

Coaxial

# Power Splitter/Combiner

## ZN2PD2-50+

2 Way-0° 50Ω 500 to 5000 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        | 0.25W max.     |

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

|         |   |
|---------|---|
| SUPPORT | S |
| PORT 1  | 1 |
| PORT 2  | 2 |

### Features

- wideband, 500 to 5000 MHz
- excellent amplitude unbalance, 0.05 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- up to 10W power input as splitter

### Applications

- UHF TV
- cellular/ISM/SMG/GSM
- satellite distribution
- GPS/L BAND (MARSAT)
- PCS/DCS/UMTS
- MMDS
- SATCOM

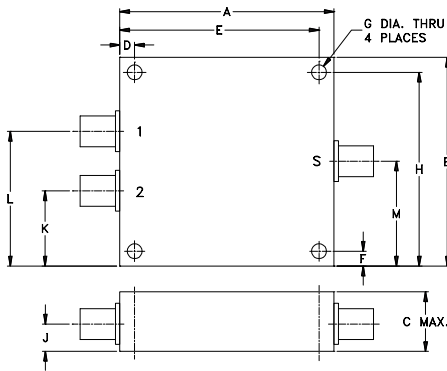
### Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 3.0 dB |      | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) | VSWR (:1) |      |      |      |
|-------------------|----------------|------|----------------------------------|------|---------------------------|--------------------------|-----------|------|------|------|
|                   | Typ.           | Min. | Typ.                             | Max. |                           |                          | S         |      | OUT  |      |
| $f_L$ - $f_U$     |                |      |                                  |      | Max.                      | Max.                     | Typ.      | Max. | Typ. | Max. |
| 500-5000          | 25             | 15   | 0.8                              | 1.4  | 4                         | 0.5                      | 1.2       | —    | 1.1  | —    |
| 600-1600          | 24             | 17   | 0.7                              | 1.1  | 2                         | 0.3                      | 1.2       | —    | 1.1  | —    |
| 1600-2700         | 26             | 18   | 0.8                              | 1.2  | 3                         | 0.3                      | 1.2       | —    | 1.1  | —    |
| 2700-3600         | 28             | 19   | 0.9                              | 1.3  | 3                         | 0.4                      | 1.2       | —    | 1.1  | —    |
| 3600-4800         | 22             | 18   | 0.9                              | 1.4  | 4                         | 0.5                      | 1.2       | —    | 1.1  | —    |

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

|                    |              |         |       |
|--------------------|--------------|---------|-------|
| CASE STYLE: VVV845 |              |         |       |
| Connectors         | Model        | Price   | Qty.  |
| SMA                | ZN2PD2-50-S+ | \$74.95 | (1-9) |

### Outline Drawing



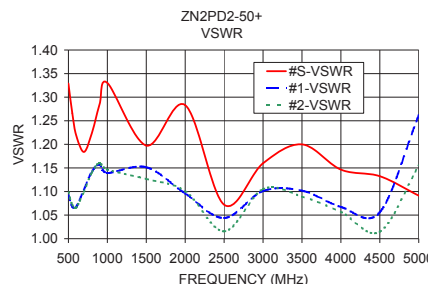
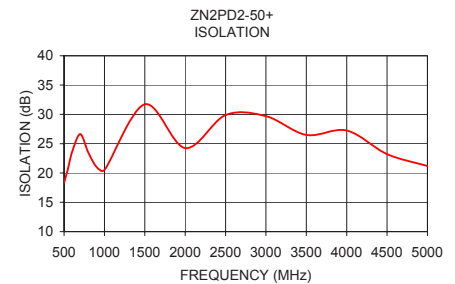
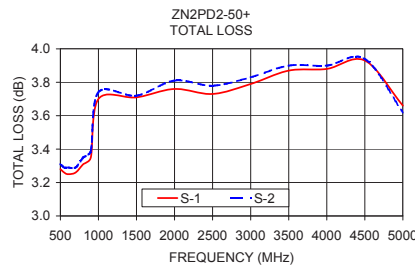
### Outline Dimensions (inch mm)

|        |       |       |       |        |      |      |       |  |
|--------|-------|-------|-------|--------|------|------|-------|--|
| A      | B     | C     | D     | E      | F    | G    |       |  |
| 4.50   | 2.50  | .67   | .400  | 4.100  | .125 | .125 |       |  |
| 114.30 | 63.50 | 17.02 | 10.16 | 104.14 | 3.18 | 3.18 |       |  |
| H      | J     | K     | L     | M      |      |      | wt    |  |
| 2.375  | .33   | .75   | 1.75  | 1.25   |      |      | grams |  |
| 60.33  | 8.38  | 19.05 | 44.45 | 31.75  |      |      | 247   |  |

### 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  |                          |                |                        |        |        |        |
| 500.00          | 3.28                         | 3.31 | 0.04                     | 18.32          | 0.02                   | 1.33   | 1.09   | 1.10   |
| 550.00          | 3.26                         | 3.29 | 0.03                     | 20.81          | 0.02                   | 1.27   | 1.07   | 1.07   |
| 600.00          | 3.25                         | 3.29 | 0.04                     | 23.61          | 0.09                   | 1.22   | 1.07   | 1.07   |
| 700.00          | 3.26                         | 3.29 | 0.03                     | 26.64          | 0.12                   | 1.18   | 1.10   | 1.10   |
| 800.00          | 3.31                         | 3.35 | 0.04                     | 23.51          | 0.07                   | 1.22   | 1.14   | 1.14   |
| 900.00          | 3.35                         | 3.39 | 0.04                     | 21.06          | 0.04                   | 1.29   | 1.16   | 1.16   |
| 1000.00         | 3.70                         | 3.74 | 0.03                     | 20.52          | 0.12                   | 1.33   | 1.14   | 1.15   |
| 1500.00         | 3.71                         | 3.72 | 0.01                     | 31.72          | 0.23                   | 1.20   | 1.15   | 1.13   |
| 2000.00         | 3.76                         | 3.81 | 0.05                     | 24.24          | 0.19                   | 1.28   | 1.10   | 1.10   |
| 2500.00         | 3.73                         | 3.78 | 0.06                     | 29.88          | 0.36                   | 1.07   | 1.04   | 1.02   |
| 3000.00         | 3.79                         | 3.83 | 0.04                     | 29.70          | 0.48                   | 1.16   | 1.10   | 1.11   |
| 3500.00         | 3.87                         | 3.90 | 0.02                     | 26.49          | 0.58                   | 1.20   | 1.10   | 1.09   |
| 4000.00         | 3.88                         | 3.90 | 0.03                     | 27.25          | 0.54                   | 1.15   | 1.07   | 1.06   |
| 4500.00         | 3.93                         | 3.94 | 0.01                     | 23.23          | 0.81                   | 1.13   | 1.06   | 1.01   |
| 5000.00         | 3.66                         | 3.62 | 0.04                     | 21.19          | 1.03                   | 1.09   | 1.26   | 1.15   |

1. Total Loss = Insertion Loss + 3dB splitter loss.



### electrical schematic



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

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