

# Power Splitter/Combiner

6 Way-0° 50Ω 1800 to 6000 MHz

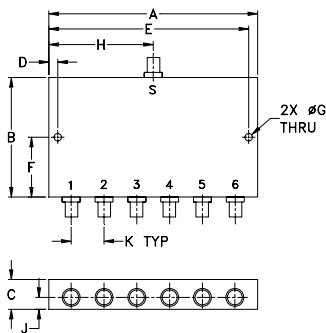
## Maximum Ratings

|                                                                 |                            |
|-----------------------------------------------------------------|----------------------------|
| Operating Temperature                                           | -55°C to 100°C             |
| Storage Temperature                                             | -55°C to 100°C             |
| Power Input (as a splitter)                                     | 10W max.                   |
| Internal Dissipation                                            | 1.5W max.                  |
| DC Current                                                      | 0.6A (100mA for each port) |
| Permanent damage may occur if any of these limits are exceeded. |                            |

## Coaxial Connections

|                  |             |
|------------------|-------------|
| SUM PORT         | S           |
| PORT 1,2,3,4,5,6 | 1,2,3,4,5,6 |

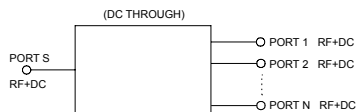
## Outline Drawing



## Outline Dimensions (inch/mm)

|       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|
| A     | B     | C     | D     | E     | F     |
| 3.50  | 3.00  | .63   | .125  | 3.375 | 1.50  |
| 88.90 | 76.20 | 16.00 | 3.18  | 85.73 | 38.10 |
| G     | H     | J     | K     | wt    |       |
| .125  | 1.75  | .32   | .500  | grams |       |
| 3.18  | 44.45 | 8.13  | 12.70 | 180   |       |

## Electrical Schematic



## Features

- wideband, 1800 to 6000 MHz
- Low insertion loss, 1.0 dB typ.
- Good isolation, 20 dB typ.
- rugged, shielded case
- up to 10W power input as splitter

## Applications

- high band PCS
- UNII
- WiMAX
- WiFi
- bluetooth

**ZN6PD-63W-S+**



CASE STYLE: UU586

Connectors Model  
SMA ZN6PD-63W-S+

**+RoHS Compliant**

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

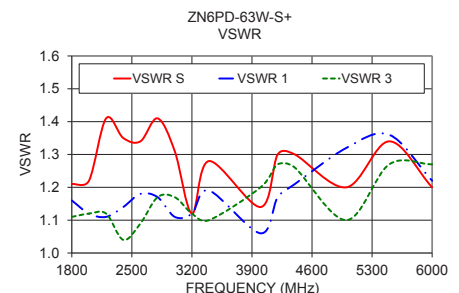
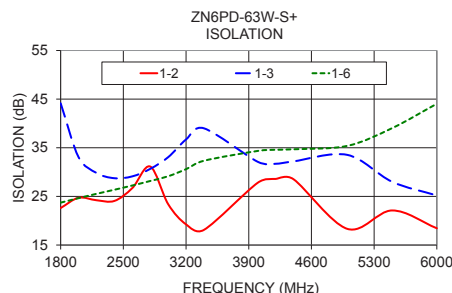
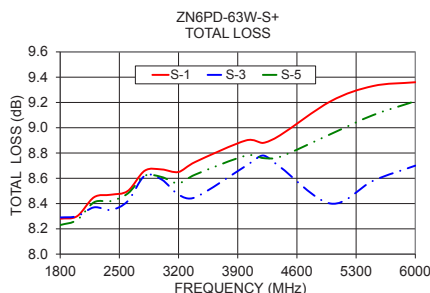
## Electrical Specifications at 25°C

