

Surface Mount

# Power Splitter/Combiner

BP2G1+

2 Way-0° 50Ω 1200 to 2000 MHz



Generic photo used for illustration purposes only

CASE STYLE: XX211

## 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

- wide bandwidth, 1200-2000 MHz
- low insertion loss, 0.6 dB typ.
- high isolation, 21 dB typ.
- good input and output VSWR, 1.3:1 typ.
- excellent power handling, 1.5W
- excellent repeatability
- low profile
- aqueous washable

## Applications

- GPS
- WCDMA
- PCS
- DCS

## Electrical Specifications

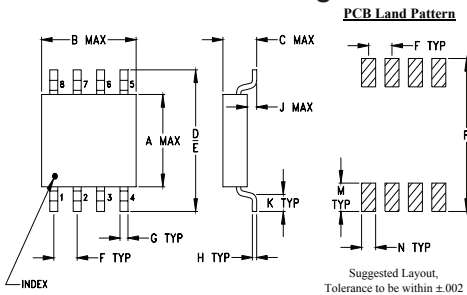
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
	Typ.	Min.	Typ.	Max.			S-Port Typ.	Output-Ports Typ.
1200-2000	21	10	0.6	1.3	3.0	0.3	1.3	1.3

**+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

## 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

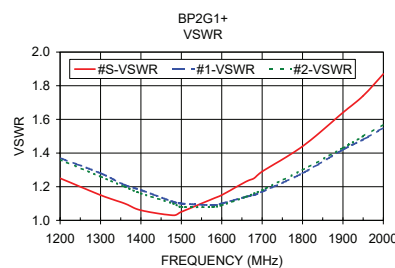
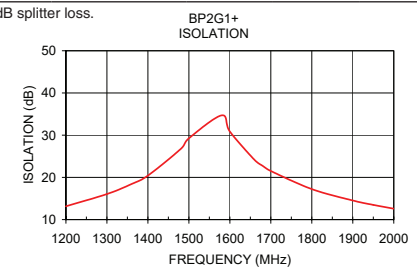
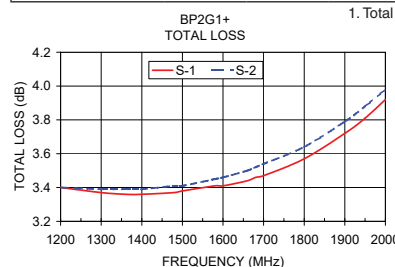
  

H	J	K	M	N	P	wt
.009	.025	.030	.050	.030	.270	grams
0.23	0.64	0.76	1.27	0.76	6.86	0.10

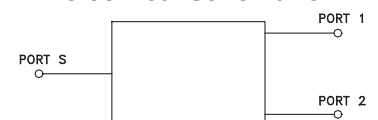
## Typical Performance Data at 25°C

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						
1200.00	3.40	3.40	0.01	13.15	0.13	1.25	1.37	1.36
1300.00	3.37	3.39	0.02	16.05	0.10	1.15	1.28	1.26
1360.00	3.36	3.39	0.03	18.41	0.11	1.10	1.21	1.20
1400.00	3.36	3.39	0.03	20.43	0.11	1.06	1.18	1.16
1480.00	3.37	3.41	0.04	26.71	0.10	1.03	1.11	1.10
1500.00	3.38	3.41	0.04	29.25	0.10	1.05	1.10	1.08
1580.00	3.41	3.45	0.04	34.69	0.03	1.13	1.09	1.08
1600.00	3.41	3.46	0.05	30.85	0.01	1.15	1.10	1.09
1660.00	3.44	3.50	0.05	24.16	0.04	1.23	1.14	1.14
1680.00	3.46	3.52	0.06	22.73	0.04	1.25	1.15	1.16
1700.00	3.47	3.54	0.06	21.52	0.05	1.29	1.17	1.18
1800.00	3.57	3.64	0.07	17.23	0.12	1.44	1.28	1.30
1900.00	3.72	3.79	0.07	14.52	0.08	1.64	1.42	1.43
1950.00	3.81	3.88	0.07	13.48	0.15	1.74	1.48	1.50
2000.00	3.92	3.98	0.06	12.58	0.12	1.87	1.55	1.57

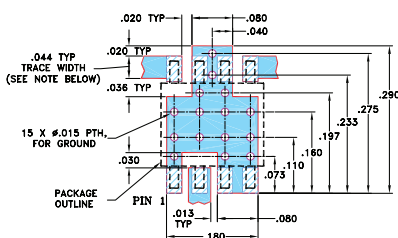
1. Total Loss = Insertion Loss + 3dB splitter loss.



## electrical schematic



## 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

## 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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