NON-CATALOG

Surface Mount

Power Splitter/Combiner

JPS-3-1

3 Way-0° 50Ω 5 to 300 MHz

Generic photo used for illustration purposes only

CASE STYLE: BH292

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.375W max.

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

SUM PORT	1
PORT 1	6
PORT 2	4
PORT 3	3
GROUND	2,5

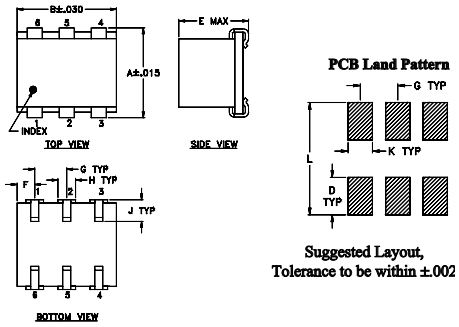
Features

- wideband, 5 to 300 MHz
- high isolation, 33 dB typ.
- low insertion loss, 0.3 dB typ.

Applications

- VHF
- defense & federal communications
- amateur & FM radio

Outline Drawing

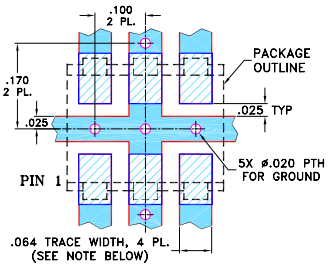


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.280	.310	--	.100	.225	.055	.100
7.11	7.87	--	2.54	5.72	1.40	2.54

H	J	K	L	wt
.047	.065	.065	.300	grams
1.19	1.65	1.65	7.62	0.45

Demo Board MCL P/N: TB-211
Suggested PCB Layout (PL-097)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .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

Electrical Specifications

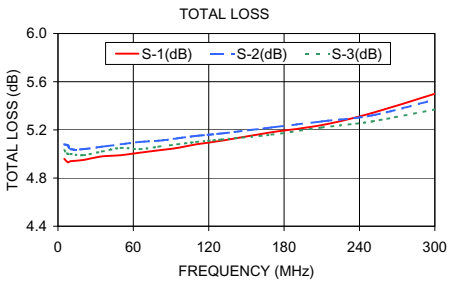
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 4.8 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
5-300	34	25	33	23	32	20	0.3	0.6	0.3	0.7	0.5	1.4	2.0	4.0	6.0	0.4	0.4	0.6

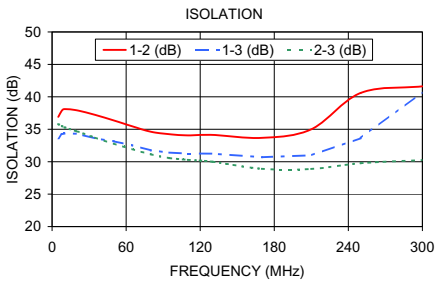
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

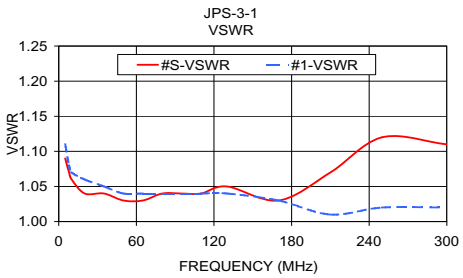
Typical Performance Data

Freq. (MHz)	Total Loss[1] (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
5.00	4.96	5.08	5.03	0.12	36.91	33.62	35.80	0.62	1.09	1.11	1.13	1.16
8.00	4.93	5.07	5.00	0.14	37.89	34.24	35.50	0.52	1.07	1.08	1.10	1.14
10.00	4.94	5.04	5.00	0.11	38.11	34.35	35.29	0.36	1.06	1.07	1.10	1.13
20.00	4.95	5.04	4.99	0.09	37.92	34.31	34.69	0.22	1.04	1.06	1.08	1.12
35.00	4.98	5.06	5.02	0.08	37.22	33.58	33.72	0.13	1.04	1.05	1.07	1.11
50.00	4.99	5.08	5.05	0.09	36.36	33.15	32.78	0.13	1.03	1.04	1.06	1.11
65.00	5.01	5.10	5.04	0.08	35.45	32.52	31.94	0.25	1.03	1.04	1.05	1.11
80.00	5.03	5.11	5.06	0.08	34.62	31.74	31.15	0.26	1.04	1.04	1.05	1.10
95.00	5.05	5.13	5.08	0.08	34.24	31.40	30.56	0.14	1.04	1.04	1.05	1.09
110.00	5.08	5.15	5.10	0.07	34.06	31.26	30.29	0.23	1.04	1.04	1.05	1.09
130.00	5.11	5.17	5.12	0.06	34.13	31.25	29.99	0.37	1.05	1.04	1.05	1.08
170.00	5.18	5.22	5.16	0.05	33.68	30.69	28.91	0.41	1.03	1.03	1.07	1.07
210.00	5.24	5.27	5.22	0.05	35.00	30.99	28.88	0.54	1.07	1.01	1.07	1.07
250.00	5.34	5.32	5.27	0.07	40.60	33.64	29.78	0.57	1.12	1.02	1.08	1.08
300.00	5.50	5.45	5.37	0.12	41.62	40.75	30.25	0.91	1.11	1.02	1.12	1.11

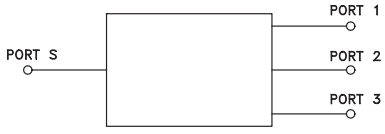
1. Total Loss = Insertion Loss + 4.8dB splitter loss.







electrical schematic



Notes

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