

Coaxial

# Power Splitter/Combiner

ZAPD-900-5W+

2 Way-0° 50Ω 100 to 900 MHz

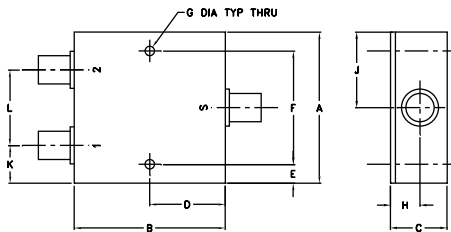
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -55°C to 100°C |
| Storage Temperature                                             | -55°C to 100°C |
| Power Input (as a splitter)                                     | 5W max.        |
| Internal Dissipation                                            | 1W max.        |
| 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     |       |
| 2.00  | 2.00  | 0.75  | 1.00  | 0.25 | 1.500 | 0.125 |       |
| 50.80 | 50.80 | 19.05 | 25.40 | 6.35 | 38.10 | 3.18  |       |
| H     | J     | K     | L     |      |       |       | wt    |
| 0.39  | 1.00  | 0.50  | 1.00  |      |       |       | grams |
| 9.91  | 25.40 | 12.70 | 25.40 |      |       |       | 170.0 |

## Features

- wideband, 100 to 900 MHz
- low insertion loss, 0.3 dB typ.
- good isolation, 26 dB typ.
- up to 5W power input as splitter
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- rugged shielded case

## Applications

- VHF/UHF
- communication systems
- instrumentation

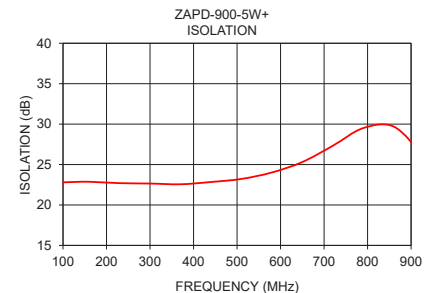
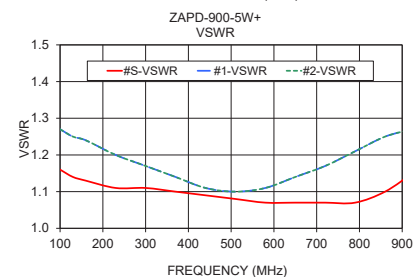
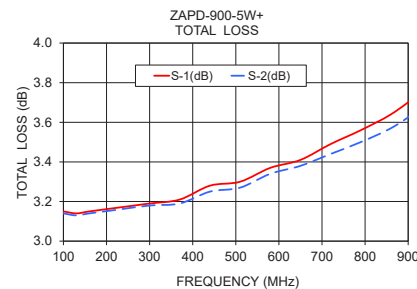
## Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 3.0 dB |      | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) | VSWR (:1) |      |      |      |
|-------------------|----------------|------|----------------------------------|------|---------------------------|--------------------------|-----------|------|------|------|
|                   | Typ.           | Min. | Typ.                             | Max. |                           |                          | Max.      | Max. | S    | OUT  |
| $f_L$ - $f_U$     |                |      |                                  |      |                           |                          | Typ.      | Max. | Typ. | Max. |
| 100-900           | 23             | 18   | 0.3                              | 1.0  | 3                         | 0.3                      | 1.15      | 1.5  | 1.22 | 1.5  |

## Typical Performance Data

| Frequency (MHz) | Total Loss <sup>1</sup> (dB) |      | Amplitude Unbalance (dB) | Isolation (dB) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|--------|--------|--------|
|                 | S-1                          | S-2  |                          |                |        |        |        |
| 100.00          | 3.15                         | 3.14 | 0.01                     | 22.80          | 1.16   | 1.27   | 1.27   |
| 130.00          | 3.14                         | 3.13 | 0.01                     | 22.85          | 1.14   | 1.25   | 1.25   |
| 160.00          | 3.15                         | 3.14 | 0.00                     | 22.87          | 1.13   | 1.24   | 1.24   |
| 230.00          | 3.17                         | 3.16 | 0.01                     | 22.70          | 1.11   | 1.20   | 1.20   |
| 300.00          | 3.19                         | 3.18 | 0.01                     | 22.65          | 1.11   | 1.17   | 1.17   |
| 370.00          | 3.21                         | 3.19 | 0.02                     | 22.56          | 1.10   | 1.14   | 1.14   |
| 440.00          | 3.28                         | 3.25 | 0.03                     | 22.84          | 1.09   | 1.11   | 1.11   |
| 510.00          | 3.30                         | 3.27 | 0.03                     | 23.22          | 1.08   | 1.10   | 1.10   |
| 580.00          | 3.37                         | 3.34 | 0.03                     | 24.02          | 1.07   | 1.11   | 1.11   |
| 650.00          | 3.41                         | 3.38 | 0.04                     | 25.31          | 1.07   | 1.14   | 1.14   |
| 720.00          | 3.49                         | 3.44 | 0.05                     | 27.32          | 1.07   | 1.17   | 1.17   |
| 790.00          | 3.56                         | 3.50 | 0.05                     | 29.51          | 1.07   | 1.21   | 1.21   |
| 860.00          | 3.64                         | 3.57 | 0.07                     | 29.70          | 1.10   | 1.25   | 1.25   |
| 924.00          | 3.74                         | 3.66 | 0.09                     | 26.35          | 1.15   | 1.27   | 1.27   |

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



## electrical schematic



## 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.  
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 REV. E  
 M151107  
 ZAPD-900-5W+  
 HY/TD/CP  
 200610

 Generic photo used for illustration purposes only  
 N-Type version shown

CASE STYLE: F14

| Connectors | Model          |
|------------|----------------|
| N-TYPE     | ZAPD-900-5W-N+ |
| SMA        | ZAPD-900-5W-S+ |

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