

DC Pass, High Power

# Power Splitter/Combiner ZC8PD-02263-S+

8 Way-0° 50Ω 2000 to 26500 MHz

## The Big Deal

- Super wideband, 2 to 26.5 GHz
- Low insertion loss, 2.1 dB typ.
- High Isolation, 31 dB typ.
- 20W power handling
- Low amplitude unbalance, 0.11 dB typ.



CASE STYLE: UU2415-3

## Product Overview

Mini-Circuits' ZC8PD-02263-S+ is a super wideband 8-way 0° splitter/combiner providing coverage from 2 to 26.5 GHz, supporting a wide range of applications including 5G, 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-02263-S+ comes housed in a case measuring 4.64 x 3.5 x 0.5" with super SMA connectors.

## Key Features

Feature	Advantages
Ultra-wideband, 2 to 26.5 GHz	Extremely wide frequency range supports many broadband applications in a single model.
Low insertion loss, 2.1 dB typ.	The combination of 20W power handling and low insertion loss makes this model a suitable candidate for distributing signals while maintaining excellent transmission of signal power.
High isolation, 31 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>• 2.8W as a combiner</li></ul>	The ZC8PD-02263-S+ is suitable for systems with a wide range of power requirements.
Low amplitude unbalance, 0.11 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

8 Way-0° 50Ω 2000 to 26500 MHz

## ZC8PD-02263-S+



Generic photo used for illustration purposes only

CASE STYLE: UU2415-3

Connectors Model  
SMA-Fem ZC8PD-02263-S+

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

### Maximum Ratings

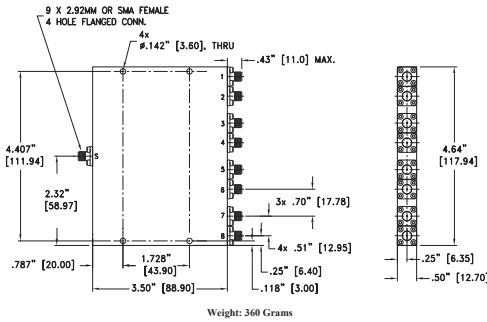
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	20W* max.
Internal Dissipation	2.8W max.
DC Current	530 mA

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, 2000 - 26500 MHz
- Low insertion loss, 2.1 dB typ.
- Low amplitude unbalance, 0.11 dB typ.
- Excellent VSWR, 1.16:1 typ.
- High isolation, 31 dB typ.

### Applications

- Fixed satellite
- 5G
- Mobile
- Space research

### Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		2000		26500	MHz
<b>Insertion Loss Above 9.0 dB</b>	2000-8000		1.0	1.7	
	8000-18000		2.1	3.0	dB
	18000-26500		3.2	3.9	
<b>Isolation</b>	2000-8000	16	25		
	8000-18000	18	31		dB
	18000-26500	18	34		
<b>Phase Unbalance (±)°</b>	2000-8000		1.0	3	
	8000-18000		2.3	5	Degree
	18000-26500		3.8	6	
<b>Amplitude Unbalance (±)°</b>	2000-8000		0.07	0.3	
	8000-18000		0.11	0.4	dB
	18000-26500		0.19	0.5	
<b>VSWR (Port S)</b>	2000-8000		1.13	1.5	
	8000-18000		1.16	1.6	:1
	18000-26500		1.15	1.6	
<b>VSWR (Port 1-8)</b>	2000-8000		1.13	1.5	
	8000-18000		1.12	1.5	:1
	18000-26500		1.11	1.5	

