

# Power Splitter/Combiner

## ZN4PD-920-S+

4 Way-0° 50Ω 800 to 920 MHz

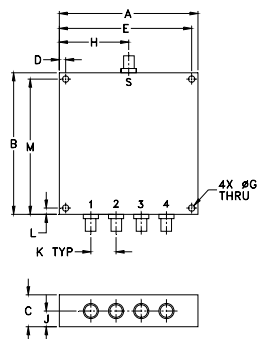
### Maximum Ratings

|                                                                 |                             |
|-----------------------------------------------------------------|-----------------------------|
| 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

|         |   |
|---------|---|
| SUMPORT | 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     | G    |
|-------|-------|-------|------|-------|-------|------|
| 2.75  | 2.80  | .63   | .125 | 2.625 | —     | .125 |
| 69.85 | 71.12 | 16.00 | 3.18 | 66.68 | —     | 3.18 |
| H     | J     | K     | L    | M     | wt    |      |
| 1.38  | .31   | .500  | .125 | 2.675 | grams |      |
| 35.05 | 7.87  | 12.70 | 3.18 | 67.95 | grams | 140  |

### Features

- high isolation, 30dB typ.
- excellent output VSWR, 1.07:1
- rugged, shielded case
- up to 10W power input as splitter

### Applications

- cellular
- GSM base station
- receivers/transmitters



CASE STYLE: UU182

| Connectors | Model        |
|------------|--------------|
| SMA        | ZN4PD-920-S+ |

+RoHS Compliant

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

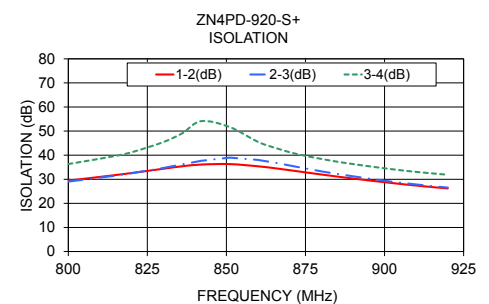
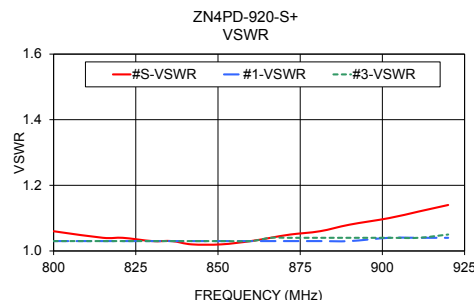
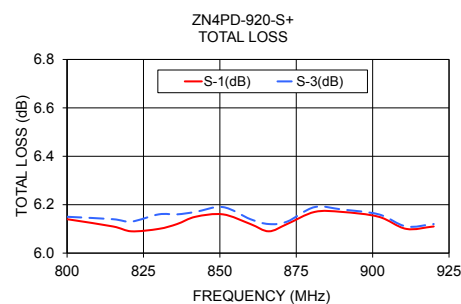
### Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 6 dB |      | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) | VSWR (:1) |      |      |      |
|-------------------|----------------|------|--------------------------------|------|---------------------------|--------------------------|-----------|------|------|------|
| $f_L - f_U$       | Typ.           | Min. | Typ.                           | Max. | Max.                      | Max.                     | S         |      | OUT  |      |
|                   | Typ.           | Max. | Typ.                           | Max. |                           |                          | Typ.      | Max. | Typ. | Max. |
| 800-920           | 30             | 20   | 0.25                           | 0.5  | 2                         | 0.2                      | 1.08      | 1.25 | 1.07 | 1.25 |

