

DC Pass, High Power

# Power Splitter/Combiner ZC8PD-5R263-S+

8 Way-0° 50Ω 500 to 26500 MHz

## The Big Deal

- Super wideband, 0.5 to 26.5 GHz
- High Isolation, 35 dB typ.
- Low amplitude unbalance, 0.2 dB typ.
- 20W power handling



CASE STYLE: UU2415-1

## Product Overview

Mini-Circuits' ZC8PD-5R263-S+ is a super wideband 8-way 0° splitter/combiner providing coverage from 0.5 to 26.5 GHz, supporting a wide range of applications including 5G, L-Band, S-Band, X-band, Ku-Band, K-Band, instrumentation and many more. This model provides 20W power handling as a splitter and very low insertion loss across the entire operating frequency range, minimizing power dissipation and delivering excellent signal power transmission from input to output. The ZC8PD-5R263-S+ comes housed in a case measuring 4.64 x 6.37 x 0.5" with super SMA connectors.

## Key Features

Feature	Advantages
Super wideband, 0.5 to 26.5 GHz	Extremely wide frequency range supports many broadband applications in a single model.
High isolation, 35 dB typ.	Minimizes interference between ports.
High power handling: <ul style="list-style-type: none"><li>• 20W as a splitter at 25°C</li><li>• 4.7W as a combiner</li></ul>	The ZC8PD-5R263-S+ is suitable for systems with a wide range of power requirements.
Low amplitude unbalance, 0.2 dB	Produces nearly equal output signals, ideal for parallel path and multichannel systems.
DC Passing, 530mA	Supports applications where DC power is needed through the RF line.

### 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.  
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



# DC Pass, High Power Power Splitter/Combiner

## ZC8PD-5R263-S+

8 Way-0° 50Ω 500 to 26500 MHz

### Maximum Ratings

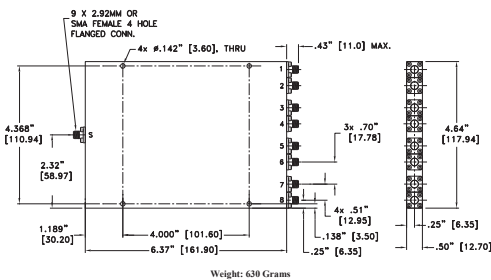
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	20W* max.
Internal Dissipation	4.7W max.
DC Current	530 mA

Permanent damage may occur if any of these limits are exceeded.  
\* Derate linearly to 14W at 100°C

### Coaxial Connections

Sum Port	S
Port 1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8

### Outline Drawing



### Features

- Super wideband, 500 - 26500 MHz
- Low amplitude unbalance, 0.2 dB typ.
- Excellent VSWR, 1.16:1 typ.
- High isolation, 35 dB typ.

### Applications

- Fixed satellite
- 5G
- Mobile
- Space research



Generic photo used for illustration purposes only

CASE STYLE: UU2415-1

Connectors	Model
SMA-Fem	ZC8PD-5R263-S+

+RoHS Compliant

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

### Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		500		26500	MHz
<b>Insertion Loss Above 9.0 dB</b>	500-8000		1.9	3.4	
	8000-18000		4.1	5.8	dB
	18000-26500		6.3	8.0	
<b>Isolation</b>	500-8000	14	30		
	8000-18000	18	35		dB
	18000-26500	18	36		
<b>Phase Unbalance (±)¹</b>	500-8000		1.3	4	
	8000-18000		3.1	5	Degree
	18000-26500		5	7	
<b>Amplitude Unbalance (±)¹</b>	500-8000		0.16	0.5	
	8000-18000		0.20	0.5	dB
	18000-26500		0.26	0.5	
<b>VSWR (Port S)</b>	500-8000		1.16	1.6	
	8000-18000		1.16	1.6	:1
	18000-26500		1.16	1.6	
<b>VSWR (Port 1-8)</b>	500-8000		1.1	1.6	
	8000-18000		1.1	1.5	:1
	18000-26500		1.18	1.6	

