

# Power Splitter/Combiner

2 Way-0° 50Ω 2000 to 4200 MHz

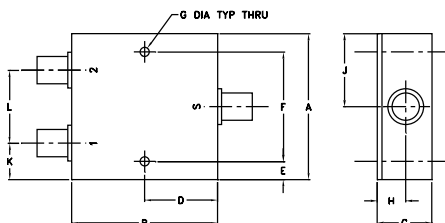
## Maximum Ratings

|                                                                 |                              |
|-----------------------------------------------------------------|------------------------------|
| Operating Temperature                                           | -55°C to 100°C               |
| Storage Temperature                                             | -55°C to 100°C               |
| Power Input (as a splitter)                                     | 10W max.                     |
| Internal Dissipation                                            | 0.125W max.                  |
| DC Current                                                      | 500 mA (250mA for each port) |
| 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, 2000 to 4200 MHz
- low insertion loss, 0.4 dB typ.
- good isolation, 25 dB typ.
- up to 10W power input as splitter
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- rugged shielded case

## Applications

- MMDS
- ISM
- wireless
- communication systems
- instrumentation

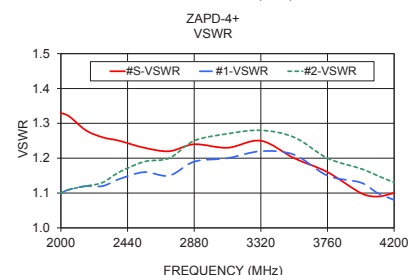
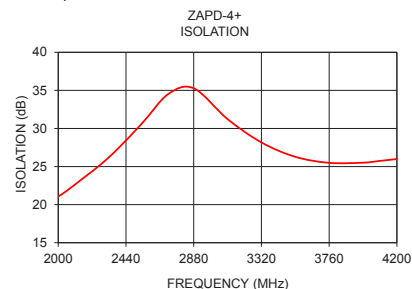
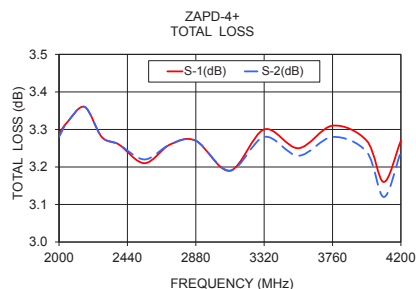
## Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) | INSERTION LOSS (dB) ABOVE 3.0 dB | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) |
|-------------------|----------------|----------------------------------|---------------------------|--------------------------|
| $f_L$ - $f_U$     | Typ. Min       | Typ. Max.                        | Max.                      | Max.                     |
| 2000-4200         | 25 19          | 0.4 0.8                          | 6                         | 0.4                      |

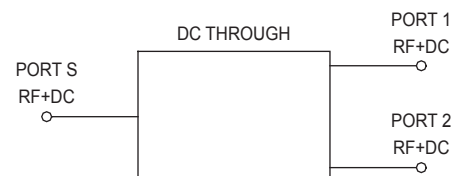
## Typical Performance Data

| Frequency (MHz) | Total Loss <sup>1</sup> (dB) | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|--------------------------|----------------|------------------------|--------|--------|--------|
|                 | S-1 S-2                      |                          |                |                        |        |        |        |
| 2000.00         | 3.29 3.28                    | 0.01                     | 21.06          | 0.12                   | 1.33   | 1.10   | 1.10   |
| 2055.00         | 3.32 3.32                    | 0.00                     | 21.81          | 0.06                   | 1.32   | 1.11   | 1.11   |
| 2165.00         | 3.36 3.36                    | 0.00                     | 23.52          | 0.02                   | 1.28   | 1.12   | 1.12   |
| 2275.00         | 3.28 3.28                    | 0.01                     | 25.26          | 0.06                   | 1.26   | 1.12   | 1.13   |
| 2385.00         | 3.26 3.26                    | 0.01                     | 27.29          | 0.06                   | 1.25   | 1.14   | 1.16   |
| 2550.00         | 3.21 3.22                    | 0.01                     | 30.80          | 0.03                   | 1.23   | 1.16   | 1.19   |
| 2715.00         | 3.26 3.26                    | 0.00                     | 34.52          | 0.07                   | 1.22   | 1.15   | 1.20   |
| 2880.00         | 3.27 3.27                    | 0.01                     | 35.28          | 0.11                   | 1.24   | 1.19   | 1.25   |
| 3100.00         | 3.19 3.19                    | 0.01                     | 31.23          | 0.05                   | 1.23   | 1.20   | 1.27   |
| 3320.00         | 3.30 3.28                    | 0.02                     | 28.17          | 0.13                   | 1.25   | 1.22   | 1.28   |
| 3540.00         | 3.25 3.23                    | 0.02                     | 26.28          | 0.06                   | 1.20   | 1.21   | 1.26   |
| 3760.00         | 3.31 3.28                    | 0.02                     | 25.49          | 0.06                   | 1.16   | 1.15   | 1.20   |
| 3980.00         | 3.27 3.24                    | 0.04                     | 25.51          | 0.02                   | 1.10   | 1.13   | 1.17   |
| 4090.00         | 3.16 3.12                    | 0.03                     | 25.74          | 0.04                   | 1.09   | 1.10   | 1.15   |
| 4200.00         | 3.27 3.24                    | 0.04                     | 25.99          | 0.02                   | 1.10   | 1.08   | 1.13   |

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.  
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# ZAPD-4+



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

CASE STYLE: F14

| Connectors | Model     |
|------------|-----------|
| N-TYPE     | ZAPD-4-N+ |
| SMA        | ZAPD-4-S+ |

**+RoHS Compliant**

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