

Coaxial

# Power Splitter/Combiner

4 Way-0° 50Ω

800 to 1125 MHz

ZX10-4A-11+

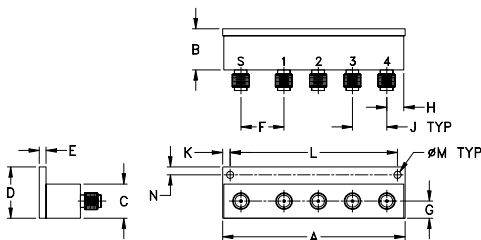
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -40°C to 85°C  |
| Storage Temperature                                             | -55°C to 100°C |
| Power Input (as a splitter)                                     | 2.5W max.      |
| Internal Dissipation                                            | 0.125W max.    |
| 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    | H    |
|-------|-------|-------|-------|------|-------|------|------|
| 2.67  | .60   | .50   | .75   | .10  | .63   | .25  | .25  |
| 67.82 | 15.24 | 12.70 | 19.05 | 2.54 | 16.00 | 6.35 | 6.35 |
| J     | K     | L     | M     | N    |       |      |      |
| .50   | .11   | 2.445 | .106  | .12  |       |      |      |
| 12.70 | 2.79  | 62.10 | 2.69  | 3.05 |       |      |      |
|       |       |       |       |      | wt.   |      |      |
|       |       |       |       |      | grams |      |      |
|       |       |       |       |      | 65.0  |      |      |

## Features

- low insertion loss, 0.6 dB typ.
- high isolation, 20 dB typ.
- rigid unibody construction
- convenient for panel mount applications
- low cost
- very small size
- protected by US patent 6,790,049

## Applications

- antenna arrays
- signal distribution
- test bench

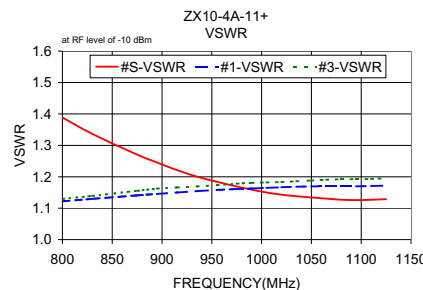
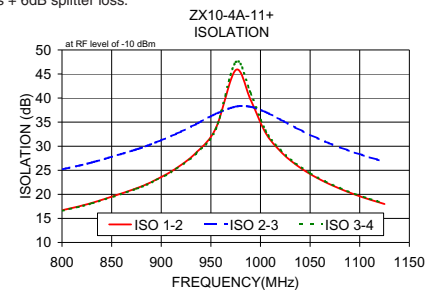
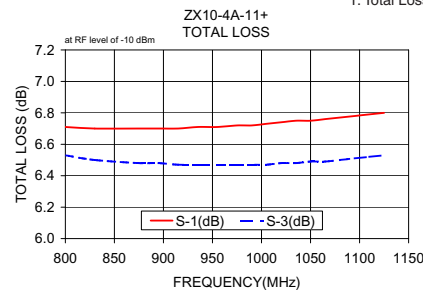
## Electrical Specifications (T<sub>AMB</sub>=25°C)

| FREQ. RANGE (MHz)              | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 6 dB |      | PHASE UNBALANCE (Deg.) | AMPLITUDE UNBALANCE (dB) | INPUT VSWR (:1) | OUTPUT VSWR (:1) |
|--------------------------------|----------------|------|--------------------------------|------|------------------------|--------------------------|-----------------|------------------|
| f <sub>L</sub> -f <sub>U</sub> | Typ.           | Min. | Typ.                           | Max. | Max.                   | Max.                     | Typ.            | Typ.             |
| 800-1125                       | 20             | 14   | 0.6                            | 1.1  | 4.0                    | 0.7                      | 1.2             | 1.2              |
| 875-1050                       | 24             | 18   | 0.6                            | 1.0  | 4.0                    | 0.6                      | 1.2             | 1.2              |

## 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   |                     |        |        |        |        |        |
| 800.00      | 6.71                         | 6.70 | 6.53 | 6.55 | 0.19             | 16.69          | 25.18 | 16.58 | 1.21                | 1.39   | 1.12   | 1.12   | 1.13   | 1.15   |
| 830.00      | 6.70                         | 6.69 | 6.50 | 6.52 | 0.20             | 18.22          | 26.62 | 18.12 | 1.17                | 1.34   | 1.13   | 1.13   | 1.14   | 1.16   |
| 875.00      | 6.70                         | 6.70 | 6.48 | 6.49 | 0.22             | 21.25          | 29.33 | 21.16 | 1.09                | 1.27   | 1.14   | 1.15   | 1.16   | 1.18   |
| 915.00      | 6.70                         | 6.71 | 6.47 | 6.46 | 0.25             | 25.40          | 32.57 | 25.26 | 1.17                | 1.22   | 1.15   | 1.16   | 1.17   | 1.19   |
| 935.00      | 6.71                         | 6.71 | 6.47 | 6.45 | 0.27             | 28.62          | 34.57 | 28.44 | 1.20                | 1.20   | 1.15   | 1.16   | 1.17   | 1.19   |
| 955.00      | 6.71                         | 6.73 | 6.47 | 6.44 | 0.29             | 33.76          | 36.72 | 33.55 | 1.24                | 1.18   | 1.16   | 1.17   | 1.17   | 1.19   |
| 975.00      | 6.72                         | 6.74 | 6.47 | 6.43 | 0.31             | 45.82          | 38.22 | 47.46 | 1.27                | 1.17   | 1.16   | 1.18   | 1.18   | 1.20   |
| 1005.00     | 6.73                         | 6.76 | 6.47 | 6.42 | 0.34             | 32.83          | 37.11 | 33.30 | 1.29                | 1.15   | 1.16   | 1.18   | 1.18   | 1.20   |
| 1020.00     | 6.74                         | 6.77 | 6.48 | 6.42 | 0.35             | 28.96          | 35.53 | 29.27 | 1.33                | 1.14   | 1.17   | 1.18   | 1.18   | 1.20   |
| 1035.00     | 6.75                         | 6.79 | 6.48 | 6.42 | 0.37             | 26.28          | 33.89 | 26.49 | 1.32                | 1.14   | 1.17   | 1.18   | 1.19   | 1.20   |
| 1050.00     | 6.75                         | 6.80 | 6.49 | 6.42 | 0.38             | 24.23          | 32.37 | 24.40 | 1.34                | 1.13   | 1.17   | 1.19   | 1.19   | 1.21   |
| 1065.00     | 6.76                         | 6.81 | 6.49 | 6.42 | 0.39             | 22.57          | 30.98 | 22.73 | 1.37                | 1.13   | 1.17   | 1.19   | 1.19   | 1.21   |
| 1080.00     | 6.77                         | 6.82 | 6.50 | 6.41 | 0.41             | 21.17          | 29.77 | 21.33 | 1.42                | 1.13   | 1.17   | 1.19   | 1.19   | 1.21   |
| 1095.00     | 6.78                         | 6.84 | 6.51 | 6.41 | 0.42             | 19.97          | 28.67 | 20.13 | 1.48                | 1.13   | 1.17   | 1.19   | 1.19   | 1.21   |
| 1125.00     | 6.80                         | 6.86 | 6.53 | 6.42 | 0.45             | 17.99          | 26.78 | 18.14 | 1.55                | 1.13   | 1.17   | 1.20   | 1.19   | 1.21   |

1. Total Loss = Insertion Loss + 6dB splitter loss.



## electrical schematic



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