

Surface Mount Power Splitter/Combiner

SP-2C1+

2 Way-0° 50Ω

640 to 1100 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

Features

- wide bandwidth
- good isolation, 20 dB typ.
- excellent VSWR, 1.25:1 typ.
- excellent power handling, 1.5W
- small size
- aqueous washable

Applications

- cellular
- GSM
- Land Mobile
- ISM
- PDC

CASE STYLE: CA531
PRICE: \$0.96 ea. QTY (25)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

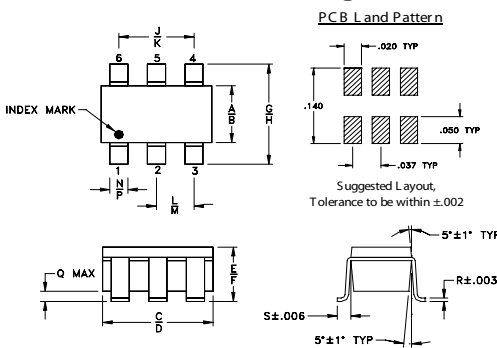
Electrical Specifications

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.
640-1100	20	10	0.4	1.0	2	0.2	1.25	1.25

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
640.00	3.42	3.43	0.01	12.16	0.05	1.39	1.25	1.26
680.00	3.40	3.41	0.01	14.02	0.05	1.34	1.20	1.20
720.00	3.39	3.39	0.01	16.44	0.05	1.29	1.15	1.15
760.00	3.37	3.38	0.01	19.75	0.04	1.24	1.11	1.12
800.00	3.37	3.38	0.01	24.99	0.04	1.20	1.11	1.11
840.00	3.37	3.38	0.01	37.94	0.04	1.17	1.14	1.14
860.00	3.37	3.38	0.01	36.99	0.04	1.16	1.16	1.16
880.00	3.38	3.39	0.01	29.21	0.04	1.17	1.19	1.19
900.00	3.39	3.39	0.01	25.08	0.04	1.17	1.22	1.21
940.00	3.41	3.42	0.01	20.29	0.03	1.21	1.27	1.27
960.00	3.43	3.43	0.01	18.66	0.02	1.24	1.30	1.30
980.00	3.44	3.45	0.01	17.32	0.03	1.27	1.33	1.33
990.00	3.46	3.47	0.01	16.73	0.03	1.29	1.35	1.35
1000.00	3.47	3.48	0.01	16.18	0.03	1.31	1.37	1.36
1100.00	3.64	3.65	0.01	12.18	0.04	1.56	1.52	1.51

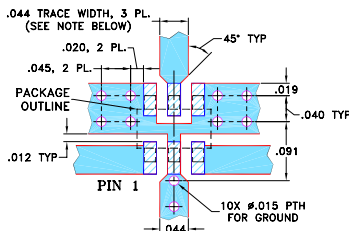
Outline Drawing



Outline Dimensions (inch/mm)

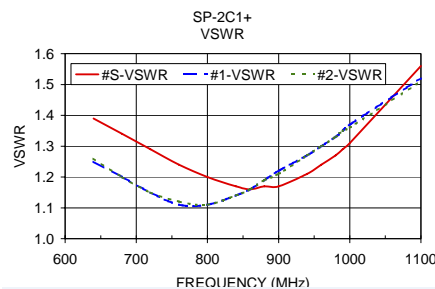
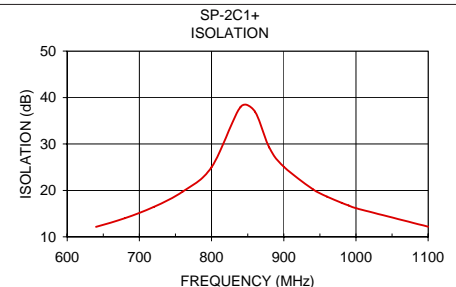
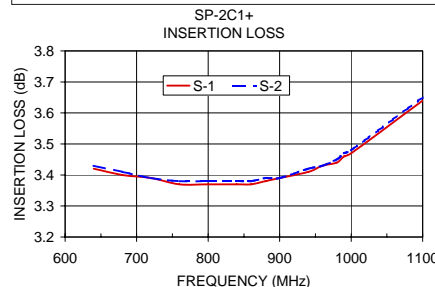
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	wt
.052	.067	.106	.122	.035	.064	.087	.118	.067	.083	.033	.042	.012	.020	.012	.006	.018	grams
1.32	1.70	2.69	3.10	0.89	1.63	2.21	3.00	1.70	2.11	0.84	1.07	0.30	0.51	0.30	0.15	0.46	0.020

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



- NOTES: 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



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)

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IF/RF MICROWAVE COMPONENTS

REV. A
M107210
ED-12348C/1+
SP-2C1+
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