

DC Pass, High Power

Power Splitter/Combiner ZC2PD-02263-S+

2 Way-0° 50Ω 2000 to 26500 MHz

The Big Deal

- Super wideband, 2 to 26.5 GHz
- Low insertion loss, 0.6 dB typ.
- High Isolation, 31 dB typ.
- 20W power handling
- Low amplitude unbalance, 0.04 dB typ.



CASE STYLE: UU2623

Product Overview

Mini-Circuits' ZC2PD-02263-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-02263-S+ comes housed in a case measuring 1.04 x 1.79 x 0.05" 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, 0.6 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">• 20W as a splitter at 25°C• 0.4W as a combiner | The ZC2PD-02263-S+ is suitable for systems with a wide range of power requirements. |
| Low amplitude unbalance, 0.04 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



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ZC2PD-02263-S+

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Generic photo used for illustration purposes only

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Connectors Model
SMA-Fem ZC2PD-02263-S+

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

Maximum Ratings

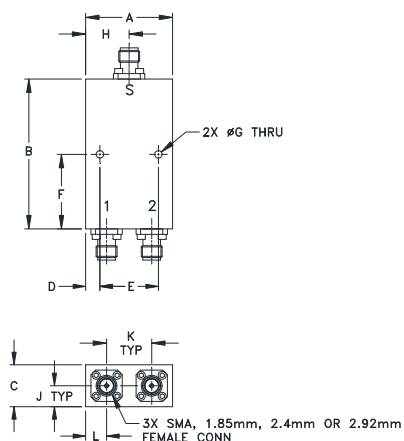
| | |
|-----------------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 20W* max. |
| Internal Dissipation | 0.4W max. |
| DC Current | 530 mA |

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 |

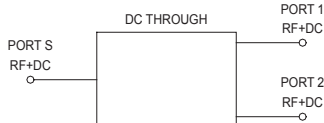
Outline Drawing



Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G |
|-------|-------|-------|------|-------|-------|------|
| 1.04 | 1.79 | .50 | .17 | .700 | .89 | .090 |
| 26.42 | 45.47 | 12.70 | 4.32 | 17.78 | 22.61 | 2.29 |
| H | J | K | L | wt | | |
| .52 | .25 | .540 | .25 | grams | | |
| 13.21 | 6.35 | 13.72 | 6.35 | 60 | | |

Electrical Schematic



Features

- Super wideband, 2000 - 26500 MHz
- Low insertion loss, 0.6 dB typ.
- Low amplitude unbalance, 0.04 dB typ.
- Excellent VSWR, 1.12:1 typ.
- High isolation, 31 dB typ.

