

# Power Splitter/Combiner

2 Way-0° 50Ω 7000 to 8600 MHz

## Maximum Ratings

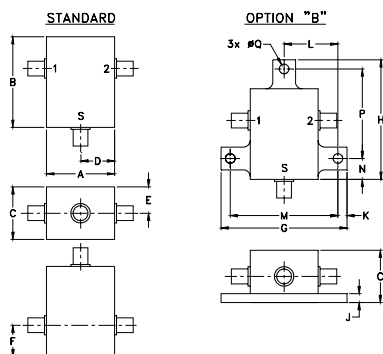
|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -55°C to 100°C |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 1W max.        |
| Internal Dissipation        | 0.125W max.    |

DC Current 1.0 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 |

## Outline Drawing



## Outline Dimensions (inch/mm)

| A     | B    | C      | D     | E    | F     | G     | H     |      |
|-------|------|--------|-------|------|-------|-------|-------|------|
| 0.75  | 1.00 | 0.58   | 0.38  | 0.29 | 0.35  | 1.39  | 1.32  |      |
| 19.05 | 25.4 | 14.732 | 9.65  | 7.37 | 8.89  | 35.31 | 33.53 |      |
| J     | K    | L      | M     | N    | P     | Q     |       | wt   |
| 0.10  | 0.10 | 0.595  | 1.19  | 0.23 | 0.995 | 0.106 | grams |      |
| 2.54  | 2.54 | 15.11  | 30.23 | 5.84 | 25.27 | 2.69  |       | 22.0 |

## Features

- low insertion loss, 0.1 dB typ.
- high isolation, 30 dB typ.
- excellent input & output VSWR, 1.1:1 typ.
- excellent amplitude unbalance, 0.1 dB typ.
- rugged shielded case

## Applications

- SHF
- defense communications
- instrumentation



CASE STYLE: JJJ245

Connectors Model  
SMA IZY2PD-86(+)  
BRACKET (OPTION "B")

## +RoHS Compliant

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

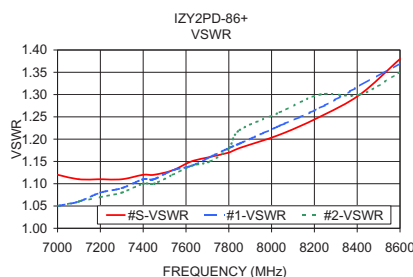
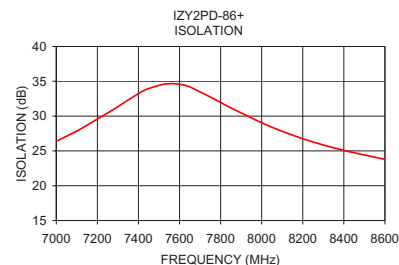
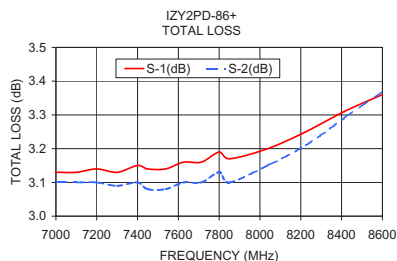
## Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 3.0 dB |      | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) | VSWR (:1) |      |      |      |
|-------------------|----------------|------|----------------------------------|------|---------------------------|--------------------------|-----------|------|------|------|
|                   | Typ.           | Min. | Typ.                             | Max. |                           |                          | Max.      | Max. | S    | OUT  |
| $f_L$ - $f_U$     |                |      |                                  |      |                           |                          | Typ.      | Max. | Typ. | Max. |
| 7000-8600         | 30             | 18   | 0.1                              | 0.5  | 6                         | 0.25                     | 1.1       | 1.45 | 1.1  | 1.4  |

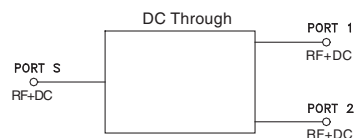
## Typical Performance Data

| Frequency (MHz) | Total Loss <sup>1</sup> (dB) |      | Amplitude Unbalance (dB) | Isolation (dB) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|--------|--------|--------|
|                 | S-1                          | S-2  |                          |                |        |        |        |
| 7000.00         | 3.13                         | 3.10 | 0.03                     | 26.38          | 1.12   | 1.05   | 1.05   |
| 7099.90         | 3.13                         | 3.10 | 0.03                     | 27.86          | 1.11   | 1.06   | 1.06   |
| 7199.80         | 3.14                         | 3.10 | 0.04                     | 29.56          | 1.11   | 1.08   | 1.07   |
| 7299.70         | 3.13                         | 3.09 | 0.04                     | 31.35          | 1.11   | 1.09   | 1.08   |
| 7399.60         | 3.15                         | 3.10 | 0.05                     | 33.23          | 1.12   | 1.11   | 1.10   |
| 7450.00         | 3.14                         | 3.08 | 0.06                     | 33.95          | 1.12   | 1.11   | 1.10   |
| 7537.60         | 3.14                         | 3.08 | 0.06                     | 34.63          | 1.13   | 1.13   | 1.12   |
| 7625.20         | 3.16                         | 3.10 | 0.06                     | 34.44          | 1.15   | 1.14   | 1.14   |
| 7712.80         | 3.16                         | 3.10 | 0.06                     | 33.29          | 1.16   | 1.16   | 1.15   |
| 7800.40         | 3.19                         | 3.13 | 0.06                     | 31.96          | 1.17   | 1.18   | 1.18   |
| 7850.00         | 3.17                         | 3.10 | 0.06                     | 31.18          | 1.18   | 1.19   | 1.22   |
| 8037.50         | 3.20                         | 3.15 | 0.05                     | 28.55          | 1.21   | 1.23   | 1.26   |
| 8225.00         | 3.25                         | 3.21 | 0.04                     | 26.52          | 1.25   | 1.27   | 1.30   |
| 8412.50         | 3.31                         | 3.29 | 0.02                     | 24.99          | 1.30   | 1.32   | 1.30   |
| 8600.00         | 3.36                         | 3.37 | 0.01                     | 23.79          | 1.38   | 1.37   | 1.35   |

1. Total Loss = Insertion Loss + 3dB 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.  
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