

DC Pass, High Power

Power Splitter/Combiner ZC2PD-5R263-S+

2 Way-0° 50Ω 500 to 26500 MHz

The Big Deal

- Super wideband, 0.5 to 26.5 GHz
- Low insertion loss, 1.2 dB typ.
- High Isolation, 35 dB typ.
- 20W power handling
- Low amplitude unbalance, 0.05 dB typ.



CASE STYLE: UU2624-1

Product Overview

Mini-Circuits' ZC2PD-5R263-S+ is a super wideband 2-way 0° splitter/combiner providing coverage from 2 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 ZC2PD-5R263-S+ comes housed in a case measuring 5.88 x 1.04 x 0.5" with super SMA connectors.

Key Features

Feature	Advantages
Ultra-wideband, 0.5 to 26.5 GHz	Extremely wide frequency range supports many broadband applications in a single model.
Low insertion loss, 1.2 dB typ. at 13 GHz	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, 35 dB typ. at 13 GHz	Minimizes interference between ports.
High power handling: • 20W as a splitter at 25°C • 0.67W as a combiner	The ZC2PD-5R263-S+ is suitable for systems with a wide range of power requirements.
Low amplitude unbalance, 0.05 dB at 13 GHz	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



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Power Splitter/Combiner

2 Way-0° 50Ω 500 to 26500 MHz

ZC2PD-5R263-S+

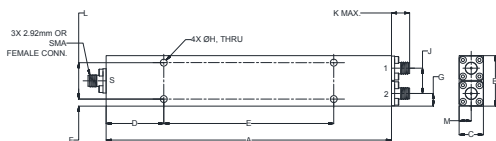
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	20W* max.
Internal Dissipation	0.67W 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	1
Port 2	2

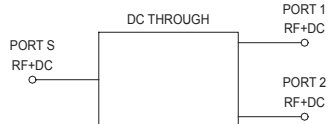
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	
5.88	1.04	.50	1.187	3.500	.145	.26	
149.35	26.42	12.70	30.15	88.90	3.68	6.60	
H	J	K	L	M			wt
.142	.52	.43	.750	.25			grams
3.61	13.21	10.92	19.05	6.35			150

Electrical Schematic



Features

- Super wideband, 500 - 26500 MHz
- Low insertion loss, 1.2 dB typ.
- Low amplitude unbalance, 0.05 dB typ.
- Excellent VSWR, 1.12:1 typ.
- High isolation, 35 dB typ.

Applications

- Fixed satellite
- Radio location
- Mobile

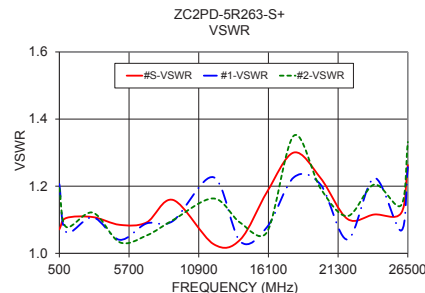
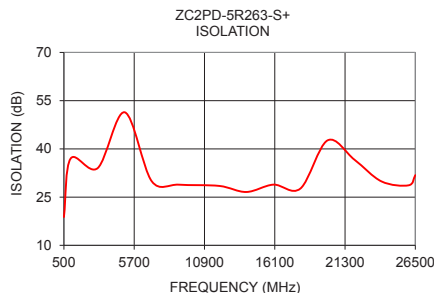
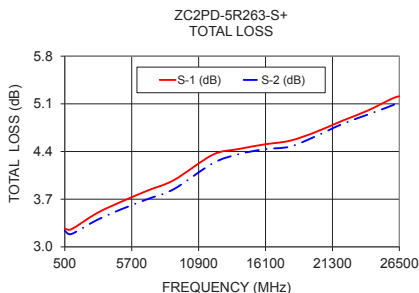
Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		500		26500	MHz
Insertion Loss Above 3.0 dB	500 - 8000	—	0.5	1.2	
	8000 - 18000	—	1.2	1.9	dB
	18000 - 26500	—	1.8	2.4	
Isolation	500 - 8000	17	34	—	
	8000 - 18000	18	35	—	dB
	18000 - 26500	18	35	—	
Phase Unbalance	500 - 8000	—	0.20	2.0	
	8000 - 18000	—	0.61	3.0	Degree
	18000 - 26500	—	1.16	4.0	
Amplitude Unbalance	500 - 8000	—	0.03	0.3	
	8000 - 18000	—	0.05	0.3	dB
	18000 - 26500	—	0.10	0.4	
VSWR (Port S)	500 - 8000	—	1.08	1.6	
	8000 - 18000	—	1.14	1.5	:1
	18000 - 26500	—	1.16	1.6	
VSWR (Port 1-2)	500 - 8000	—	1.08	1.4	
	8000 - 18000	—	1.13	1.5	:1
	18000 - 26500	—	1.19	1.6	

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
500	3.27	3.23	0.03	18.80	0.08	1.07	1.21	1.19
1000	3.26	3.19	0.07	36.99	0.17	1.11	1.06	1.08
3000	3.50	3.39	0.10	34.02	0.10	1.11	1.11	1.12
5000	3.67	3.56	0.11	51.38	0.04	1.08	1.04	1.03
7000	3.83	3.71	0.13	29.92	0.05	1.09	1.09	1.05
9000	3.98	3.85	0.13	28.87	0.19	1.16	1.10	1.10
12000	4.35	4.23	0.12	28.48	0.25	1.03	1.23	1.16
14000	4.44	4.36	0.08	26.60	0.48	1.04	1.04	1.09
16000	4.50	4.43	0.07	28.88	0.13	1.18	1.08	1.06
18000	4.56	4.47	0.09	27.68	0.23	1.30	1.23	1.35
20000	4.69	4.62	0.06	42.63	0.06	1.22	1.20	1.19
22000	4.85	4.80	0.05	36.62	0.02	1.10	1.04	1.11
24000	5.00	4.94	0.06	29.88	0.18	1.12	1.22	1.20
26000	5.18	5.08	0.10	28.67	0.04	1.12	1.07	1.14
26500	5.21	5.14	0.07	31.84	0.12	1.26	1.26	1.33

1. Total Loss = Insertion Loss + 3dB splitter theoretical loss.



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