

Power Splitter/Combiner

BP4P

4 Way-0° 50Ω 1710 to 1990 MHz



Generic photo used for illustration purposes only

CASE STYLE: XX211

Maximum Ratings

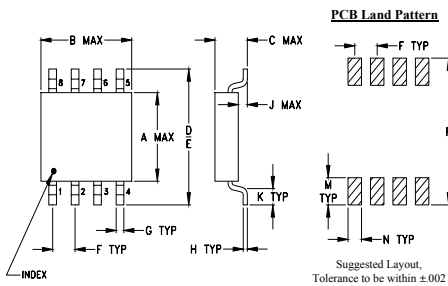
Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Power Input (as a splitter)	1.5W max.
Internal Dissipation	0.375W max.

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

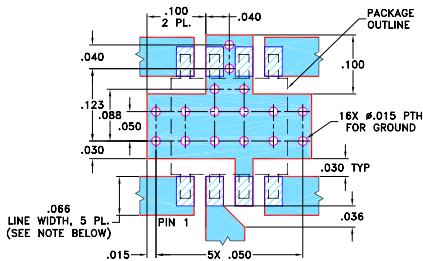
Outline Drawing



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)



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

Features

- low insertion loss, 0.8 dB typ.
- aqueous washable

Applications

- PCS/DCS
- communications systems
- instrumentation

Electrical Specifications

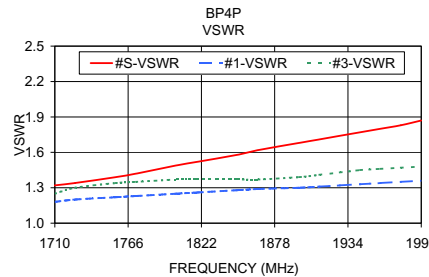
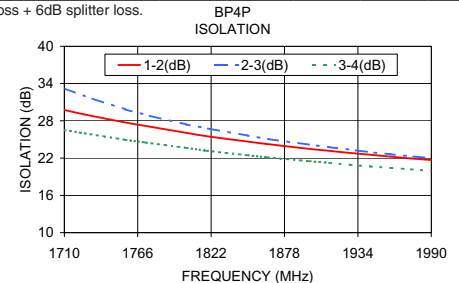
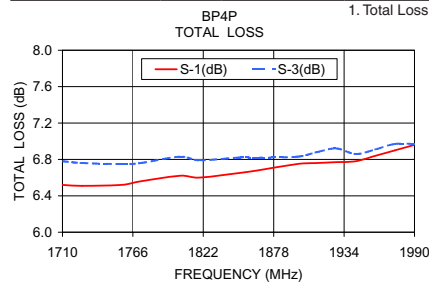
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 6.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE ² (dB)	VSWR (:1) Typ.	
	Typ.	Min.	Typ.	Max.			Ports S	Ports 1,2,3,4
1710-1990	23	19 ¹	0.8	1.3	15	0.5	1.45	1.25

1. 18 dB min. above 1900 MHz.
2. Measurements relative to port 2.

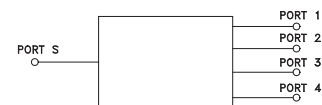
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
1710.00	6.33	6.64	6.82	6.82	0.50	28.02	31.20	33.25	6.48	1.14	1.22	1.28	1.24	1.29
1720.00	6.32	6.63	6.80	6.81	0.49	27.88	31.33	32.37	6.67	1.12	1.22	1.28	1.24	1.29
1740.00	6.32	6.61	6.78	6.80	0.48	27.54	31.32	30.86	7.05	1.09	1.21	1.27	1.23	1.28
1760.00	6.32	6.59	6.77	6.78	0.46	27.16	31.01	29.59	7.43	1.06	1.21	1.27	1.22	1.27
1780.00	6.33	6.57	6.75	6.77	0.45	26.75	30.48	28.51	7.82	1.05	1.20	1.26	1.22	1.26
1800.00	6.33	6.56	6.73	6.76	0.43	26.31	29.80	27.58	8.19	1.05	1.20	1.26	1.21	1.26
1820.00	6.34	6.55	6.72	6.76	0.42	25.85	29.03	26.75	8.56	1.07	1.19	1.25	1.21	1.25
1840.00	6.35	6.54	6.72	6.76	0.41	25.41	28.25	26.01	8.93	1.10	1.19	1.25	1.20	1.24
1860.00	6.36	6.54	6.71	6.76	0.39	25.00	27.52	25.36	9.30	1.13	1.19	1.24	1.20	1.24
1880.00	6.38	6.54	6.71	6.76	0.38	24.59	26.83	24.76	9.67	1.16	1.19	1.24	1.19	1.23
1900.00	6.39	6.53	6.70	6.76	0.36	24.20	26.14	24.21	10.04	1.19	1.18	1.24	1.19	1.23
1920.00	6.41	6.53	6.70	6.76	0.35	23.80	25.51	23.71	10.41	1.22	1.18	1.23	1.18	1.22
1940.00	6.43	6.53	6.70	6.77	0.34	23.43	24.93	23.25	10.77	1.25	1.17	1.23	1.18	1.22
1960.00	6.45	6.54	6.70	6.78	0.32	23.11	24.40	22.83	11.13	1.28	1.17	1.22	1.18	1.21
1990.00	6.49	6.54	6.71	6.79	0.30	22.65	23.66	22.24	11.70	1.33	1.17	1.22	1.17	1.21

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



electrical schematic



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.
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