

Surface Mount Power Splitter/Combiner

2 Way-0° 50Ω

2875 to 4200 MHz

SP-2W1+



Generic photo used for illustration purposes only

CASE STYLE: CA531

+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

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Power Input (as a splitter)	0.75W max.
Internal Dissipation	0.375W max.

Pin Connections

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

Features

- widebandwidth
- low insertion loss, 0.8 dB typ.
- good isolation, 20 dB typ.
- good output VSWR, 1.3:1 typ.
- small size
- aqueous washable

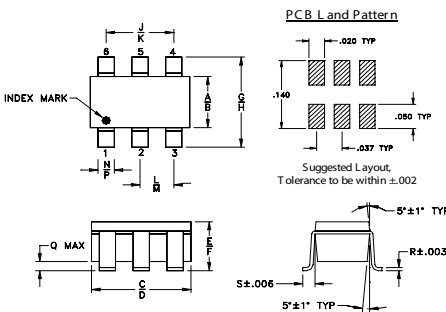
Applications

- WIMAX
- satellite receivers
- defense radar
- line-of-sight links

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.
2875-4200	20	10	0.8	1.4	8	0.2	1.4	1.3

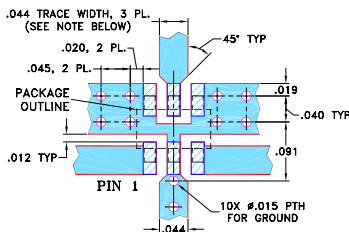
Outline Drawing



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)



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

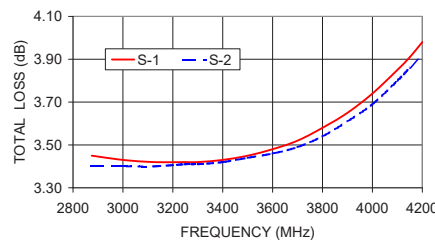
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable electrical test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits 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-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Typical Performance Data

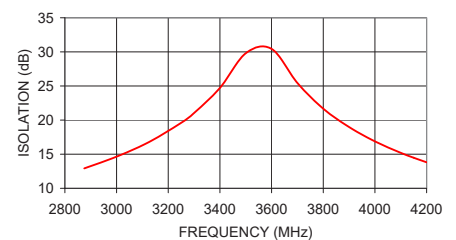
Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
2875.00	3.45	3.40	0.04	12.92	1.27	1.31	1.28	1.27
3000.00	3.43	3.40	0.03	14.64	1.27	1.26	1.21	1.21
3125.00	3.42	3.40	0.02	16.77	1.28	1.22	1.13	1.14
3250.00	3.42	3.41	0.01	19.60	1.27	1.19	1.07	1.08
3300.00	3.42	3.41	0.01	21.04	1.26	1.18	1.04	1.06
3400.00	3.43	3.42	0.01	24.72	1.24	1.18	1.03	1.01
3500.00	3.45	3.44	0.01	29.80	1.21	1.20	1.08	1.05
3600.00	3.48	3.46	0.02	30.44	1.17	1.24	1.14	1.10
3700.00	3.52	3.49	0.03	25.44	1.16	1.30	1.20	1.16
3800.00	3.58	3.54	0.03	21.67	1.15	1.38	1.27	1.22
3900.00	3.65	3.61	0.04	18.98	1.17	1.47	1.34	1.29
4000.00	3.74	3.69	0.04	16.88	1.17	1.59	1.42	1.37
4100.00	3.85	3.80	0.05	15.20	1.19	1.72	1.51	1.45
4150.00	3.91	3.86	0.05	14.48	1.18	1.79	1.55	1.49
4200.00	3.98	3.92	0.06	13.81	1.20	1.87	1.59	1.53

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

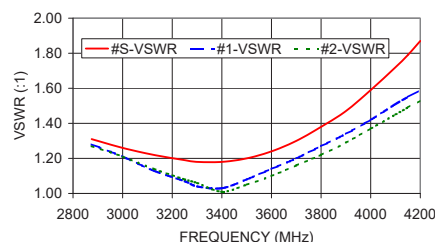
SP-2W1+ TOTAL LOSS



SP-2W1+ ISOLATION



SP-2W1+ VSWR



electrical schematic

