

Surface Mount

Power Splitter/Combiner

2 Way-0° 50Ω 1700 to 2100 MHz

SBB-2-21W+
SBB-2-21W



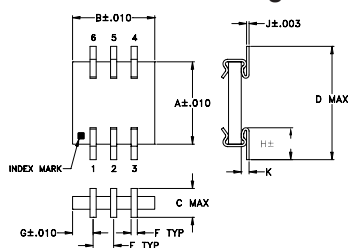
Maximum Ratings

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.	

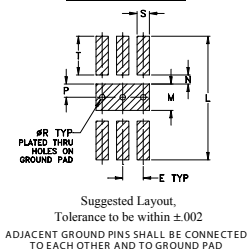
Pin Connections

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

Outline Drawing



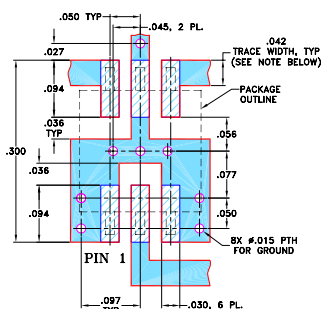
PCB Land Pattern



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	
	.300	.064	.022	.032	--	.014	.030	.094			wt
	7.62	1.63	0.56	0.81	--	0.36	0.76	2.39			grams
											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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- very stable performance over temp. range
- excellent insertion loss, 0.6 dB typ.
- excellent isolation, 22 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

- PCS
- DCS/GSM
- DECT,PHS

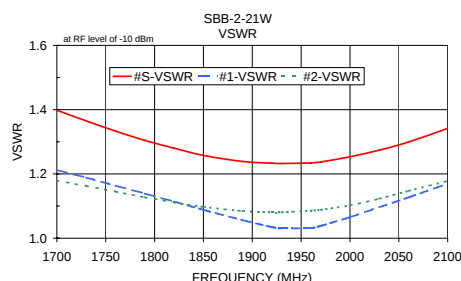
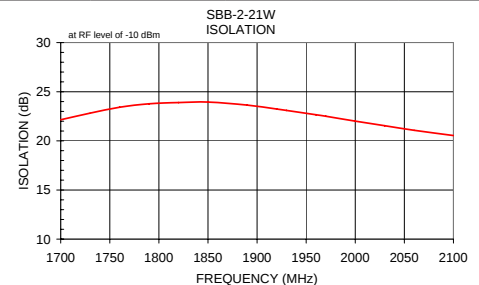
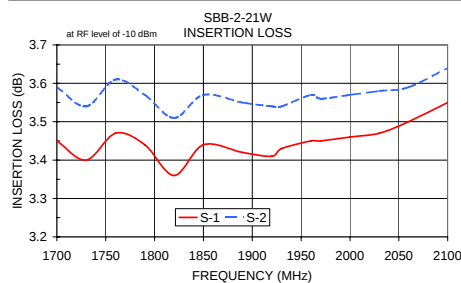
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS ¹ (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
$f_L - f_U$	Typ.	Min.	Typ.	Max.	Max.	Max.
1425-2100	22	15	0.6	1.1	4.0	0.3
1800-2000	24	18	0.5	0.9	4.0	0.3

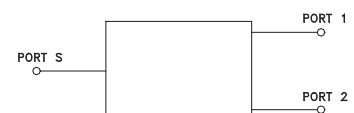
1. Includes test fixture losses

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1700.00	3.45	3.59	0.14	22.15	0.95	1.40	1.21	1.18
1730.00	3.40	3.54	0.15	22.82	1.00	1.37	1.19	1.16
1760.00	3.47	3.61	0.14	23.42	0.94	1.33	1.16	1.15
1790.00	3.44	3.57	0.13	23.77	1.06	1.30	1.14	1.13
1820.00	3.36	3.51	0.14	23.90	1.13	1.28	1.11	1.11
1850.00	3.44	3.57	0.13	23.95	1.07	1.26	1.09	1.10
1890.00	3.42	3.55	0.13	23.64	1.20	1.24	1.06	1.08
1920.00	3.41	3.54	0.13	23.24	1.25	1.23	1.04	1.08
1930.00	3.43	3.54	0.12	23.10	1.22	1.23	1.03	1.08
1960.00	3.45	3.57	0.11	22.66	1.26	1.23	1.03	1.09
1970.00	3.45	3.56	0.11	22.51	1.27	1.24	1.04	1.09
2000.00	3.46	3.57	0.11	22.01	1.35	1.25	1.07	1.10
2030.00	3.47	3.58	0.11	21.54	1.44	1.27	1.10	1.12
2060.00	3.50	3.59	0.10	21.07	1.49	1.30	1.13	1.15
2100.00	3.55	3.64	0.09	20.54	1.51	1.34	1.17	1.18



electrical schematic



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