Applications

- Fixed satellite
- 5G
- Mobile
- Space research

Electrical Specifications at 25°C

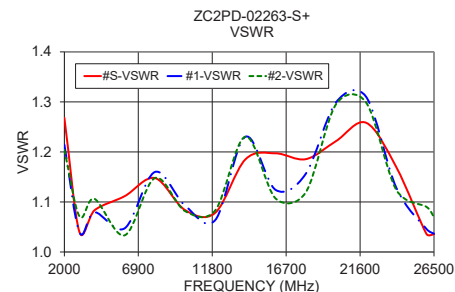
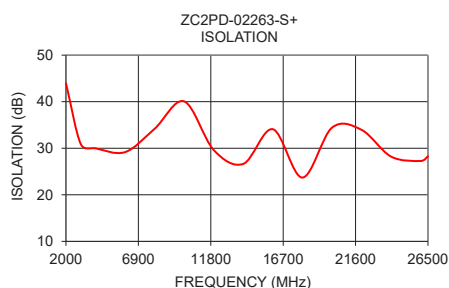
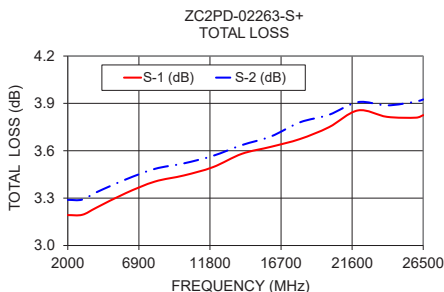
| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|------------------------------------|-----------------|------|------|-------|--------|
| Frequency Range | | 2000 | | 26500 | MHz |
| Insertion Loss Above 3.0 dB | 2000 - 8000 | -- | 0.37 | 0.6 | |
| | 8000 - 18000 | -- | 0.60 | 0.9 | dB |
| | 18000 - 26500 | -- | 0.87 | 1.2 | |
| Isolation | 2000 - 26500 | 18 | 28 | -- | dB |
| | 8000 - 18000 | 18 | 31 | -- | |
| | 18000 - 26500 | 18 | 35 | -- | |
| Phase Unbalance (±)¹ | 2000 - 26500 | | 0.30 | 2.0 | Degree |
| | 8000 - 18000 | | 0.69 | 2.0 | |
| | 18000 - 26500 | | 1.14 | 3.0 | |
| Amplitude Unbalance (±)¹ | 2000 - 8000 | | 0.03 | 0.2 | dB |
| | 8000 - 18000 | | 0.04 | 0.2 | |
| | 18000 - 26500 | | 0.05 | 0.3 | |
| VSWR (Port S) | 2000 - 26500 | | 1.11 | 1.4 | |
| | 8000 - 18000 | | 1.12 | 1.5 | :1 |
| | 18000 - 26500 | | 1.15 | 1.5 | |
| VSWR (Port 1-2) | 2000 - 26500 | | 1.12 | 1.4 | |
| | 8000 - 18000 | | 1.11 | 1.5 | :1 |
| | 18000 - 26500 | | 1.16 | 1.5 | |

1. With reference to average.

Typical Performance Data

| Frequency (MHz) | Total Loss² (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
| | S-1 | S-2 | | | | | | |
| 2000 | 3.19 | 3.29 | 0.10 | 43.94 | 0.27 | 1.27 | 1.21 | 1.20 |
| 3000 | 3.19 | 3.29 | 0.10 | 30.90 | 0.41 | 1.04 | 1.04 | 1.07 |
| 4000 | 3.24 | 3.34 | 0.10 | 29.99 | 0.48 | 1.08 | 1.08 | 1.11 |
| 6000 | 3.33 | 3.42 | 0.09 | 29.16 | 0.69 | 1.11 | 1.05 | 1.03 |
| 8000 | 3.40 | 3.49 | 0.08 | 34.19 | 1.00 | 1.15 | 1.16 | 1.15 |
| 10000 | 3.44 | 3.52 | 0.08 | 40.07 | 1.19 | 1.08 | 1.09 | 1.08 |
| 12000 | 3.50 | 3.57 | 0.07 | 29.61 | 1.38 | 1.08 | 1.06 | 1.08 |
| 14000 | 3.58 | 3.64 | 0.06 | 26.64 | 1.52 | 1.19 | 1.23 | 1.23 |
| 16000 | 3.62 | 3.69 | 0.07 | 34.09 | 1.96 | 1.20 | 1.12 | 1.11 |
| 18000 | 3.67 | 3.78 | 0.11 | 23.70 | 2.42 | 1.19 | 1.16 | 1.12 |
| 20000 | 3.75 | 3.83 | 0.08 | 34.41 | 2.46 | 1.22 | 1.30 | 1.29 |
| 22000 | 3.86 | 3.91 | 0.05 | 33.96 | 2.74 | 1.26 | 1.31 | 1.30 |
| 24000 | 3.81 | 3.89 | 0.07 | 28.21 | 3.18 | 1.17 | 1.13 | 1.12 |
| 26000 | 3.81 | 3.91 | 0.10 | 27.26 | 3.41 | 1.04 | 1.05 | 1.09 |
| 26500 | 3.83 | 3.92 | 0.10 | 28.27 | 3.42 | 1.04 | 1.04 | 1.07 |

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



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