

Surface Mount

Power Splitter/Combiner

SP-2L+

2 Way-0° 50Ω

2700 to 4000 MHz



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

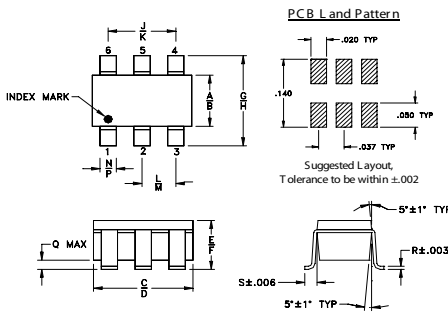
Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Power Input (as a splitter)	0.75W max.
Internal Dissipation	0.375W max.

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

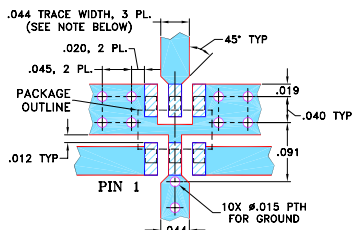
Outline Drawing



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)



- 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

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

Features

- low insertion loss, 0.75 dB typ.
- good isolation, 18 dB typ.
- good output VSWR, 1.3:1 typ.
- excellent power handling, 1.5W
- small size
- aqueous washable

Applications

- WIMAX
- WIMAX local oscillator

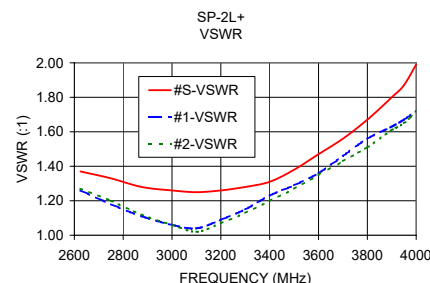
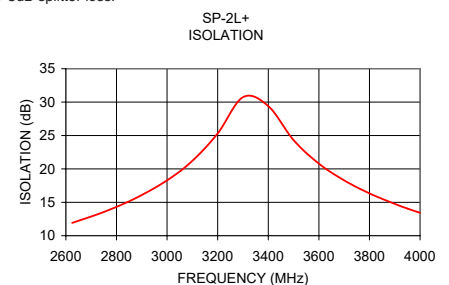
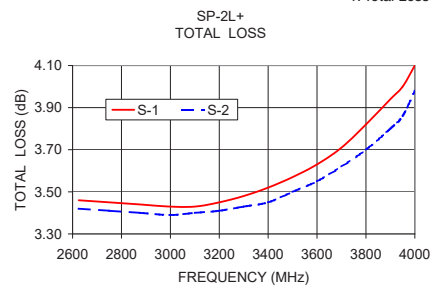
Electrical Specifications

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.
2700-4000	18	10	0.75	1.4	8	0.3	1.5	1.3

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						
2625.00	3.46	3.42	0.03	11.91	0.85	1.37	1.26	1.27
2750.00	3.45	3.41	0.04	13.55	0.95	1.33	1.18	1.20
2875.00	3.44	3.40	0.04	15.61	0.96	1.28	1.11	1.12
3000.00	3.43	3.39	0.03	18.28	0.93	1.26	1.06	1.06
3100.00	3.43	3.40	0.02	21.21	1.01	1.25	1.04	1.02
3200.00	3.45	3.41	0.04	25.31	1.07	1.26	1.09	1.07
3300.00	3.48	3.43	0.05	30.74	1.11	1.28	1.15	1.13
3400.00	3.52	3.45	0.06	29.40	1.11	1.31	1.23	1.20
3500.00	3.57	3.50	0.07	24.32	1.15	1.38	1.29	1.27
3600.00	3.63	3.55	0.08	20.79	1.26	1.47	1.36	1.35
3700.00	3.71	3.62	0.10	18.28	1.33	1.56	1.46	1.43
3800.00	3.82	3.70	0.12	16.33	1.25	1.67	1.56	1.51
3900.00	3.94	3.80	0.14	14.76	1.12	1.80	1.63	1.61
3950.00	4.00	3.86	0.13	14.06	0.97	1.87	1.67	1.65
4000.00	4.10	3.98	0.13	13.43	0.99	1.99	1.72	1.72

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



electrical schematic



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