



SURFACE MOUNT

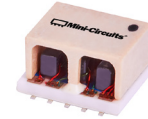
Power Splitter/Combiner

SCA-4-132+

4 Way-0° 50Ω 5 to 1300 MHz

THE BIG DEAL

- Wideband, 5 to 1300 MHz
- High isolation, 25 dB
- Good matching VSWR, 1.2:1
- Excellent amplitude unbalance, 0.3 dB



Generic photo used for illustration purposes only

CASE STYLE: DZ943

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our website for methodologies and qualifications

APPLICATIONS

- Cellular
- UHF/VHF receivers/transmitters

PRODUCT OVERVIEW

Mini-Circuits' SCA-4-132+ is a surface-mount 4-way 0° splitter/combiner covering the 5 to 1300 MHz frequency range, supporting bandwidth requirements for cellular, UHF/VHF receivers/transmitters and more. This model can handle up to 0.5W RF input power as a splitter and provides high isolation, good VSWR and low amplitude unbalance. The unit comes housed in a miniature plastic package (0.35 x 0.28 x 0.20") mounted on a 10-lead ceramic base with wrap-around terminations for excellent solderability.

KEY FEATURES

Feature	Advantages
Wideband, 5 to 1300 MHz	Suitable for many broadband applications.
Low insertion loss, 1.2 dB	The combination of 0.5W power handling and low insertion loss makes this model a suitable candidate for distributing signals while maintaining excellent transmission of signal power.
Good matching VSWR, 1.2:1	Provides excellent thru-path transmission with low signal reflection.
High isolation, 25 dB	Minimizes interference between input ports.
Low amplitude unbalance, 0.3 dB	Low amplitude unbalance makes this splitter/combiner Ideal for parallel path/multichannel systems.





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ELECTRICAL SPECIFICATIONS AT 25°C¹

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		5		1300	MHz
Insertion Loss, above 6.0 dB	5-500		0.8	1.5	dB
	500-1000		1.2	2.4	
	1000-1300		2.0	2.8	
Isolation	5-1000	15	21		dB
	1000-1300	13	18		
Phase Unbalance	5-500		2.0	5	Degree
	500-1000		4.0	11	
	1000-1300		8.0	15	
Amplitude Unbalance	5-1000		0.5	0.9	dB
	1000-1300		0.7	1.2	
VSWR (Port S)	5-500		1.22	1.32	:1
	500-1300		1.28	1.49	
VSWR (Port 1-4)	5-500		1.57	1.79	:1
	500-1300		1.40	1.65	

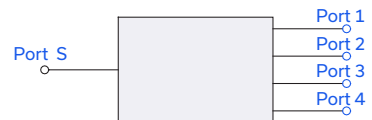
1. Tested on Evaluation Board TB-SCA-4-132+

MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.375W max.

Permanent damage may occur if any of these limits are exceeded.

ELECTRICAL SCHEMATIC





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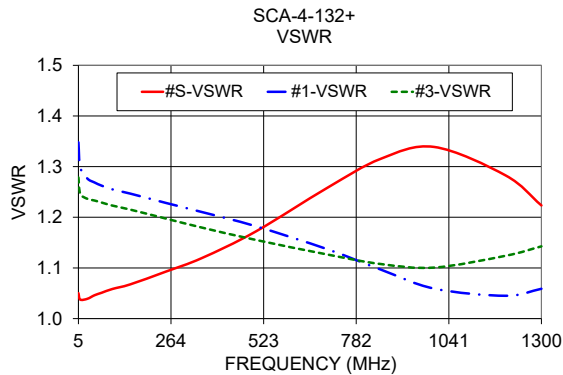
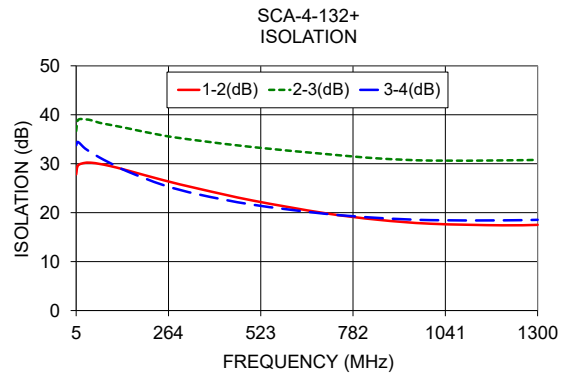
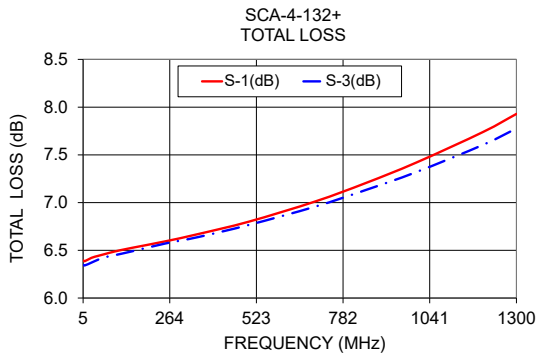
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TYPICAL PERFORMANCE DATA

Frequency (MHz)	Total Loss ¹ (dB)				Amplitude Unbalance (dB)	Isolation (dB)			Phase Unbalance (deg.)	VSWR (:1)				
	S-1	S-2	S-3	S-4		1-2	1-3	2-3		S	1	2	3	4
5	6.40	6.23	6.35	6.50	0.27	27.82	36.68	33.76	0.60	1.05	1.35	1.30	1.28	1.33
10	6.39	6.23	6.34	6.49	0.26	29.62	38.90	34.44	0.27	1.04	1.30	1.25	1.25	1.29
30	6.42	6.26	6.37	6.53	0.27	30.18	39.07	33.10	0.16	1.04	1.28	1.23	1.24	1.28
50	6.44	6.29	6.40	6.56	0.27	30.18	38.82	32.17	0.20	1.05	1.27	1.23	1.23	1.27
70	6.46	6.31	6.43	6.58	0.27	29.96	38.36	31.29	0.19	1.05	1.26	1.22	1.23	1.27
100	6.49	6.34	6.45	6.61	0.27	29.53	37.94	30.15	0.28	1.06	1.26	1.22	1.22	1.26
150	6.52	6.37	6.49	6.65	0.28	28.61	37.22	28.39	0.32	1.07	1.25	1.21	1.22	1.25
250	6.59	6.45	6.57	6.72	0.28	26.62	35.74	25.63	0.50	1.09	1.23	1.20	1.20	1.23
350	6.67	6.52	6.64	6.80	0.28	24.87	34.71	23.70	0.63	1.12	1.21	1.19	1.18	1.21
500	6.80	6.63	6.77	6.94	0.30	22.48	33.40	21.63	0.85	1.17	1.18	1.18	1.16	1.17
700	7.01	6.82	6.96	7.14	0.31	19.93	32.01	19.80	1.16	1.26	1.14	1.15	1.13	1.11
850	7.21	6.99	7.13	7.30	0.32	18.56	31.09	18.94	1.37	1.32	1.10	1.12	1.11	1.06
1000	7.42	7.17	7.32	7.49	0.32	17.74	30.64	18.47	1.65	1.34	1.06	1.09	1.10	1.03
1200	7.74	7.47	7.60	7.76	0.29	17.42	30.68	18.43	2.06	1.28	1.04	1.10	1.12	1.07
1300	7.93	7.65	7.78	7.91	0.28	17.51	30.78	18.54	2.29	1.22	1.06	1.13	1.14	1.10

1. Total Loss = Insertion Loss + 6.0 dB splitter loss.



- 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.
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