

# Surface Mount Power Splitter/Combiner

## SP-2U+

2 Way-0° 50Ω

2100 to 2300 MHz



### Maximum Ratings

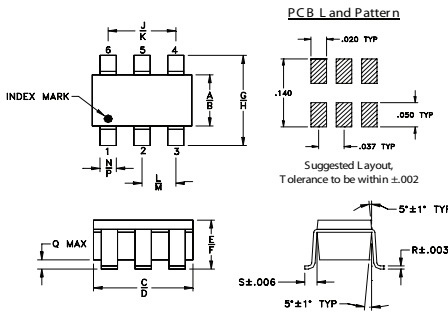
Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Power Input (as a splitter)	1.5W max.
Internal Dissipation	0.75W max.

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

### Pin Connections

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

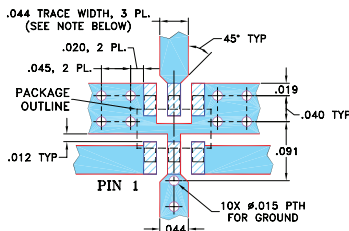
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.052	.067	.106	.122	.035	.064	.087	.118	.067
1.32	1.70	2.69	3.10	0.89	1.63	2.21	3.00	1.70
K	L	M	N	P	Q	R	S	wt
.083	.033	.042	.012	.020	.012	.006	.018	grams
2.11	0.84	1.07	0.30	0.51	0.30	0.15	0.46	0.020

### Demo Board MCL P/N: TB-374 Suggested PCB Layout (PL-232)



### Features

- low insertion loss, 0.5 dB typ.
- good isolation, 24 dB typ.
- excellent output VSWR, 1.05:1 typ.
- excellent power handling, 1.5W
- small size
- aqueous washable

### Applications

- WCDMA
- WIMAX

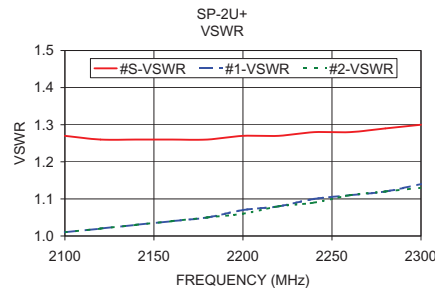
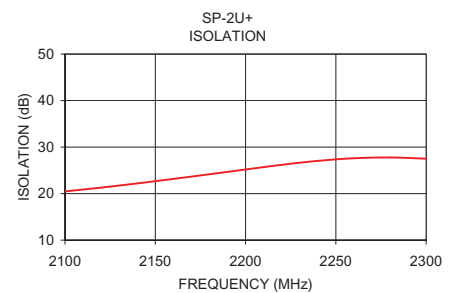
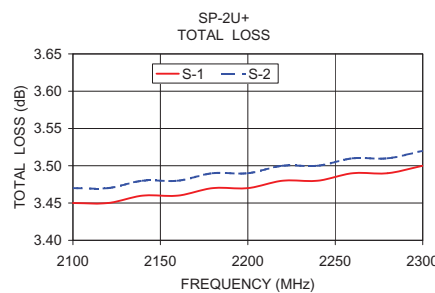
### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
	Typ.	Min.	Typ.	Max.			S-Port Typ.	Output Ports Typ.
2100-2300	24	18	0.5	0.7	3	0.2	1.25	1.05

### Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
2100.00	3.45	3.47	0.02	20.47	0.74	1.27	1.01	1.01
2120.00	3.45	3.47	0.02	21.30	0.75	1.26	1.02	1.02
2140.00	3.46	3.48	0.02	22.20	0.74	1.26	1.03	1.03
2160.00	3.46	3.48	0.02	23.16	0.74	1.26	1.04	1.04
2180.00	3.47	3.49	0.02	24.17	0.74	1.26	1.05	1.05
2200.00	3.47	3.49	0.02	25.19	0.73	1.27	1.07	1.06
2220.00	3.48	3.50	0.02	26.19	0.73	1.27	1.08	1.08
2240.00	3.48	3.50	0.02	27.04	0.73	1.28	1.10	1.09
2260.00	3.49	3.51	0.02	27.60	0.73	1.28	1.11	1.11
2280.00	3.49	3.51	0.02	27.78	0.72	1.29	1.12	1.12
2300.00	3.50	3.52	0.02	27.51	0.73	1.30	1.14	1.13

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



### electrical schematic



### ESD Rating

Human Body Model (HBM): Class 1A (250 v to <500 v) in accordance with ANSI/ESD STM 5.1 - 2001  
 Machine Model (MM): Class M1 (< 100 v) in accordance with ANSI/ESD STM 5.2 - 1999 (pass 50V)



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

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