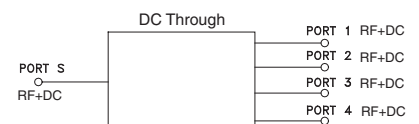
### Typical Performance Data

| Freq. (MHz) | Total Loss <sup>1</sup> (dB) |      |      |      | Amp. Unbal. (dB) | Isolation (dB) |       |       | Phase Unbal. (deg.) | VSWR S | VSWR 1 | VSWR 2 | VSWR 3 | VSWR 4 |
|-------------|------------------------------|------|------|------|------------------|----------------|-------|-------|---------------------|--------|--------|--------|--------|--------|
|             | S-1                          | S-2  | S-3  | S-4  |                  | 1-2            | 2-3   | 3-4   |                     |        |        |        |        |        |
| 800.00      | 6.14                         | 6.14 | 6.15 | 6.09 | 0.06             | 29.44          | 29.05 | 36.32 | 0.26                | 1.06   | 1.03   | 1.03   | 1.03   | 1.02   |
| 815.00      | 6.11                         | 6.11 | 6.14 | 6.06 | 0.08             | 31.76          | 31.52 | 39.70 | 0.23                | 1.04   | 1.03   | 1.03   | 1.03   | 1.02   |
| 821.00      | 6.09                         | 6.12 | 6.13 | 6.06 | 0.08             | 32.77          | 32.71 | 41.58 | 0.09                | 1.04   | 1.03   | 1.03   | 1.03   | 1.02   |
| 830.00      | 6.10                         | 6.10 | 6.16 | 6.06 | 0.10             | 34.35          | 34.65 | 45.42 | 0.17                | 1.03   | 1.03   | 1.03   | 1.03   | 1.02   |
| 836.00      | 6.12                         | 6.11 | 6.16 | 6.08 | 0.08             | 35.39          | 36.18 | 49.06 | 0.11                | 1.03   | 1.03   | 1.03   | 1.03   | 1.02   |
| 842.00      | 6.15                         | 6.15 | 6.17 | 6.10 | 0.08             | 36.11          | 37.66 | 54.12 | 0.08                | 1.02   | 1.03   | 1.03   | 1.03   | 1.02   |
| 851.00      | 6.16                         | 6.14 | 6.19 | 6.12 | 0.07             | 36.30          | 38.98 | 51.70 | 0.18                | 1.02   | 1.03   | 1.04   | 1.03   | 1.02   |
| 860.00      | 6.12                         | 6.11 | 6.14 | 6.07 | 0.06             | 35.38          | 38.04 | 45.52 | 0.32                | 1.03   | 1.03   | 1.04   | 1.03   | 1.02   |
| 866.00      | 6.09                         | 6.10 | 6.12 | 6.05 | 0.07             | 34.46          | 36.73 | 42.80 | 0.33                | 1.04   | 1.03   | 1.04   | 1.04   | 1.02   |
| 872.00      | 6.12                         | 6.11 | 6.13 | 6.07 | 0.06             | 33.40          | 35.22 | 40.57 | 0.29                | 1.05   | 1.03   | 1.04   | 1.04   | 1.03   |
| 881.00      | 6.17                         | 6.15 | 6.19 | 6.11 | 0.08             | 31.81          | 33.06 | 38.21 | 0.25                | 1.06   | 1.03   | 1.04   | 1.04   | 1.03   |
| 890.00      | 6.17                         | 6.18 | 6.18 | 6.12 | 0.06             | 30.31          | 31.25 | 36.31 | 0.26                | 1.08   | 1.03   | 1.04   | 1.04   | 1.03   |
| 902.00      | 6.15                         | 6.14 | 6.16 | 6.09 | 0.07             | 28.49          | 29.05 | 34.23 | 0.07                | 1.10   | 1.04   | 1.04   | 1.04   | 1.03   |
| 911.00      | 6.10                         | 6.10 | 6.11 | 6.06 | 0.06             | 27.26          | 27.70 | 32.93 | 0.13                | 1.12   | 1.04   | 1.05   | 1.04   | 1.03   |
| 920.00      | 6.11                         | 6.11 | 6.12 | 6.05 | 0.08             | 26.18          | 26.55 | 31.88 | 0.18                | 1.14   | 1.04   | 1.05   | 1.05   | 1.04   |

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



### electrical schematic



### Notes

- 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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