DC Pass, High Power

Power Splitter/Combiner ZC8PD-06263-S+

8 Way-0° 50Ω 6000 to 26500 MHz

The Big Deal

- Super wideband, 6 to 26.5 GHz
- Low insertion loss, 1.2 dB typ.
- High Isolation, 28 dB typ.
- 20W power handling
- Low amplitude unbalance, 0.11 dB typ.



CASE STYLE: UU2415-4

Product Overview

Mini-Circuits' ZC8PD-06263-S+ is a super wideband 8-way 0˚ splitter/combiner providing coverage from 6 to 26.5 GHz, supporting a wide range of applications including 5G, 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-06263-S+ comes housed in a case measuring 1.93 x 4.09 x 0.5" with super SMA connectors.

Key Features

Feature	Advantages
Ultra-wideband, 6 to 26.5 GHz	Extremely wide frequency range supports many broadband applications in a single model.
Low insertion loss, 1.2 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, 28 dB typ.	Minimizes interference between ports.
High power handling: • 20W as a splitter at 25°C • 3.3W as a combiner	The ZC8PD-06263-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
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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

DC Pass, High Power

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ZC8PD-06263-S+

8 Way-0° 50Ω 6000 to 26500 MHz



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Connectors	Model
SMA-Fem	ZC8PD-06263-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	3.3W 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

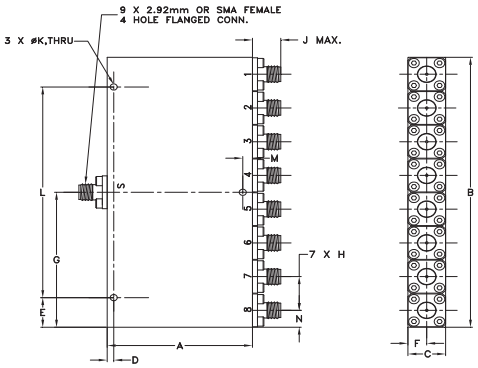
Features

- Super wideband, 6000 - 26500 MHz
- Low insertion loss, 1.2 dB typ.
- Low amplitude unbalance, 0.11 dB typ.
- Excellent VSWR, 1.16:1 typ.
- High isolation, 28 dB typ.

Applications

- Fixed satellite
- 5G
- Mobile
- Space research

Outline Drawing

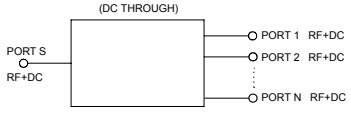


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
1.93	4.09	.50	0.087	.449	.25	2.05
49.02	103.89	12.70	2.21	11.40	6.35	52.07

H	J	K	L	M	N	wt
.51	.43	.094	3.197	.130	.26	grams
12.95	10.92	2.39	81.20	3.30	6.60	230

Electrical Schematic



Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		6000		26500	MHz
Insertion Loss Above 9.0 dB	6000 - 18000	—	1.2	2.2	dB
	18000 - 26500	—	2.1	2.9	
Isolation	6000 - 18000	16	28	—	dB
	18000 - 26500	18	28	—	
Phase Unbalance (±)[1]	6000 - 18000	—	2.6	6	Degree
	18000 - 26500	—	4.4	8	
Amplitude Unbalance (±)[1]	6000 - 18000	—	0.11	0.4	dB
	18000 - 26500	—	0.19	0.6	
VSWR (Port S)	6000 - 18000	—	1.15	1.6	:1
	18000 - 26500	—	1.16	1.6	
VSWR (Port 1-8)	6000 - 18000	—	1.17	1.6	:1
	18000 - 26500	—	1.18	1.6	

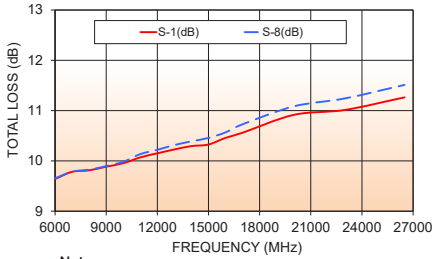
1. With reference to average

Typical Performance Data

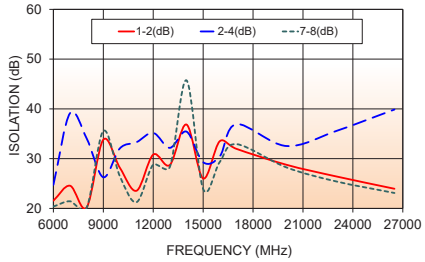
Freq. (MHz)	Total Loss[1] (dB)						Amp. Unbal. (dB)	Isolation (dB)				Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	2-4	5-7	7-8				
6000	9.64	9.64	9.64	9.69	9.67	9.65	0.07	21.56	24.74	22.92	20.38	1.73	1.04	1.07	1.10
7000	9.78	9.78	9.74	9.82	9.82	9.79	0.10	24.56	39.14	32.03	21.44	1.99	1.18	1.27	1.24
8000	9.81	9.81	9.78	9.89	9.90	9.83	0.12	20.21	34.06	38.57	20.13	2.20	1.11	1.07	1.10
9000	9.89	9.89	9.84	9.95	9.96	9.90	0.13	33.82	26.26	25.46	35.57	2.54	1.06	1.13	1.18
10000	9.95	9.96	9.91	10.04	10.03	9.98	0.12	28.14	32.08	29.72	26.42	2.58	1.09	1.13	1.18
11000	10.07	10.08	10.04	10.15	10.18	10.14	0.14	23.56	33.31	29.56	21.26	2.87	1.15	1.18	1.17
12000	10.15	10.16	10.11	10.24	10.25	10.22	0.14	30.81	35.18	34.08	28.81	3.38	1.17	1.24	1.25
13000	10.23	10.24	10.18	10.30	10.32	10.32	0.17	28.74	32.17	34.82	28.34	3.48	1.20	1.19	1.22
14000	10.29	10.31	10.27	10.39	10.40	10.39	0.14	36.85	35.43	35.76	45.73	3.82	1.21	1.21	1.24
15000	10.33	10.35	10.32	10.44	10.47	10.46	0.15	26.02	29.28	28.76	23.92	3.96	1.12	1.05	1.06
16000	10.46	10.48	10.43	10.53	10.54	10.57	0.15	33.50	30.47	28.71	29.33	4.38	1.15	1.15	1.14
17000	10.56	10.58	10.52	10.64	10.67	10.73	0.23	31.97	36.93	38.32	32.92	4.67	1.28	1.31	1.33
20000	10.92	10.94	10.92	10.99	11.01	11.08	0.21	28.77	32.54	31.26	28.25	5.43	1.26	1.42	1.42
23000	11.01	11.05	11.08	11.11	11.20	11.24	0.29	26.43	35.56	34.40	25.42	6.26	1.10	1.11	1.14
26500	11.26	11.30	11.28	11.33	11.41	11.51	0.37	23.95	39.87	37.13	23.10	6.75	1.09	1.02	1.03

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

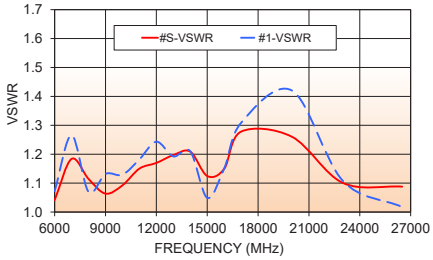
ZC8PD-06263-S+
TOTAL LOSS



ZC8PD-06263-S+
ISOLATION



ZC8PD-06263-S+
VSWR



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