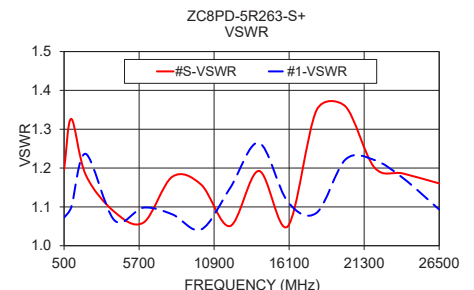
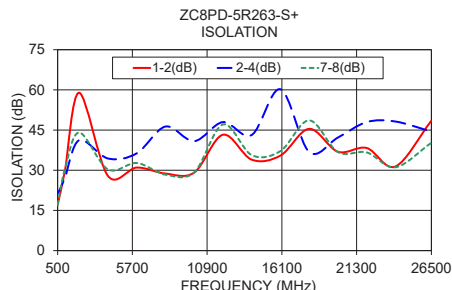
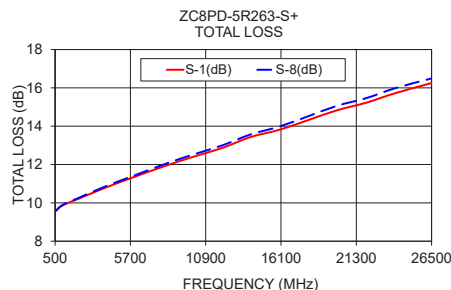
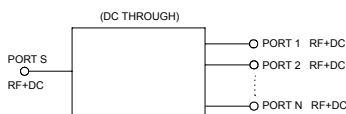
1. With reference to average

### Typical Performance Data

Freq. (MHz)	Total Loss¹ (dB)						Amp. Unbal. (dB)	Isolation (dB)				Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	2-4	5-7	7-8				
500	9.55	9.55	9.54	9.55	9.55	9.55	0.01	17.14	21.19	21.71	16.99	0.32	1.20	1.07	1.09
1000	9.86	9.86	9.87	9.87	9.87	9.88	0.02	29.50	27.07	27.33	30.20	0.37	1.33	1.10	1.11
2000	10.18	10.19	10.20	10.20	10.22	10.22	0.04	58.92	41.22	40.75	44.07	0.52	1.18	1.24	1.23
4000	10.80	10.79	10.82	10.84	10.85	10.87	0.08	27.88	34.39	36.25	30.31	0.68	1.09	1.07	1.07
6000	11.36	11.34	11.40	11.43	11.44	11.44	0.10	30.99	36.29	36.68	32.70	0.91	1.06	1.10	1.11
8000	11.90	11.87	11.95	12.00	12.00	12.00	0.14	28.76	46.30	45.88	28.34	1.20	1.18	1.08	1.08
10000	12.40	12.36	12.46	12.53	12.50	12.51	0.17	29.11	40.85	41.52	29.19	1.37	1.16	1.04	1.04
12000	12.85	12.81	12.93	13.00	12.98	12.99	0.19	43.25	47.97	44.96	47.08	1.58	1.05	1.15	1.14
14000	13.43	13.38	13.54	13.62	13.58	13.57	0.24	33.94	43.16	43.11	35.65	1.77	1.19	1.27	1.25
16000	13.82	13.76	13.94	14.01	13.98	13.98	0.25	35.46	60.23	50.43	37.16	2.00	1.05	1.11	1.09
18000	14.33	14.27	14.47	14.56	14.51	14.52	0.28	45.45	36.83	37.56	48.61	2.09	1.35	1.08	1.09
20000	14.84	14.79	15.03	15.09	15.05	15.07	0.30	36.90	42.20	39.77	36.78	2.18	1.36	1.22	1.25
22000	15.23	15.18	15.48	15.51	15.48	15.47	0.34	38.30	47.97	54.47	36.66	2.24	1.20	1.22	1.23
24000	15.73	15.70	15.98	16.04	15.99	15.99	0.34	31.40	48.18	45.25	31.11	2.30	1.19	1.17	1.19
26500	16.25	16.22	16.53	16.54	16.48	16.49	0.32	48.47	44.45	44.94	40.25	2.79	1.16	1.09	1.10

1. Total Loss = Insertion Loss + 9dB splitter loss.

### Electrical Schematic



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