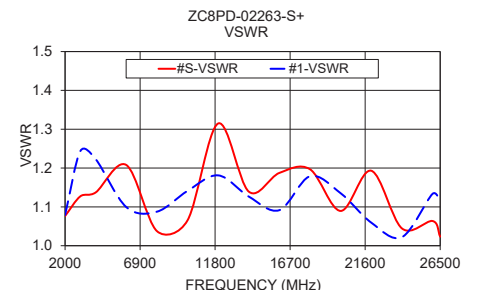
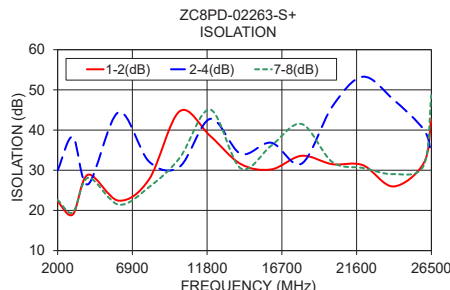
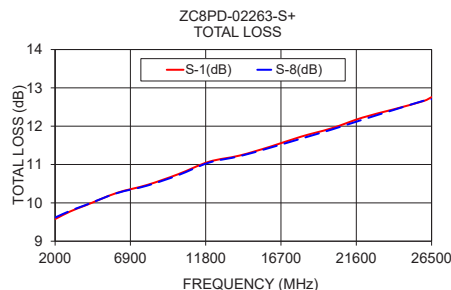
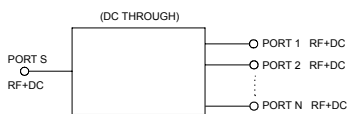
1. With reference to average.

### Typical Performance Data

Freq. (MHz)	Total Loss <sup>2</sup> (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				
2000	9.58	9.61	9.63	9.59	9.61	9.62	0.06	22.17	29.94	31.12	22.60	0.44	1.08	1.08	1.14
3000	9.78	9.82	9.79	9.75	9.80	9.80	0.07	19.01	38.29	40.97	19.53	0.78	1.13	1.24	1.24
4000	9.94	9.97	9.96	9.91	9.94	9.95	0.05	28.89	26.51	26.56	28.13	0.75	1.14	1.22	1.19
6000	10.26	10.29	10.27	10.22	10.27	10.25	0.07	22.43	44.45	46.55	21.44	1.37	1.21	1.10	1.08
8000	10.47	10.51	10.48	10.44	10.48	10.45	0.06	27.76	32.13	30.58	25.81	1.59	1.04	1.09	1.06
10000	10.75	10.80	10.74	10.70	10.74	10.72	0.10	44.67	30.88	33.78	33.05	2.15	1.07	1.14	1.15
12000	11.07	11.13	11.08	11.03	11.08	11.05	0.11	38.55	42.78	44.82	45.08	2.35	1.31	1.18	1.21
14000	11.23	11.30	11.26	11.22	11.26	11.22	0.09	31.56	34.09	35.46	30.47	2.86	1.14	1.13	1.16
16000	11.47	11.54	11.45	11.42	11.48	11.44	0.12	30.20	36.84	33.53	36.09	3.36	1.19	1.09	1.07
18000	11.73	11.80	11.71	11.68	11.70	11.67	0.16	33.60	31.65	32.09	41.50	3.48	1.20	1.18	1.12
20000	11.95	12.04	11.93	11.91	11.95	11.91	0.16	31.50	45.82	41.71	32.06	4.06	1.09	1.14	1.07
22000	12.22	12.31	12.16	12.15	12.19	12.17	0.19	31.28	53.27	63.92	30.57	4.26	1.19	1.06	1.02
24000	12.44	12.55	12.40	12.40	12.41	12.42	0.23	25.96	47.63	50.30	29.04	4.93	1.04	1.02	1.06
26000	12.66	12.76	12.64	12.64	12.68	12.67	0.17	31.76	40.10	40.56	31.19	5.15	1.06	1.13	1.11
26500	12.76	12.87	12.68	12.69	12.70	12.70	0.26	42.60	34.22	33.80	48.64	5.61	1.02	1.12	1.15

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

### Electrical Schematic



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- 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/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)



[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. A  
ECO-003514  
ZC8PD-02263-S+  
GY/CP/AM  
200730  
Page 2 of 2