

# Power Splitter/Combiner

## ZA4PD-4+

4 Way-0° 50Ω 2000 to 4200 MHz

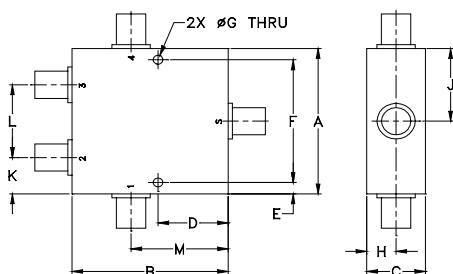
### Maximum Ratings

|                                                                 |                             |
|-----------------------------------------------------------------|-----------------------------|
| 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                                                      | 1.6 A (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 |
| PORT 3   | 3 |
| PORT 4   | 4 |

### Outline Drawing



### Outline Dimensions (inch mm)

|       |       |       |       |       |        |      |
|-------|-------|-------|-------|-------|--------|------|
| A     | B     | C     | D     | E     | F      | G    |
| 2.00  | 2.00  | .75   | .90   | .156  | 1.688  | .125 |
| 50.80 | 50.80 | 19.05 | 22.86 | 3.96  | 42.88  | 3.18 |
| H     | J     | K     | L     | M     | wt     |      |
| .38   | 1.00  | .50   | 1.00  | 1.25  | grams  |      |
| 9.65  | 25.40 | 12.70 | 25.40 | 31.75 | 150.00 |      |

### Features

- wideband, 2000 to 4200 MHz
- good isolation, 25 dB typ.
- up to 10W power input as splitter

### Applications

- MMDS
- wireless communication



N-Type version shown  
CASE STYLE: DD52

| Connectors | Model      |
|------------|------------|
| SMA        | ZA4PD-4-S+ |
| N-TYPE     | ZA4PD-4-N+ |

**+RoHS Compliant**

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

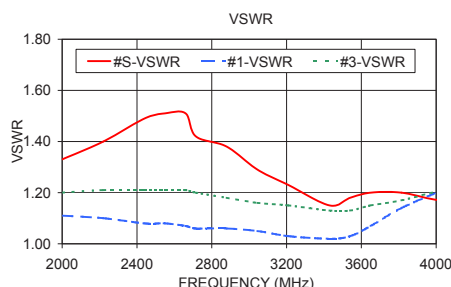
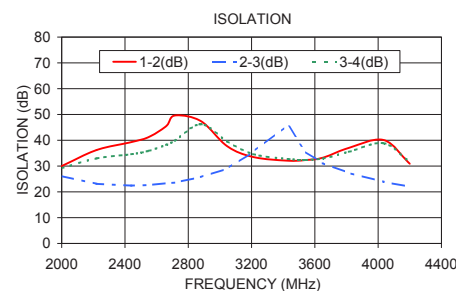
### Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 6.0 dB |      | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) |
|-------------------|----------------|------|----------------------------------|------|---------------------------|--------------------------|
| $f_L - f_U$       | Typ.           | Min. | Typ.                             | Max. | Max.                      | Max.                     |
| 2000-4200         | 25             | 16   | 0.5                              | 1.0  | 16                        | 0.8                      |

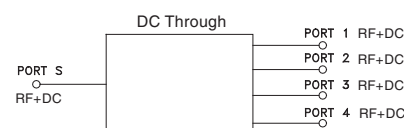
### Typical Performance Data

| 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   |                     |        |        |        |        |        |
| 2000.00     | 6.44                         | 6.28 | 6.30 | 6.44 | 0.16             | 29.99          | 26.13 | 29.17 | 1.49                | 1.33   | 1.11   | 1.20   | 1.20   | 1.10   |
| 2220.00     | 6.47                         | 6.24 | 6.28 | 6.48 | 0.24             | 36.22          | 23.10 | 32.98 | 1.58                | 1.40   | 1.10   | 1.21   | 1.21   | 1.10   |
| 2440.00     | 6.58                         | 6.37 | 6.41 | 6.59 | 0.22             | 39.29          | 22.41 | 34.60 | 1.59                | 1.49   | 1.08   | 1.23   | 1.21   | 1.10   |
| 2550.00     | 6.62                         | 6.40 | 6.43 | 6.63 | 0.23             | 41.23          | 22.65 | 35.90 | 2.05                | 1.51   | 1.08   | 1.24   | 1.21   | 1.09   |
| 2660.00     | 6.60                         | 6.44 | 6.46 | 6.61 | 0.17             | 45.46          | 23.35 | 38.23 | 1.96                | 1.51   | 1.07   | 1.23   | 1.21   | 1.09   |
| 2715.00     | 6.52                         | 6.21 | 6.25 | 6.53 | 0.32             | 49.59          | 23.57 | 39.84 | 1.65                | 1.42   | 1.06   | 1.23   | 1.20   | 1.09   |
| 2880.00     | 6.54                         | 6.26 | 6.30 | 6.55 | 0.29             | 47.42          | 25.73 | 46.22 | 1.96                | 1.38   | 1.06   | 1.21   | 1.18   | 1.08   |
| 3045.00     | 6.49                         | 6.16 | 6.20 | 6.50 | 0.34             | 37.74          | 28.98 | 39.58 | 2.02                | 1.29   | 1.05   | 1.19   | 1.16   | 1.08   |
| 3210.00     | 6.53                         | 6.19 | 6.24 | 6.54 | 0.35             | 33.51          | 35.51 | 34.63 | 2.21                | 1.23   | 1.03   | 1.18   | 1.15   | 1.06   |
| 3430.00     | 6.58                         | 6.21 | 6.22 | 6.55 | 0.38             | 32.07          | 45.95 | 32.73 | 2.11                | 1.15   | 1.02   | 1.17   | 1.13   | 1.03   |
| 3540.00     | 6.55                         | 6.14 | 6.18 | 6.55 | 0.42             | 32.32          | 35.52 | 32.51 | 2.49                | 1.18   | 1.03   | 1.17   | 1.13   | 1.00   |
| 3650.00     | 6.53                         | 6.12 | 6.17 | 6.54 | 0.42             | 33.22          | 31.12 | 32.91 | 2.64                | 1.20   | 1.07   | 1.18   | 1.15   | 1.04   |
| 3815.00     | 6.69                         | 6.22 | 6.26 | 6.67 | 0.47             | 37.05          | 27.33 | 35.53 | 2.77                | 1.20   | 1.14   | 1.20   | 1.17   | 1.10   |
| 4035.00     | 6.64                         | 6.12 | 6.15 | 6.65 | 0.53             | 40.08          | 23.88 | 38.84 | 3.02                | 1.17   | 1.21   | 1.23   | 1.21   | 1.17   |
| 4200.00     | 6.67                         | 6.10 | 6.15 | 6.68 | 0.58             | 30.89          | 21.99 | 31.59 | 3.20                | 1.20   | 1.26   | 1.24   | 1.23   | 1.24   |

1. Total Loss = Insertion Loss + 6dB 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.  
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.  
 C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

