DC Pass, High Power

Power Splitter/Combiner ZC8PD-18263-S+

8 Way-0° 50Ω 18000 to 26500 MHz

The Big Deal

- Wideband, 18 to 26.5 GHz
- Low insertion loss, 1.7 dB typ.
- High Isolation, 26 dB typ.
- Low amplitude unbalance, 0.19 dB typ.
- 20W power handling



CASE STYLE: UU2415-5

Product Overview

Mini-Circuits' ZC8PD-18263-S+ is a wideband 8-way 0˚ splitter/combiner providing coverage from 18 to 26.5 GHz, supporting a wide range of applications including 5G, 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-18263-S+ comes housed in a case measuring 1.18 x 4.08 x 0.5" with super SMA connectors.

Key Features

Feature	Advantages
Wideband, 18 to 26.5 GHz	Extremely wide frequency range supports many broadband applications in a single model.
Low insertion loss, 1.7 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, 26 dB typ.	Minimizes interference between ports.
High power handling: • 20W as a splitter at 25°C • 5.6W as a combiner	The ZC8PD-18263-S+ is suitable for systems with a wide range of power requirements.
Low amplitude unbalance, 0.19 dB	Produces nearly equal output signals, ideal for parallel path and multichannel systems.
DC Passing, 470 mA	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.
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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

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Power Splitter/Combiner

ZC8PD-18263-S+

8 Way-0° 50Ω 18000 to 26500 MHz



Generic photo used for illustration purposes only

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Connectors	Model
SMA-Fem	ZC8PD-18263-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	5.6W max.
DC Current	470 mA

Permanent damage may occur if any of these limits are exceeded.
* Derate linearly to 11W 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

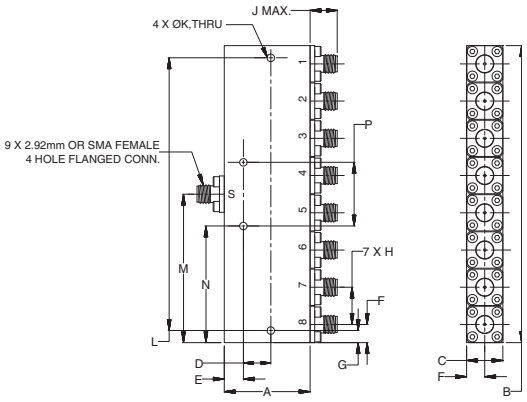
Features

- Super wideband, 18000 - 26500 MHz
- Low insertion loss, 1.7 dB typ.
- Low amplitude unbalance, 0.19 dB typ.
- Excellent VSWR, 1.29:1 typ.
- High isolation, 26 dB typ.

Applications

- Fixed satellite
- 5G
- Mobile
- Space research

Outline Drawing

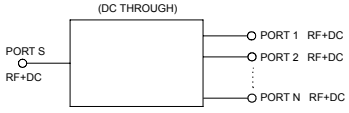


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
1.18	4.08	.50	.378	.264	.25	.166	.51
30.0	103.63	12.70	9.60	6.71	6.35	4.22	12.95

J	K	L	M	N	P	wt
.43	.102	3.750	2.04	1.604	.875	grams
10.92	2.59	95.25	51.82	40.74	22.23	150

Electrical Schematic



Electrical Specifications at 25°C

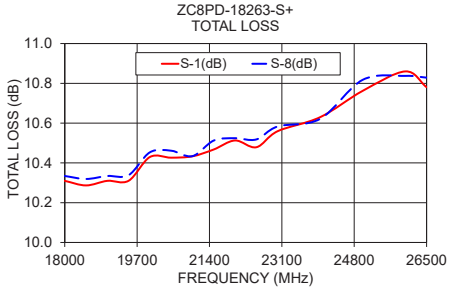
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		18000		26500	MHz
Insertion Loss Above 9.0 dB	18000-26500		1.7	2.2	dB
Isolation	18000-26500	17	26		dB
Phase Unbalance (±)[1]	18000-26500		4.2	6	Degree
Amplitude Unbalance (±)[1]	18000-26500		0.19	0.5	dB
VSWR (Port S)	18000-26500		1.29	1.6	:1
VSWR (Port 1-8)	18000-26500		1.23	1.6	:1

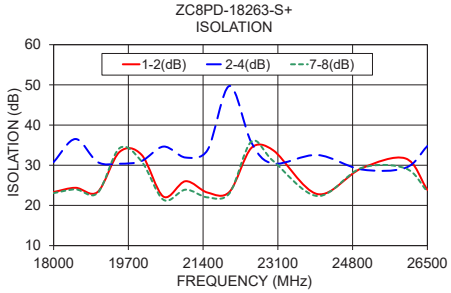
1. With reference to average.

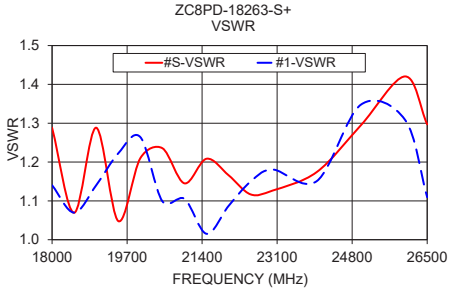
Typical Performance Data

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				
18000	10.31	10.31	10.36	10.39	10.34	10.33	0.09	23.34	30.80	32.21	23.07	1.51	1.29	1.14	1.15
18500	10.29	10.29	10.30	10.30	10.32	10.32	0.04	24.38	36.52	35.85	23.99	1.34	1.07	1.07	1.04
19000	10.31	10.31	10.36	10.39	10.34	10.33	0.09	23.34	30.80	32.21	23.07	1.51	1.29	1.14	1.15
19500	10.31	10.32	10.35	10.34	10.34	10.34	0.05	33.32	30.37	29.05	34.26	1.35	1.05	1.22	1.23
20000	10.43	10.43	10.45	10.44	10.44	10.45	0.04	32.60	31.05	33.56	30.96	1.33	1.21	1.26	1.31
20500	10.43	10.43	10.47	10.47	10.46	10.46	0.05	22.17	34.64	36.48	21.39	1.21	1.24	1.10	1.15
21000	10.43	10.44	10.48	10.47	10.45	10.43	0.09	26.03	31.92	27.90	23.92	1.37	1.15	1.11	1.09
21500	10.47	10.47	10.49	10.51	10.54	10.51	0.08	23.20	33.77	28.87	22.00	1.45	1.21	1.02	1.05
22000	10.51	10.51	10.53	10.52	10.53	10.52	0.07	23.39	49.73	36.13	23.02	1.46	1.17	1.09	1.14
22500	10.48	10.47	10.50	10.52	10.48	10.52	0.07	34.33	35.62	33.94	35.89	1.40	1.12	1.15	1.25
23000	10.56	10.55	10.57	10.56	10.55	10.58	0.07	33.67	30.41	29.18	31.00	1.90	1.13	1.18	1.23
24000	10.63	10.61	10.66	10.64	10.61	10.62	0.10	22.82	32.55	30.17	22.34	1.77	1.17	1.15	1.14
25000	10.76	10.74	10.73	10.76	10.76	10.82	0.09	29.21	28.96	28.61	29.33	1.90	1.30	1.35	1.37
26000	10.86	10.86	10.88	10.87	10.83	10.84	0.10	31.70	29.34	29.18	29.24	2.03	1.42	1.31	1.22
26500	10.78	10.78	10.82	10.83	10.79	10.83	0.05	23.90	34.77	34.35	23.48	2.20	1.30	1.11	1.03

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







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