

# Power Splitter/Combiner

## Features

- low insertion loss, 0.3 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- very good phase unbalance, 1.0 deg. typ.
- temperature stable LTCC base
- small size
- low cost
- aqueous washable

## Applications

- UHF/VHF receivers/transmitters
- cellular

## JY-SBTC-2-20+



2 Way-0° 50Ω 200 to 2000 MHz

## Electrical Specifications at 25°C

Parameter	Frequency(MHz)	Min.	Typ.	Max.	Unit
Frequency Range	-	200		2000	MHz
Insertion Loss Above 3.0 dB	200-2000	-	0.8	2.2	dB
	800-1000		0.5	0.9	
	500-1500		0.5	1.5	
	1800-2000		1.2	2.2	
Isolation	200-2000	14	20	-	dB
	800-1000	16	22		
	500-1500	15	22		
	1800-2000	15	20		
Phase Unbalance	200-2000	-	-	10	Degree
	800-1000			3	
	500-1500			5	
	1800-2000			10	
Amplitude Unbalance	200-2000	-	-	0.8	dB
	800-1000			0.5	
	500-1500			0.7	
	1800-2000			0.6	

## Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max

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

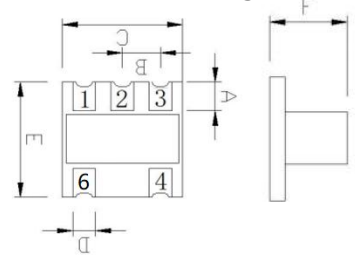
## Pin Connections

SUM PORT	6
PORT 1	3
PORT 2	4
GROUND	1,2
NOT USED	5

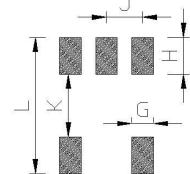
## Functional Schematic



## Outline Drawing



## PCB Land Pattern



Suggested Layout,  
Tolerance to be within ± 0.2

## Outline Dimensions: Unit ( mm )

A	1.00	B	1.27	C	4.35
D	0.76	E	4.26	F	2.50
G	0.76	H	1.30	J	1.27
K	2.21	L	4.81	wt	0.06g

## Typical Performance Data

Frequency (MHz)	Total Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWRS		
	S-1	S-2				S	1	2
200	3.56	3.30	0.26	26.85	1.44	1.38	1.58	1.50
300	3.57	3.36	0.21	39.72	0.88	1.37	1.44	1.40
400	3.55	3.38	0.17	32.31	0.56	1.38	1.35	1.33
500	3.58	3.45	0.13	27.04	0.36	1.37	1.29	1.28
600	3.62	3.52	0.10	23.52	0.22	1.40	1.25	1.25
800	3.58	3.56	0.03	20.65	0.20	1.39	1.17	1.16
1000	3.61	3.68	0.07	19.36	0.41	1.37	1.12	1.08
1200	3.69	3.84	0.15	19.24	0.93	1.34	1.14	1.04
1400	3.76	3.98	0.22	20.40	1.78	1.30	1.23	1.13
1500	3.84	4.07	0.23	21.76	2.34	1.29	1.29	1.18
1600	3.92	4.16	0.24	24.12	2.94	1.28	1.35	1.23
1700	4.02	4.25	0.24	28.51	3.61	1.27	1.40	1.29
1800	4.15	4.36	0.21	31.25	4.31	1.27	1.45	1.34
1900	4.33	4.49	0.18	26.03	4.98	1.32	1.49	1.38
2000	4.57	4.66	0.16	20.75	5.63	1.40	1.51	1.42

