

Coaxial

# Power Splitter/Combiner

ZB6PD1-960

6 Way-0° 50Ω 890 to 960 MHz

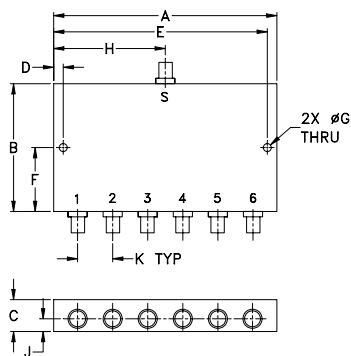
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -55°C to 100°C |
| Storage Temperature                                             | -55°C to 100°C |
| Power Input (as a splitter)                                     | 10W max.       |
| Internal Dissipation                                            | 0.5W max.      |
| 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     |
|--------|-------|-------|-------|--------|-------|
| 6.00   | 1.62  | .88   | .250  | 5.750  | .810  |
| 152.40 | 41.15 | 22.35 | 6.35  | 146.05 | 20.57 |
| G      | H     | J     | K     | wt     |       |
| .144   | 3.00  | .44   | 1.00  | grams  |       |
| 3.66   | 76.20 | 11.18 | 25.40 | 340    |       |

## Features

- low insertion loss, 0.3 dB typ.
- high isolation, 35 dB typ.
- excellent VSWR, output, 1.1:1 typ.
- rugged shielded case

## Applications

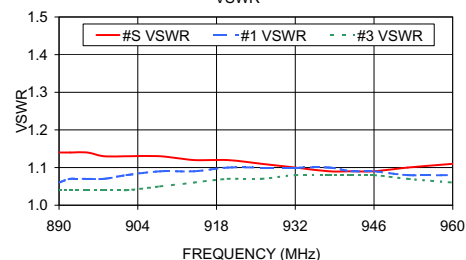
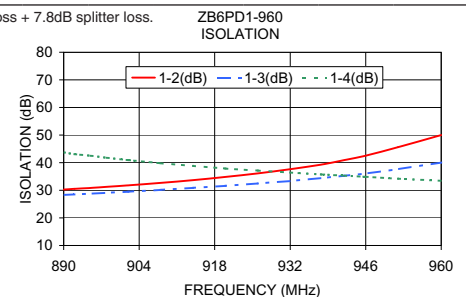
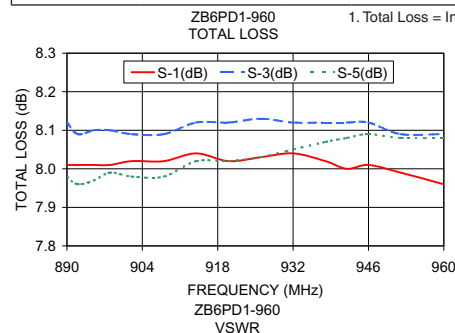
- cellular
- signal processing
- instrumentation

## Electrical Specifications

| FREQ.<br>RANGE<br>(MHz) | ISOLATION<br>(dB)              |             | INSERTION LOSS (dB)<br>ABOVE 7.8 dB |  | PHASE<br>UNBALANCE<br>(Degrees) | AMPLITUDE<br>UNBALANCE<br>(dB) | VSWR<br>(:1) |      |      |      |
|-------------------------|--------------------------------|-------------|-------------------------------------|--|---------------------------------|--------------------------------|--------------|------|------|------|
|                         | f <sub>L</sub> -f <sub>U</sub> | Typ.   Min. | Typ.   Max.                         |  | Max.                            | Max.                           | S            |      | OUT  |      |
|                         |                                |             |                                     |  |                                 |                                | Typ.         | Max. | Typ. | Max. |
| 890-960                 | 35   20                        |             | 0.3   0.8                           |  | —                               | 0.6                            | 1.1          | 1.3  | 1.1  | 1.3  |

## 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-2  | S-3  |                          | 1-2            | 1-3   | 1-4   |                     |        |        |        |
| 890.00          | 8.01                         | 8.12 | 7.98 | 0.14                     | 30.27          | 28.32 | 43.72 | 8.08                | 1.14   | 1.06   | 1.04   |
| 892.00          | 8.01                         | 8.09 | 7.96 | 0.15                     | 30.53          | 28.50 | 43.10 | 8.10                | 1.14   | 1.07   | 1.04   |
| 895.00          | 8.01                         | 8.10 | 7.97 | 0.13                     | 30.85          | 28.77 | 42.52 | 8.18                | 1.14   | 1.07   | 1.04   |
| 898.00          | 8.01                         | 8.10 | 7.99 | 0.14                     | 31.24          | 29.09 | 41.78 | 8.18                | 1.13   | 1.07   | 1.04   |
| 902.00          | 8.02                         | 8.09 | 7.98 | 0.14                     | 31.77          | 29.47 | 40.94 | 8.27                | 1.13   | 1.08   | 1.04   |
| 908.00          | 8.02                         | 8.09 | 7.98 | 0.15                     | 32.69          | 30.15 | 39.79 | 8.32                | 1.13   | 1.09   | 1.05   |
| 914.00          | 8.04                         | 8.12 | 8.02 | 0.15                     | 33.68          | 30.88 | 38.83 | 8.30                | 1.12   | 1.09   | 1.06   |
| 920.00          | 8.02                         | 8.12 | 8.02 | 0.12                     | 34.85          | 31.60 | 37.87 | 8.41                | 1.12   | 1.10   | 1.07   |
| 926.00          | 8.03                         | 8.13 | 8.03 | 0.12                     | 36.13          | 32.48 | 37.15 | 8.33                | 1.11   | 1.10   | 1.07   |
| 932.00          | 8.04                         | 8.12 | 8.05 | 0.11                     | 37.64          | 33.36 | 36.41 | 8.29                | 1.10   | 1.10   | 1.08   |
| 938.00          | 8.02                         | 8.12 | 8.07 | 0.14                     | 39.39          | 34.45 | 35.71 | 8.44                | 1.09   | 1.10   | 1.08   |
| 942.00          | 8.00                         | 8.12 | 8.08 | 0.14                     | 40.94          | 35.25 | 35.30 | 8.38                | 1.09   | 1.09   | 1.08   |
| 946.00          | 8.01                         | 8.12 | 8.09 | 0.14                     | 42.54          | 36.05 | 34.87 | 8.34                | 1.09   | 1.09   | 1.08   |
| 952.00          | 7.99                         | 8.09 | 8.08 | 0.14                     | 45.64          | 37.64 | 34.21 | 8.40                | 1.10   | 1.08   | 1.07   |
| 960.00          | 7.96                         | 8.09 | 8.08 | 0.15                     | 49.99          | 40.07 | 33.44 | 8.50                | 1.11   | 1.08   | 1.06   |



## electrical schematic



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