

# Power Splitter/Combiner

4 Way-0° 50Ω 850 to 930 MHz

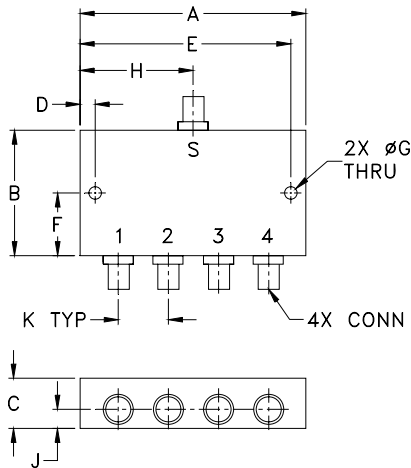
## Maximum Ratings

|                                                                 |                             |
|-----------------------------------------------------------------|-----------------------------|
| Operating Temperature                                           | -55°C to 100°C              |
| Storage Temperature                                             | -55°C to 100°C              |
| Power Input (as a splitter)                                     | 10W max.                    |
| Internal Dissipation                                            | 0.375W max.                 |
| DC Current                                                      | 2.0 A (500mA 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 |
| PORT 3   | 3 |
| PORT 4   | 4 |

## Outline Drawing



## Outline Dimensions (inch/mm)

| A     | B     | C     | D     | E     | F     |
|-------|-------|-------|-------|-------|-------|
| 3.50  | 2.13  | .88   | .150  | 3.350 | 1.06  |
| 88.90 | 54.10 | 22.35 | 3.81  | 85.09 | 26.92 |
| G     | H     | J     | K     | wt    |       |
| .125  | 1.75  | .44   | .89   | grams |       |
| 3.18  | 44.45 | 11.18 | 22.61 | 260   |       |

## Features

- high isolation, 30 dB typ.
- rugged shielded case
- very good VSWR, 1.10:1 typ.
- up to 10W power input as a splitter

## Applications

- cellular
- communication systems
- receivers/transmitters

ZB4PD1-930+



SMA version shown  
CASE STYLE: UU188  
Connectors Model  
SMA ZB4PD1-930-S+  
N-TYPE ZB4PD1-930-N+

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

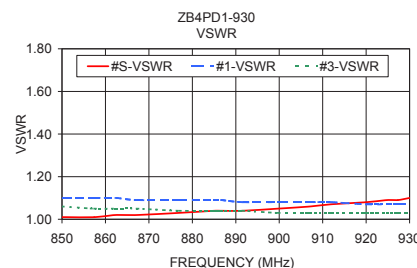
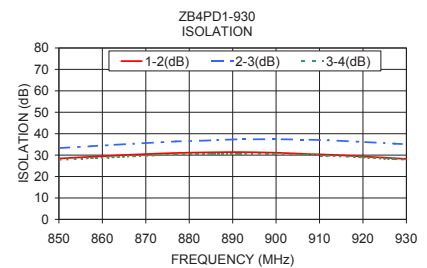
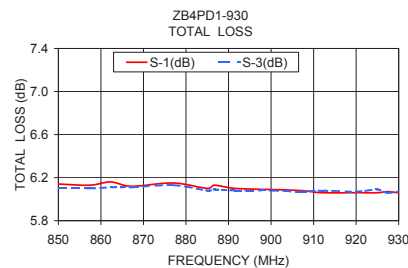
## Electrical Specifications

| FREQ.<br>RANGE<br>(MHz) | ISOLATION<br>(dB)              |             | INSERTION LOSS (dB)<br>ABOVE 6.0 dB |   | PHASE<br>UNBALANCE<br>(Degrees) | AMPLITUDE<br>UNBALANCE<br>(dB) | VSWR<br>(:1) |      |      |      |
|-------------------------|--------------------------------|-------------|-------------------------------------|---|---------------------------------|--------------------------------|--------------|------|------|------|
|                         | f <sub>L</sub> -f <sub>U</sub> | Typ.   Min. | Typ.   Max.                         |   | Max.                            | Max.                           | S            |      | OUT  |      |
|                         |                                | Typ.   Max. | Typ.   Max.                         |   |                                 |                                | Typ.         | Max. | Typ. | Max. |
| 850-930                 | 30   20                        | 0.3   0.5   |                                     | 5 | 0.25                            | 1.10   1.25   1.09   1.25      |              |      |      |      |

