

Surface Mount Power Splitter/Combiner

SBB-2-10+ SBB-2-10

2 Way-0° 50Ω 800 to 1000 MHz



Maximum Ratings

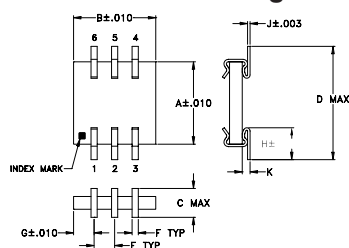
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.25W max.

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

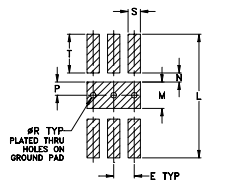
Pin Connections

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

Outline Drawing



PCB Land Pattern

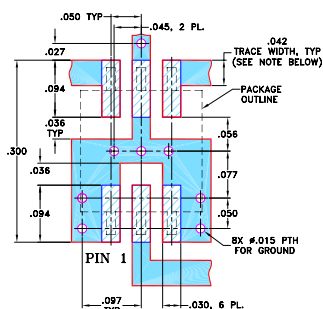


Suggested Layout,
Tolerance to be within ±.002
ADJACENT GROUND PINS SHALL BE CONNECTED
TO EACH OTHER AND TO GROUND PAD

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K
.200	.200	.070	.275	.050	.015	.050	.085	.006	.019
5.08	5.08	1.78	6.99	1.27	0.38	1.27	2.16	0.15	0.48
L	M	N	P	Q	R	S	T	wt	
.300	.064	.022	.032	--	.014	.030	.094	grams	
7.62	1.63	0.56	0.81	--	0.36	0.76	2.39	0.1	

Demo Board MCL P/N: TB-156 Suggested PCB Layout (PL-003)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .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

Features

- very stable performance over temp. range
- excellent insertion loss, 0.6 dB typ.
- excellent isolation, 24 dB typ.
- solder plated leads for excellent solderability and strain relief
- small size, 0.2"X0.275"X0.07"
- very low cost
- aqueous washable
- protected by U.S Patent, 6,819,202

Applications

- cellular/TDMA/CDMA
- ISM

Electrical Specifications

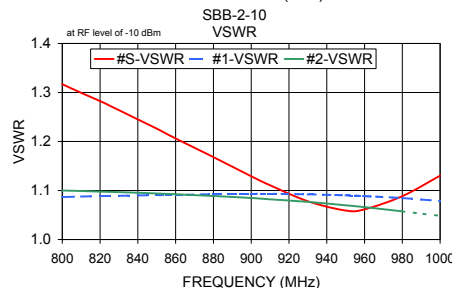
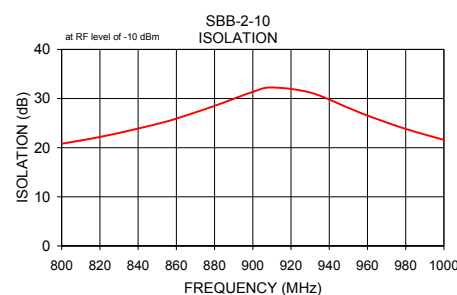
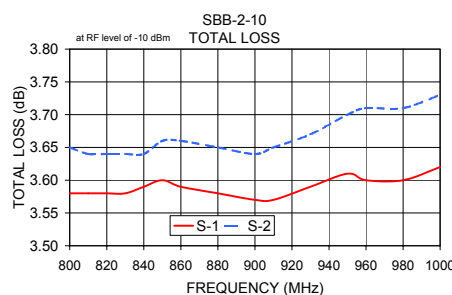
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS ¹ (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min	Typ.	Max.	Max.	Max.
f _L -f _H						
800-1000	24	15	0.6	1.2	3.0	0.3

1. Includes test fixture losses

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
800.00	3.58	3.65	0.07	20.80	0.05	1.32	1.09	1.10
810.00	3.58	3.64	0.06	21.46	0.05	1.30	1.09	1.10
820.00	3.58	3.64	0.06	22.19	0.09	1.28	1.09	1.10
830.00	3.58	3.64	0.06	22.99	0.07	1.26	1.09	1.10
840.00	3.59	3.64	0.05	23.89	0.05	1.25	1.09	1.10
850.00	3.60	3.66	0.06	24.83	0.05	1.23	1.09	1.09
860.00	3.59	3.66	0.07	25.92	0.02	1.21	1.09	1.09
880.00	3.58	3.65	0.07	28.51	0.04	1.17	1.09	1.09
900.00	3.57	3.64	0.08	31.35	0.08	1.13	1.09	1.08
910.00	3.57	3.65	0.08	32.24	0.09	1.11	1.09	1.08
930.00	3.59	3.67	0.07	31.22	0.02	1.08	1.09	1.08
950.00	3.61	3.70	0.09	28.11	0.01	1.06	1.09	1.07
960.00	3.60	3.71	0.11	26.53	0.06	1.06	1.09	1.07
980.00	3.60	3.71	0.11	23.82	0.00	1.09	1.08	1.06

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



electrical schematic



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