

DC Pass, High Power

Power Splitter/Combiner ZC2PD-01263-S+

2 Way-0° 50Ω 1000 to 26500 MHz

The Big Deal

- Super wideband, 1 to 26.5 GHz
- Low insertion loss, 0.7 dB typ.
- High Isolation, 33 dB typ.
- 20W power handling
- Low amplitude unbalance, 0.04 dB typ.



CASE STYLE: UU2624-2

Product Overview

Mini-Circuits' ZC2PD-01263-S+ is a super wideband 2-way 0° splitter/combiner providing coverage from 1 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-01263-S+ comes housed in a case measuring 3.75 x 1.02 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. |
| Low insertion loss, 0.7 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, 33 dB typ. at 13 GHz | Minimizes interference between ports. |
| High power handling: <ul style="list-style-type: none">• 20W as a splitter at 25°C• 0.67W as a combiner | The ZC2PD-01263-S+ is suitable for systems with a wide range of power requirements. |
| Low amplitude unbalance, 0.04 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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ZC2PD-01263-S+

2 Way-0° 50Ω 1000 to 26500 MHz

Maximum Ratings

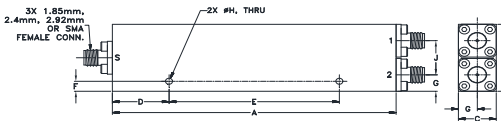
| | |
|-----------------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 20W* max. |
| Internal Dissipation | 0.67W max. |
| DC Current | 530 mA |

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

| | |
|----------|---|
| Sum Port | S |
| Port 1 | 1 |
| Port 2 | 2 |

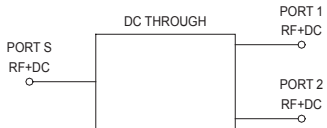
Outline Drawing



Outline Dimensions (inch/mm)

| | | | | | | | |
|-------|-------|-------|-------|-------|------|------|-------|
| A | B | C | D | E | F | G | |
| 3.75 | 1.02 | .50 | .750 | 2.250 | .151 | .25 | |
| 95.25 | 25.91 | 12.70 | 19.05 | 57.15 | 3.84 | 6.35 | |
| H | J | K | | | | | wt |
| .094 | .52 | .47 | | | | | grams |
| 2.39 | 13.21 | 12 | | | | | 105 |

Electrical Schematic



Features

- Super wideband, 1000 - 26500 MHz
- Low insertion loss, 0.7 dB typ.
- Low amplitude unbalance, 0.04 dB typ.
- Excellent VSWR, 1.12:1 typ.
- High isolation, 33 dB typ.