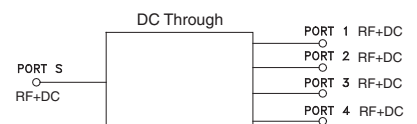
## Typical Performance Data

| Freq. (MHz) | Total Loss <sup>1</sup> (dB) |      |      |      | Amp. Unbal. (dB) | Isolation (dB) |       |       | VSWR S | VSWR 1 | VSWR 2 | VSWR 3 | VSWR 4 |
|-------------|------------------------------|------|------|------|------------------|----------------|-------|-------|--------|--------|--------|--------|--------|
|             | S-1                          | S-2  | S-3  | S-4  |                  | 1-2            | 2-3   | 3-4   |        |        |        |        |        |
| 850.00      | 6.14                         | 6.11 | 6.10 | 6.13 | 0.04             | 28.39          | 33.26 | 27.78 | 1.01   | 1.10   | 1.06   | 1.06   | 1.10   |
| 857.44      | 6.13                         | 6.09 | 6.10 | 6.09 | 0.04             | 29.23          | 34.16 | 28.57 | 1.01   | 1.10   | 1.06   | 1.05   | 1.10   |
| 862.31      | 6.16                         | 6.12 | 6.11 | 6.12 | 0.05             | 29.70          | 34.73 | 28.96 | 1.02   | 1.10   | 1.06   | 1.05   | 1.10   |
| 867.19      | 6.12                         | 6.10 | 6.11 | 6.09 | 0.04             | 30.23          | 35.31 | 29.44 | 1.02   | 1.09   | 1.06   | 1.05   | 1.09   |
| 876.94      | 6.15                         | 6.12 | 6.13 | 6.11 | 0.03             | 30.97          | 36.38 | 30.21 | 1.03   | 1.09   | 1.05   | 1.04   | 1.09   |
| 885.06      | 6.10                         | 6.09 | 6.08 | 6.08 | 0.03             | 31.29          | 36.88 | 30.57 | 1.04   | 1.09   | 1.05   | 1.04   | 1.09   |
| 886.69      | 6.13                         | 6.10 | 6.09 | 6.09 | 0.04             | 31.31          | 37.08 | 30.60 | 1.04   | 1.09   | 1.05   | 1.04   | 1.09   |
| 891.56      | 6.10                         | 6.09 | 6.08 | 6.07 | 0.03             | 31.38          | 37.36 | 30.70 | 1.04   | 1.08   | 1.04   | 1.04   | 1.08   |
| 899.69      | 6.09                         | 6.08 | 6.08 | 6.06 | 0.03             | 31.11          | 37.41 | 30.49 | 1.05   | 1.08   | 1.04   | 1.03   | 1.08   |
| 907.00      | 6.08                         | 6.08 | 6.07 | 6.05 | 0.03             | 30.52          | 37.21 | 30.42 | 1.06   | 1.08   | 1.04   | 1.03   | 1.08   |
| 911.88      | 6.06                         | 6.06 | 6.08 | 6.06 | 0.02             | 30.19          | 36.93 | 29.68 | 1.07   | 1.08   | 1.03   | 1.03   | 1.08   |
| 920.00      | 6.06                         | 6.07 | 6.07 | 6.04 | 0.03             | 29.34          | 36.13 | 28.90 | 1.08   | 1.07   | 1.03   | 1.03   | 1.07   |
| 924.88      | 6.06                         | 6.07 | 6.09 | 6.04 | 0.05             | 28.82          | 35.64 | 28.37 | 1.09   | 1.07   | 1.03   | 1.03   | 1.07   |
| 927.31      | 6.07                         | 6.05 | 6.06 | 6.03 | 0.04             | 28.52          | 35.30 | 28.12 | 1.09   | 1.07   | 1.03   | 1.03   | 1.07   |
| 930.00      | 6.06                         | 6.07 | 6.07 | 6.03 | 0.05             | 28.22          | 35.11 | 27.88 | 1.10   | 1.07   | 1.03   | 1.03   | 1.07   |

1. Total Loss = Insertion Loss + 6dB splitter loss.



## electrical schematic



## Notes

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