DC Pass, High Power

Power Splitter/Combiner ZC8PD-01263-S+

8 Way-0° 50Ω 1000 to 26500 MHz

The Big Deal

- Ultra wideband, 1 to 26.5 GHz
- Low insertion loss, 3.2 dB typ.
- High Isolation, 26 dB typ.
- Low amplitude unbalance, 0.14 dB typ.
- 20W power handling

CASE STYLE: UU2415-2

Product Overview

Mini-Circuits' ZC8PD-01263-S+ is an ultra wideband 8-way 0˚ splitter/combiner providing coverage from 1 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-01263-S+ comes housed in a case measuring 4.64 x 4.33 x 0.5" with super SMA connectors.

Key Features

Feature	Advantages
Ultra-wideband, 1 to 26.5 GHz	Extremely wide frequency range supports many broadband applications in a single model.
High isolation, 26 dB typ.	Minimizes interference between ports.
High power handling: • 20W as a splitter at 25°C • 4.7W as a combiner	The ZC8PD-01263-S+ is suitable for systems with a wide range of power requirements.
Low amplitude unbalance, 0.14 dB	Produces nearly equal output signals, ideal for parallel path and multichannel systems.
DC Passing, 447mA	Supports applications where DC power is needed through the RF line.

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Power Splitter/Combiner

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Generic photo used for illustration purposes only

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Connectors	Model
SMA-Fem	ZC8PD-01263-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	4.7W max.
DC Current	447mA

Permanent damage may occur if any of these limits are exceeded.
* Derate linearly to 10W 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

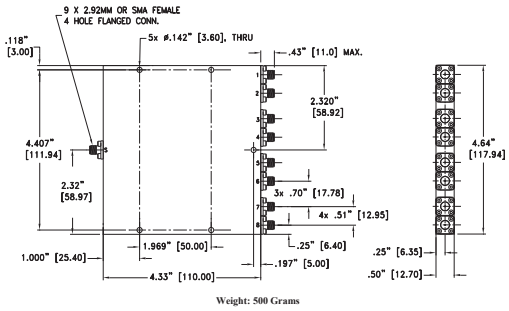
Features

- Ultra wideband, 1000 - 26500 MHz
- Low amplitude unbalance, 0.14 dB typ.
- Excellent VSWR, 1.33:1 typ.
- High isolation, 26 dB typ.

Applications

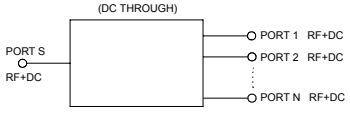
- Fixed satellite
- 5G
- Mobile
- Space research

Outline Drawing



Weight: 500 Grams

Electrical Schematic



Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		1000		26500	MHz
Insertion Loss Above 9.0 dB	1000-8000		1.6	2.7	dB
	8000-18000		3.2	4.5	
	18000-26500		4.7	5.8	
Isolation	1000-8000	16	21		dB
	8000-18000	18	26		
	18000-26500	18	29		
Phase Unbalance (±)[1]	1000-8000		1.4	4	Degree
	8000-18000		2.9	9	
	18000-26500		4.4	12	
Amplitude Unbalance (±)[1]	1000-8000		0.11	0.4	dB
	8000-18000		0.14	0.5	
	18000-26500		0.22	0.6	
VSWR (Port S)	1000-8000		1.36	1.6	:1
	8000-18000		1.33	1.6	
	18000-26500		1.25	1.6	
VSWR (Port 1-8)	1000-8000		1.28	1.5	:1
	8000-18000		1.22	1.5	
	18000-26500		1.23	1.6	

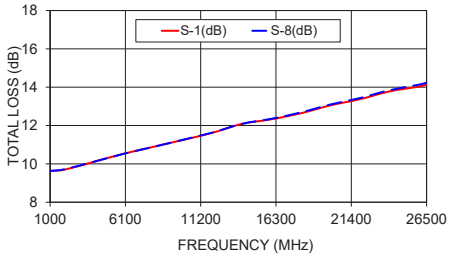
1. With reference to average

Typical Performance Data

Freq. (MHz)	Total Loss[1] (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				
1000	9.63	9.66	9.64	9.62	9.63	9.63	0.04	22.33	25.17	25.17	21.81	0.11	1.48	1.46	1.47
2000	9.70	9.73	9.71	9.68	9.73	9.72	0.05	39.45	45.83	55.51	32.49	0.29	1.08	1.30	1.32
4000	10.12	10.12	10.14	10.11	10.13	10.12	0.04	24.39	31.60	31.22	22.96	0.48	1.02	1.12	1.14
6000	10.53	10.53	10.56	10.53	10.53	10.53	0.03	35.56	37.65	36.56	33.08	0.66	1.15	1.07	1.07
8000	10.89	10.90	10.93	10.88	10.90	10.89	0.05	23.58	39.04	40.28	22.87	0.85	1.10	1.08	1.09
10000	11.25	11.24	11.31	11.26	11.25	11.26	0.08	28.00	36.07	38.16	26.35	0.90	1.11	1.11	1.09
12000	11.62	11.61	11.70	11.64	11.62	11.63	0.10	34.67	36.59	36.60	33.16	1.12	1.17	1.16	1.18
14000	12.09	12.07	12.19	12.12	12.07	12.09	0.12	27.86	35.58	34.05	29.56	1.28	1.42	1.15	1.10
16000	12.33	12.33	12.43	12.36	12.33	12.35	0.10	32.27	38.36	39.77	34.19	1.42	1.25	1.04	1.02
18000	12.64	12.66	12.76	12.67	12.66	12.69	0.11	28.67	52.70	45.17	28.03	1.53	1.09	1.19	1.25
20000	13.06	13.06	13.17	13.08	13.06	13.10	0.12	32.49	47.41	44.03	31.38	1.64	1.26	1.21	1.23
22000	13.38	13.37	13.51	13.40	13.38	13.43	0.13	36.12	47.49	50.53	37.10	1.80	1.14	1.08	1.09
24000	13.78	13.80	13.94	13.84	13.74	13.84	0.20	31.44	44.71	45.19	31.66	2.02	1.06	1.12	1.12
26000	14.03	14.06	14.21	14.12	14.02	14.13	0.19	35.11	45.39	43.54	32.98	2.28	1.02	1.05	1.08
26500	14.13	14.14	14.33	14.26	14.17	14.24	0.19	48.86	43.28	40.84	38.84	2.03	1.18	1.08	1.07

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

ZC8PD-01263-S+
TOTAL LOSS



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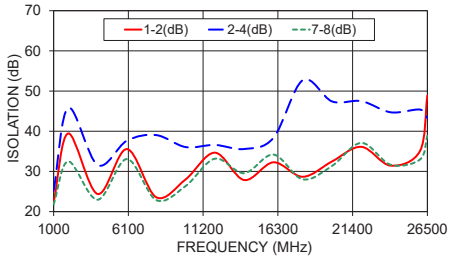
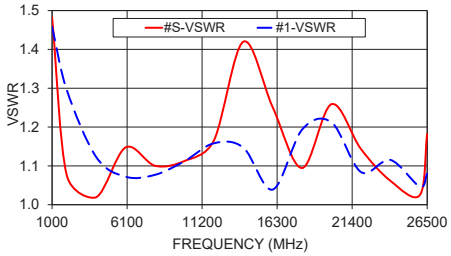
ISOLATION



ZC8PD-01263-S+
VSWR



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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