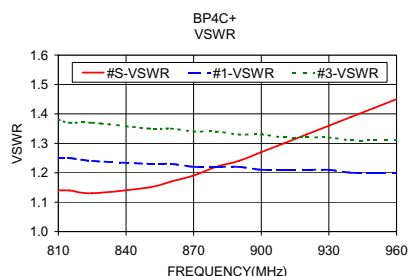
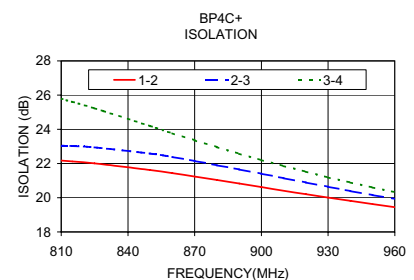
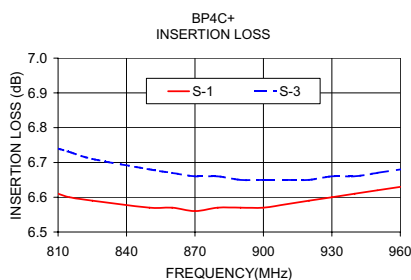
## Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 6 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1) Typ.
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)	Insertion Loss (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



## 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)

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