

Power Splitter/Combiner

SP-2G+

2 Way-0° 50Ω

1420 to 1660 MHz



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

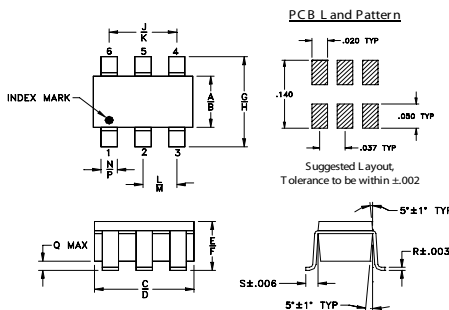
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
	Typ.	Min.	Typ.	Max.			S-Port Typ.	Output Ports Typ.
1420-1660	28	19	0.4	0.7	3	0.2	1.25	1.15

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.

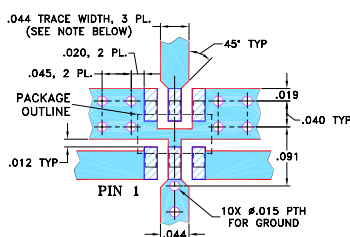
Outline Drawing



Outline Dimensions (inch)

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.

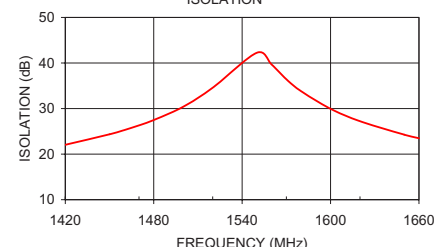
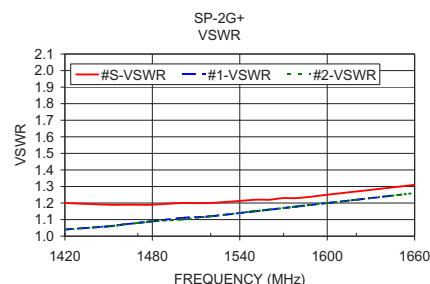
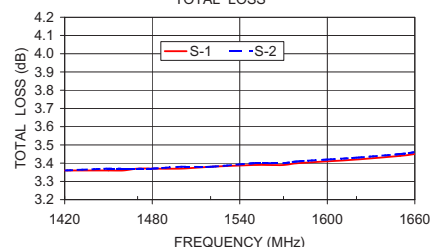
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electrical schematic



REV. B
M151107
ED-12593/2+
SP-2G+
RS/LC/CP/AM
151005