Applications

- Fixed satellite
- 5G
- Mobile
- Space research
- Test accessory

Electrical Specifications at 25°C

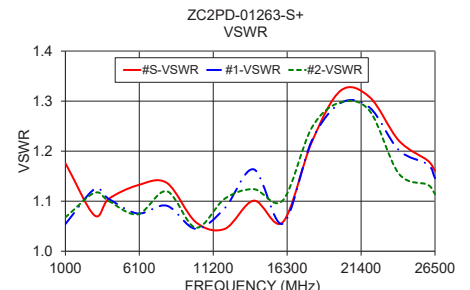
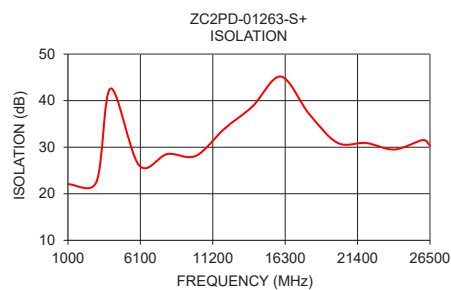
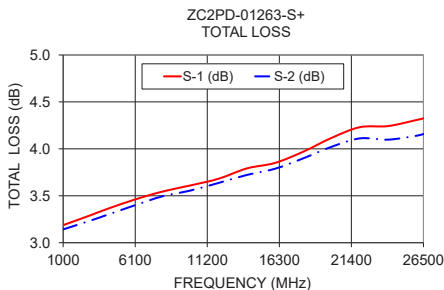
| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|------------------------------------|-----------------|------|------|-------|--------|
| Frequency Range | | 1000 | | 26500 | MHz |
| Insertion Loss Above 3.0 dB | 1000 - 8000 | — | 0.3 | 0.7 | |
| | 8000 - 18000 | — | 0.7 | 1.2 | dB |
| | 18000 - 26500 | — | 1.1 | 1.6 | |
| Isolation | 1000 - 8000 | 17 | 29 | — | |
| | 8000 - 18000 | 18 | 33 | — | dB |
| | 18000 - 26500 | 18 | 33 | — | |
| Phase Unbalance (±)¹ | 1000 - 8000 | — | 0.3 | 2.0 | |
| | 8000 - 18000 | — | 0.7 | 3.0 | Degree |
| Amplitude Unbalance (±)¹ | 1000 - 8000 | — | 0.02 | 0.2 | |
| | 8000 - 18000 | — | 0.04 | 0.2 | dB |
| | 18000 - 26500 | — | 0.06 | 0.3 | |
| VSWR (Port S) | 1000 - 8000 | — | 1.11 | 1.4 | |
| | 8000 - 18000 | — | 1.12 | 1.5 | :1 |
| | 18000 - 26500 | — | 1.22 | 1.5 | |
| VSWR (Port 1-2) | 1000 - 8000 | — | 1.11 | 1.4 | |
| | 8000 - 18000 | — | 1.11 | 1.5 | :1 |
| | 18000 - 26500 | — | 1.22 | 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 | | | | | | |
| 1000 | 3.19 | 3.14 | 0.04 | 22.04 | 0.05 | 1.18 | 1.05 | 1.07 |
| 3000 | 3.30 | 3.24 | 0.06 | 22.52 | 0.01 | 1.07 | 1.12 | 1.12 |
| 4000 | 3.35 | 3.29 | 0.06 | 42.61 | 0.11 | 1.10 | 1.10 | 1.10 |
| 6000 | 3.46 | 3.39 | 0.06 | 26.15 | 0.20 | 1.13 | 1.08 | 1.07 |
| 8000 | 3.54 | 3.49 | 0.05 | 28.54 | 0.33 | 1.14 | 1.09 | 1.12 |
| 10000 | 3.61 | 3.56 | 0.05 | 28.13 | 0.36 | 1.06 | 1.04 | 1.05 |
| 12000 | 3.68 | 3.64 | 0.04 | 33.91 | 0.32 | 1.04 | 1.09 | 1.11 |
| 14000 | 3.79 | 3.72 | 0.07 | 38.77 | 0.30 | 1.10 | 1.16 | 1.12 |
| 16000 | 3.85 | 3.79 | 0.06 | 45.18 | 0.38 | 1.06 | 1.05 | 1.10 |
| 18000 | 3.97 | 3.90 | 0.07 | 37.10 | 0.38 | 1.22 | 1.22 | 1.25 |
| 20000 | 4.12 | 4.02 | 0.09 | 30.92 | 0.49 | 1.32 | 1.30 | 1.30 |
| 22000 | 4.23 | 4.11 | 0.12 | 30.90 | 0.54 | 1.31 | 1.29 | 1.28 |
| 24000 | 4.24 | 4.10 | 0.14 | 29.51 | 0.76 | 1.22 | 1.20 | 1.16 |
| 26000 | 4.31 | 4.14 | 0.17 | 31.54 | 0.99 | 1.18 | 1.17 | 1.13 |
| 26500 | 4.32 | 4.16 | 0.17 | 30.35 | 1.02 | 1.16 | 1.15 | 1.11 |

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



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Generic photo used for illustration purposes only

CASE STYLE: UU2624-2

| Connectors | Model |
|------------|----------------|
| SMA-Fem | ZC2PD-01263-S+ |

+RoHS Compliant

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