

Surface Mount

Power Splitter/Combiner

SP-2C+

2 Way-0° 50Ω

780 to 960 MHz

Maximum Ratings

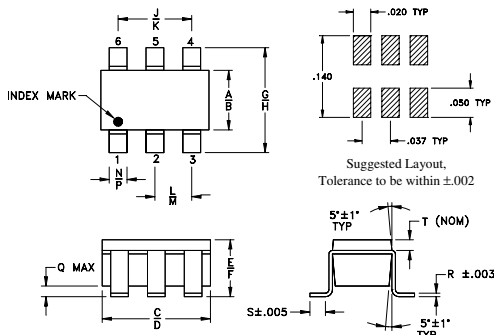
Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Power Input (as a splitter)	1.5W max.
Internal Dissipation	0.75W max.

Pin Connections

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

Outline Drawing

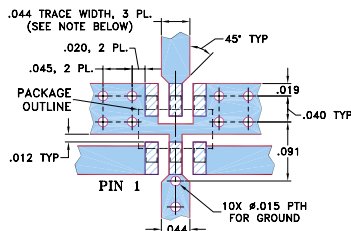
PCB Land Pattern



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
.052	.067	.106	.122	.035	.064	.087	.118	.067	.083	.033	.042	.012	.020	.012	.007	.020	.012	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	0.18	0.51	0.30	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

Features

- low insertion loss, 0.4 dB typ.
- good isolation, 28 dB typ.
- excellent VSWR, 1.20:1 typ.
- excellent power handling, 1.5W
- small size

Applications

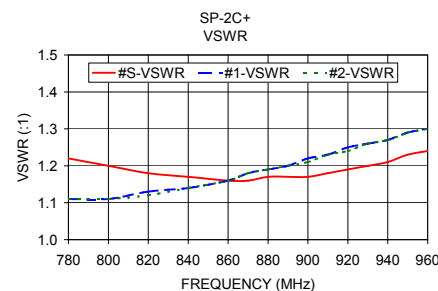
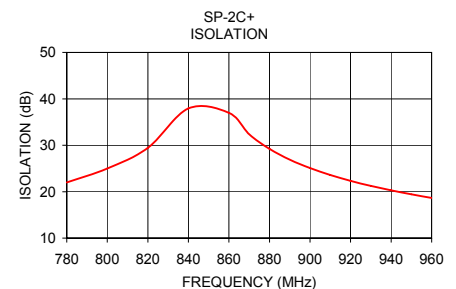
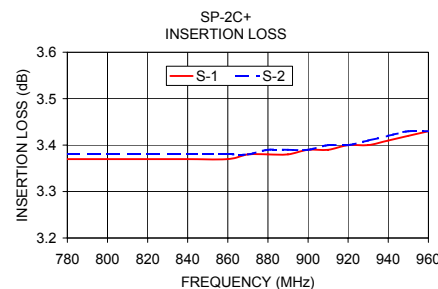
- cellular
- GSM
- Land Mobile
- ISM
- PDC

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.
780-960	28	17	0.4	0.6	2	0.2	1.20	1.20

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						
780.00	3.37	3.38	0.01	22.00	0.05	1.22	1.11	1.11
800.00	3.37	3.38	0.01	24.99	0.04	1.20	1.11	1.11
820.00	3.37	3.38	0.01	29.45	0.04	1.18	1.13	1.12
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
870.00	3.38	3.38	0.01	32.35	0.04	1.16	1.18	1.18
880.00	3.38	3.39	0.01	29.21	0.04	1.17	1.19	1.19
890.00	3.38	3.39	0.01	26.90	0.05	1.17	1.20	1.20
900.00	3.39	3.39	0.01	25.08	0.04	1.17	1.22	1.21
910.00	3.39	3.40	0.01	23.59	0.04	1.18	1.23	1.23
920.00	3.40	3.40	0.01	22.33	0.04	1.19	1.25	1.24
930.00	3.40	3.41	0.01	21.24	0.03	1.20	1.26	1.26
940.00	3.41	3.42	0.01	20.29	0.03	1.21	1.27	1.27
950.00	3.42	3.43	0.01	19.43	0.02	1.23	1.29	1.29
960.00	3.43	3.43	0.01	18.66	0.02	1.24	1.30	1.30



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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REV. A
M107210
ED-12348C/1+
SP-2C+
P/I/LC/CP/AM
060905