

Surface Mount Power Splitter/Combiner

SBA-2-22+ SBA-2-22

2 Way-0° 50Ω 2000 to 2600 MHz



Maximum Ratings

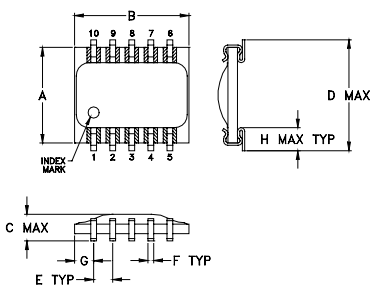
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	2W max.
Internal Dissipation	0.125W max.

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

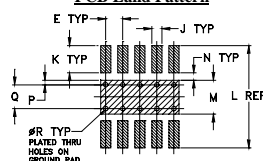
Pin Connections

SUM PORT	3
PORT 1	10
PORT 2	6
GROUND	1,2,4,5,7,8,9

Outline Drawing



PCB Land Pattern

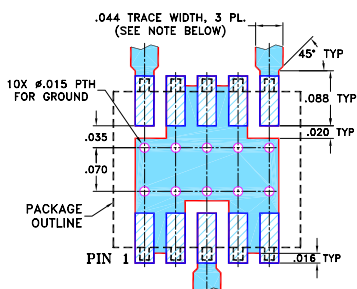


Suggested Layout.
Tolerance to be within ±.002
ADJACENT GROUND PINS SHALL BE CONNECTED
TO EACH OTHER AND TO GROUND PAD

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H		
.250	.300	.095	.290	.050	.015	.050	.060		
6.35	7.62	2.41	7.37	1.27	0.38	1.27	1.52		
J	K	L	M	N	P	Q	R	wt	
.030	.080	.300	.100	.020	.015	.070	.014	grams	
0.76	2.03	7.62	2.54	0.51	0.38	1.78	0.36	0.3	

Demo Board MCL P/N: TB-95 Suggested PCB Layout (PL-070)



- 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

- low profile, 0.07" height
- low insertion loss, 0.8 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.
- solder plated leads for excellent solderability and strain relief
- aqueous washable
- protected by U.S Patent, 5,534,830

Applications

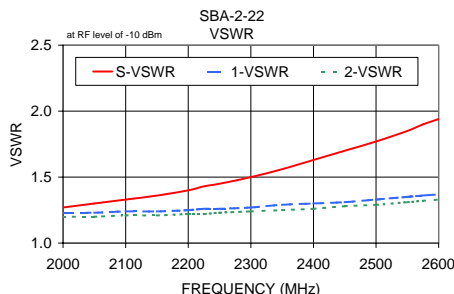
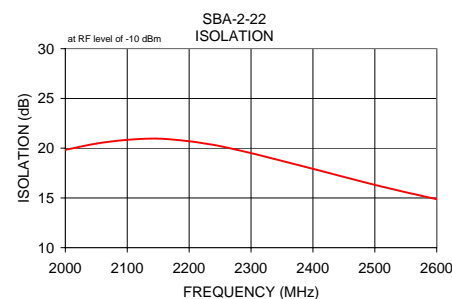
- PCS

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
f_L - f_U						
2000-2600	18	10	0.8	1.6	10	0.8

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						
2000.00	3.63	3.40	0.23	19.83	1.68	1.27	1.23	1.20
2050.00	3.65	3.42	0.23	20.46	1.76	1.30	1.23	1.20
2100.00	3.67	3.45	0.23	20.84	1.80	1.33	1.24	1.21
2150.00	3.70	3.47	0.23	20.96	1.76	1.36	1.24	1.21
2200.00	3.73	3.49	0.24	20.69	1.79	1.40	1.25	1.22
2225.00	3.74	3.50	0.24	20.47	1.83	1.43	1.26	1.22
2250.00	3.76	3.52	0.24	20.20	1.85	1.45	1.26	1.23
2300.00	3.80	3.56	0.24	19.50	1.90	1.50	1.27	1.24
2350.00	3.85	3.61	0.24	18.72	1.95	1.56	1.29	1.25
2400.00	3.90	3.65	0.25	17.92	1.99	1.63	1.30	1.26
2450.00	3.96	3.71	0.25	17.11	2.05	1.70	1.31	1.28
2500.00	4.02	3.77	0.25	16.31	2.12	1.77	1.33	1.29
2550.00	4.09	3.84	0.25	15.57	2.17	1.85	1.35	1.31
2575.00	4.13	3.88	0.25	15.22	2.22	1.90	1.36	1.32
2600.00	4.17	3.92	0.24	14.87	2.26	1.94	1.37	1.33



electrical schematic



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