

Surface Mount Power Splitter/Combiner

SP-2U1+

2 Way-0° 50Ω

2300 to 2500 MHz



Generic photo used for illustration purposes only

CASE STYLE: CA531

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

Features

- low insertion loss, 0.5 dB typ.
- good isolation, 22 dB typ.
- excellent output VSWR, 1.2:1 typ.
- excellent power handling, 1.5W
- small size
- aqueous washable

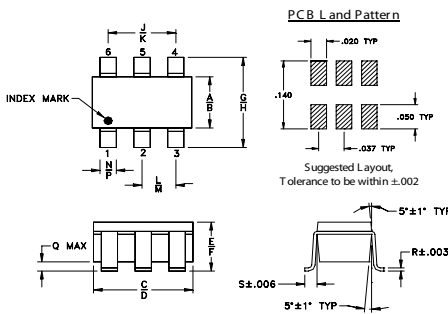
Applications

- bluetooth
- WCDMA
- IEEE 802.11b, g
- Wi-Fi
- ISM

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost
Reel Size Devices/Reel
7" 20, 50, 100, 200, 500, 1000

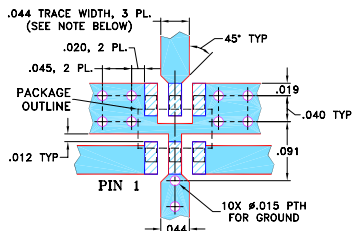
Outline Drawing



Outline Dimensions (inch/mm)

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



Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

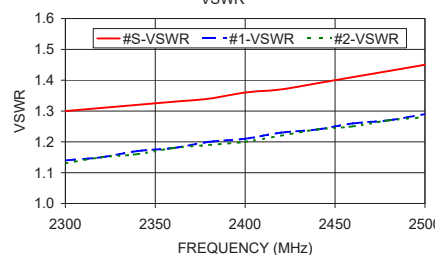
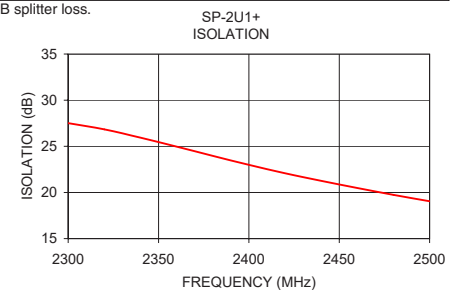
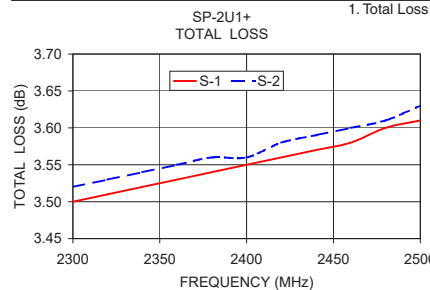
Electrical Specifications

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.
2300-2500	22	16	0.5	0.9	3	0.2	1.35	1.2

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						
2300.00	3.50	3.52	0.02	27.51	0.73	1.30	1.14	1.13
2320.00	3.51	3.53	0.02	26.84	0.74	1.31	1.15	1.15
2340.00	3.52	3.54	0.02	25.94	0.74	1.32	1.17	1.16
2360.00	3.53	3.55	0.02	24.97	0.74	1.33	1.18	1.18
2380.00	3.54	3.56	0.02	23.97	0.74	1.34	1.20	1.19
2400.00	3.55	3.56	0.01	22.99	0.75	1.36	1.21	1.20
2420.00	3.56	3.58	0.02	22.08	0.77	1.37	1.23	1.22
2440.00	3.57	3.59	0.02	21.26	0.80	1.39	1.24	1.24
2460.00	3.58	3.60	0.02	20.48	0.81	1.41	1.26	1.25
2480.00	3.60	3.61	0.02	19.74	0.83	1.43	1.27	1.27
2500.00	3.61	3.63	0.02	19.05	0.83	1.45	1.29	1.28

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)