| Parameter                                        | Frequency (MHz)            | Min. | Typ.        | Max.       | Unit   |
|--------------------------------------------------|----------------------------|------|-------------|------------|--------|
| <b>Frequency Range</b>                           |                            | 1800 |             | 6000       | MHz    |
| <b>Insertion Loss</b> (above theoretical 7.8 dB) | 1800 - 3000<br>3000 - 6000 | —    | 0.80<br>1.5 | 1.3<br>2.1 | dB     |
| <b>Isolation</b>                                 | 1800 - 6000                | 15   | 20          | —          | dB     |
| <b>Phase Unbalance</b>                           | 1800 - 3000<br>3000 - 6000 | —    | 5<br>9      | 9<br>15    | Degree |
| <b>Amplitude Unbalance</b>                       | 1800 - 3000<br>3000 - 6000 | —    | 0.15<br>0.8 | 0.5<br>1.5 | dB     |
| <b>VSWR (Port S)</b>                             | 1800 - 6000                | —    | 1.3         | —          | :1     |
| <b>VSWR (Port 1-6)</b>                           | 1800 - 6000                | —    | 1.3         | —          | :1     |

## Typical Performance Data

| Frequency (MHz) | Total Loss <sup>1</sup> (dB) |      |      | Amplitude Unbalance (dB) | Isolation (dB) |       |       | Phase Unbal. (deg.) | VSWR S | VSWR 1 | VSWR 3 |
|-----------------|------------------------------|------|------|--------------------------|----------------|-------|-------|---------------------|--------|--------|--------|
|                 | S-1                          | S-3  | S-5  |                          | 1-2            | 1-3   | 1-6   |                     |        |        |        |
| 1800.00         | 8.28                         | 8.29 | 8.23 | 0.09                     | 22.61          | 44.15 | 23.72 | 2.63                | 1.21   | 1.16   | 1.11   |
| 2000.00         | 8.30                         | 8.30 | 8.27 | 0.06                     | 24.72          | 33.07 | 24.64 | 3.54                | 1.22   | 1.12   | 1.12   |
| 2200.00         | 8.45                         | 8.37 | 8.41 | 0.09                     | 24.21          | 29.83 | 25.53 | 4.08                | 1.41   | 1.11   | 1.12   |
| 2400.00         | 8.47                         | 8.35 | 8.42 | 0.13                     | 24.07          | 28.74 | 26.37 | 4.12                | 1.35   | 1.14   | 1.04   |
| 2600.00         | 8.50                         | 8.42 | 8.48 | 0.11                     | 26.71          | 29.12 | 27.24 | 4.26                | 1.34   | 1.18   | 1.09   |
| 2800.00         | 8.66                         | 8.62 | 8.62 | 0.14                     | 31.14          | 30.66 | 28.17 | 4.71                | 1.41   | 1.17   | 1.17   |
| 3000.00         | 8.67                         | 8.59 | 8.61 | 0.14                     | 23.42          | 33.06 | 29.14 | 5.27                | 1.31   | 1.11   | 1.17   |
| 3200.00         | 8.65                         | 8.47 | 8.56 | 0.20                     | 19.25          | 36.71 | 30.60 | 5.57                | 1.12   | 1.12   | 1.12   |
| 3400.00         | 8.73                         | 8.45 | 8.63 | 0.31                     | 18.12          | 39.00 | 32.33 | 5.40                | 1.28   | 1.19   | 1.10   |
| 4000.00         | 8.90                         | 8.70 | 8.78 | 0.24                     | 27.80          | 32.12 | 34.35 | 4.26                | 1.14   | 1.06   | 1.20   |
| 4200.00         | 8.88                         | 8.78 | 8.76 | 0.17                     | 28.59          | 31.71 | 34.59 | 5.46                | 1.30   | 1.17   | 1.27   |
| 4400.00         | 8.94                         | 8.69 | 8.77 | 0.28                     | 28.53          | 32.20 | 34.69 | 6.92                | 1.30   | 1.21   | 1.26   |
| 5000.00         | 9.21                         | 8.40 | 8.95 | 0.84                     | 18.33          | 33.54 | 35.39 | 6.74                | 1.20   | 1.32   | 1.10   |
| 5500.00         | 9.33                         | 8.58 | 9.10 | 0.79                     | 22.11          | 28.02 | 39.03 | 5.81                | 1.34   | 1.36   | 1.27   |
| 6000.00         | 9.36                         | 8.70 | 9.21 | 0.73                     | 18.45          | 25.19 | 44.05 | 7.06                | 1.20   | 1.22   | 1.27   |

1. Total Loss = Insertion Loss + 7.8dB theoretical splitter loss.



### 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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