Surface Mount

Power Splitter/Combiner

2 Way-0° 50Ω 1710 to 1990 MHz

BP2P+



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	0.75W 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, 0.5 dB typ.
- high isolation, 30 dB typ.
- excellent VSWR, 1.10:1 typ.
- excellent power handling, 1.5W
- excellent repeatability
- low profile
- aqueous washable

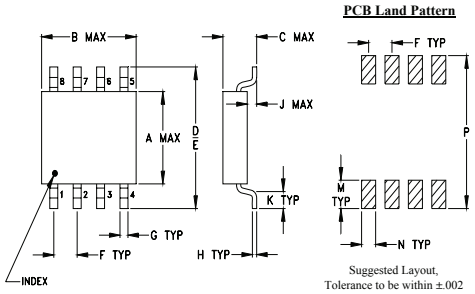
Applications

- PCS/DCS
- GSM
- WCDMA

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
							S-Port	Output-Ports
f_L-f_U	Typ.	Min.	Typ.	Max.	Max.	Max.	Typ.	Typ.
1710-1990	30	18	0.5	1.0	3.0	0.2	1.15	1.11

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

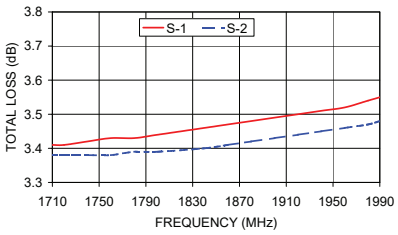
H	J	K	M	N	P	wt
.009	.025	.030	.050	.030	.270	grams
0.23	0.64	0.76	1.27	0.76	6.86	0.10

Typical Performance Data at 25°C

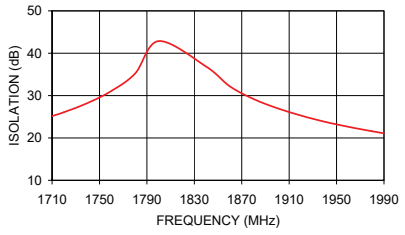
Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1710.00	3.41	3.38	0.04	25.17	0.01	1.01	1.14	1.16
1720.00	3.41	3.38	0.04	26.08	0.02	1.01	1.13	1.15
1740.00	3.42	3.38	0.04	28.25	0.03	1.03	1.11	1.13
1760.00	3.43	3.38	0.04	31.09	0.05	1.04	1.10	1.12
1780.00	3.43	3.39	0.04	35.20	0.05	1.06	1.09	1.10
1800.00	3.44	3.39	0.05	42.86	0.05	1.07	1.08	1.09
1840.00	3.46	3.40	0.05	36.84	0.07	1.11	1.07	1.08
1860.00	3.47	3.41	0.06	32.18	0.08	1.13	1.08	1.08
1880.00	3.48	3.42	0.06	29.19	0.09	1.15	1.08	1.09
1900.00	3.49	3.43	0.06	27.01	0.10	1.17	1.10	1.10
1920.00	3.50	3.44	0.06	25.28	0.11	1.19	1.11	1.11
1940.00	3.51	3.45	0.07	23.83	0.11	1.21	1.13	1.13
1960.00	3.52	3.46	0.07	22.62	0.12	1.24	1.15	1.14
1980.00	3.54	3.47	0.07	21.57	0.15	1.26	1.17	1.16
1990.00	3.55	3.48	0.07	21.10	0.16	1.27	1.18	1.17

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

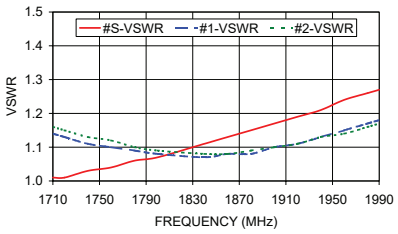
BP2P+
TOTAL LOSS



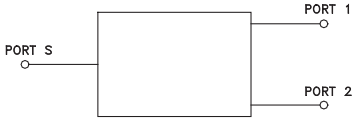
BP2P+
ISOLATION



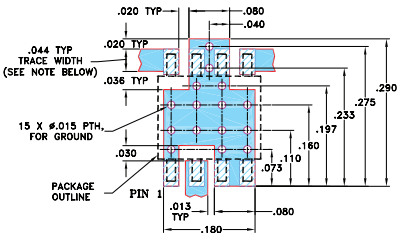
BP2P+
VSWR



electrical schematic



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



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B 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 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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