

Surface Mount Power Splitter/Combiner

SP-2G+

2 Way-0° 50Ω

1420 to 1660 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, 0.4 dB typ.
- good isolation, 28 dB typ.
- good output VSWR, 1.15:1 typ.
- good input VSWR, 1.25:1 typ.
- excellent power handling, 1.5W
- small size
- aqueous washable

Applications

- GPS
- mobile satellite
- PDC
- defense & aeronautical

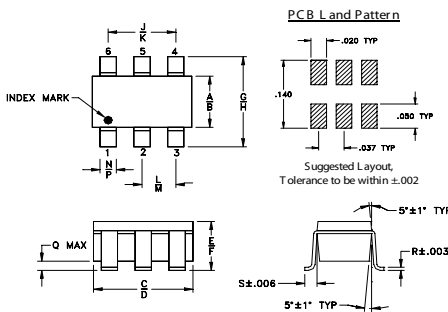
Electrical Specifications

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.
1420-1660	28	19	0.4	0.7	3	0.2	1.25	1.15

+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: 7" Devices/Reel: 20, 50, 100, 200, 500, 1000

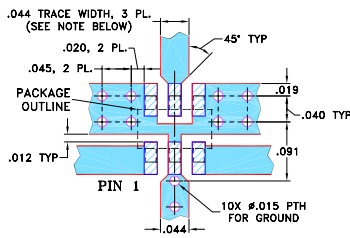
Outline Drawing



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.

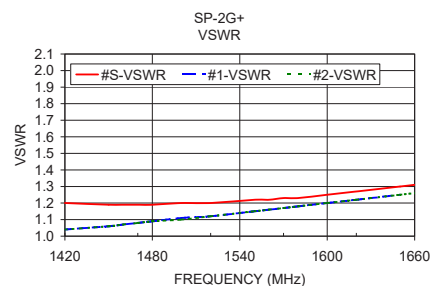
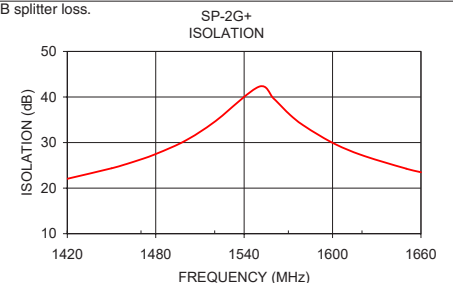
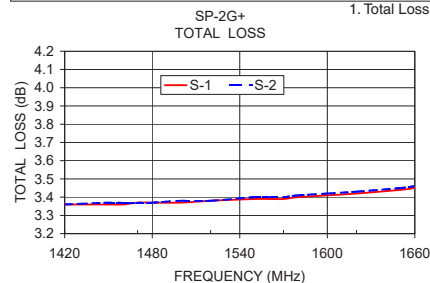
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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.
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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						
1420.00	3.36	3.36	0.00	22.04	0.59	1.20	1.04	1.04
1450.00	3.36	3.37	0.01	24.35	0.60	1.19	1.06	1.06
1460.00	3.36	3.37	0.01	25.28	0.61	1.19	1.07	1.07
1470.00	3.37	3.37	0.01	26.31	0.61	1.19	1.08	1.08
1480.00	3.37	3.37	0.01	27.48	0.62	1.19	1.09	1.09
1500.00	3.37	3.38	0.01	30.39	0.62	1.20	1.11	1.10
1520.00	3.38	3.38	0.01	34.57	0.64	1.20	1.12	1.12
1550.00	3.39	3.40	0.01	42.25	0.65	1.22	1.15	1.15
1560.00	3.39	3.40	0.01	39.67	0.66	1.22	1.16	1.16
1570.00	3.39	3.40	0.01	36.43	0.66	1.23	1.17	1.17
1580.00	3.40	3.41	0.01	33.81	0.66	1.23	1.18	1.18
1600.00	3.41	3.42	0.01	29.95	0.67	1.25	1.20	1.20
1620.00	3.42	3.43	0.01	27.22	0.68	1.27	1.22	1.22
1650.00	3.44	3.45	0.01	24.27	0.69	1.30	1.25	1.25
1660.00	3.45	3.46	0.01	23.48	0.69	1.31	1.26	1.26

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)

