

# Power Splitter/Combiner

2 Way-0° 50Ω 1000 to 2000 MHz

## ZAPD-2+



Generic photo used for illustration purposes only  
CASE STYLE: F14

| Connectors | Model     |
|------------|-----------|
| BNC        | ZAPD-2+   |
| SMA        | ZAPD-2-S+ |
| N-TYPE     | ZAPD-2-N+ |

**+RoHS Compliant**

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

### Maximum Ratings

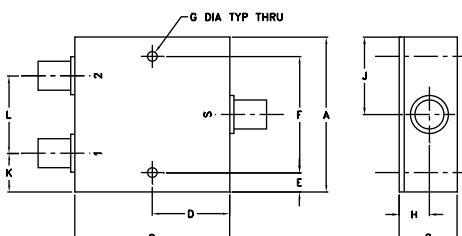
|                             |                              |
|-----------------------------|------------------------------|
| Operating Temperature       | -55°C to 100°C               |
| Storage Temperature         | -55°C to 100°C               |
| Power Input (as a splitter) | 10W max.                     |
| Internal Dissipation        | 0.125W max.                  |
| DC Current                  | 800 mA (400mA 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

- low insertion loss, 0.25 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.
- excellent VSWR, 1.1:1 typ.
- rugged shielded case

### Applications

- GPS
- satellite distribution
- PCS/DCS
- communications systems

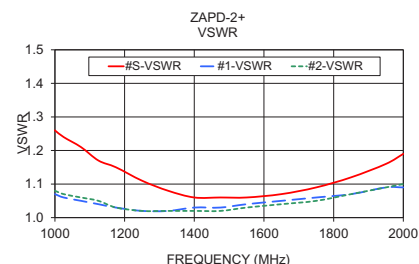
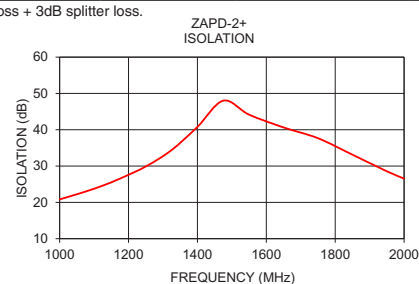
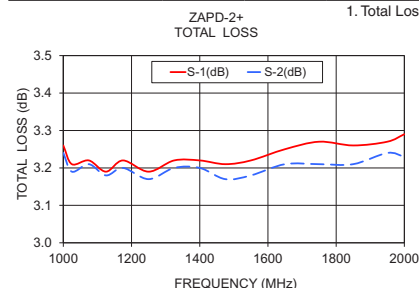
### Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) | INSERTION LOSS (dB) ABOVE 3.0 dB | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) | VSWR (:1)                 |
|-------------------|----------------|----------------------------------|---------------------------|--------------------------|---------------------------|
| $f_L - f_U$       | Typ. Min.      | Typ. Max.                        | Max.                      | Max.                     | S Typ. Max. OUT Typ. Max. |
| 1000-2000         | 25 19          | 0.25 0.6                         | 2                         | 0.2                      | — — — —                   |

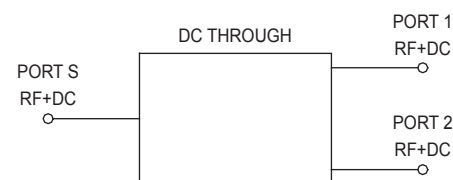
### Typical Performance Data

| 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                      |                          |                |                        |        |        |        |
| 1000.00         | 3.26 3.24                    | 0.02                     | 20.82          | 0.14                   | 1.26   | 1.07   | 1.08   |
| 1025.00         | 3.21 3.19                    | 0.01                     | 21.53          | 0.14                   | 1.24   | 1.06   | 1.07   |
| 1075.00         | 3.22 3.21                    | 0.01                     | 22.97          | 0.12                   | 1.21   | 1.05   | 1.06   |
| 1125.00         | 3.19 3.18                    | 0.01                     | 24.61          | 0.16                   | 1.17   | 1.04   | 1.05   |
| 1175.00         | 3.22 3.20                    | 0.02                     | 26.54          | 0.13                   | 1.15   | 1.03   | 1.03   |
| 1250.00         | 3.19 3.17                    | 0.02                     | 29.88          | 0.17                   | 1.11   | 1.02   | 1.02   |
| 1325.00         | 3.22 3.20                    | 0.02                     | 34.41          | 0.15                   | 1.08   | 1.02   | 1.02   |
| 1400.00         | 3.22 3.20                    | 0.02                     | 40.79          | 0.23                   | 1.06   | 1.03   | 1.02   |
| 1475.00         | 3.21 3.17                    | 0.04                     | 48.01          | 0.27                   | 1.06   | 1.03   | 1.02   |
| 1550.00         | 3.22 3.18                    | 0.04                     | 44.16          | 0.23                   | 1.06   | 1.04   | 1.03   |
| 1650.00         | 3.25 3.21                    | 0.04                     | 40.64          | 0.23                   | 1.07   | 1.05   | 1.04   |
| 1750.00         | 3.27 3.21                    | 0.05                     | 37.67          | 0.17                   | 1.09   | 1.06   | 1.05   |
| 1850.00         | 3.26 3.21                    | 0.05                     | 33.14          | 0.22                   | 1.12   | 1.07   | 1.07   |
| 1950.00         | 3.27 3.24                    | 0.03                     | 28.56          | 0.27                   | 1.16   | 1.09   | 1.09   |
| 2000.00         | 3.29 3.23                    | 0.06                     | 26.55          | 0.20                   | 1.19   | 1.09   | 1.10   |

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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