

Coaxial

# Power Splitter/Combiner

4 Way-0° 50Ω

1675 to 2350 MHz

ZX10-4A-24+

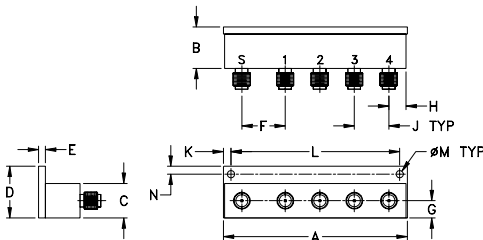
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| 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, 0.8 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

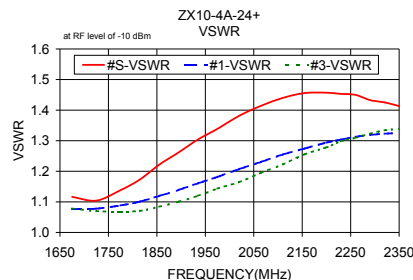
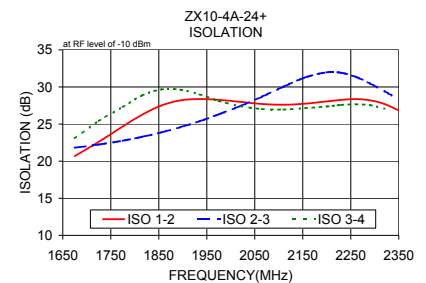
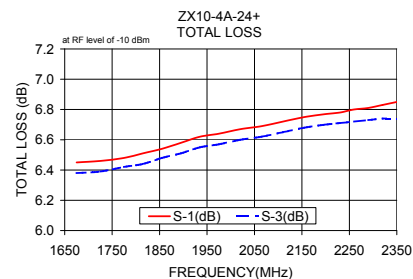
## Electrical Specifications (T<sub>AMB</sub>=25°C)

| 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>c</sub> -f <sub>u</sub> | Typ. Min.      | Typ. Max.                      | Max.                   | Max.                     | Typ.            | Typ.             |
| 1675-2350                      | 20 18          | 0.8 1.2                        | 7.0                    | 0.6                      | 1.35            | 1.3              |
| 1775-2200                      | 25 20          | 0.8 1.2                        | 6.0                    | 0.6                      | 1.4             | 1.3              |

## 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   |                     |        |        |        |        |        |
| 1675.00     | 6.45                         | 6.67 | 6.38 | 6.38 | 0.30             | 20.68          | 21.82 | 20.97 | 1.04                | 1.12   | 1.08   | 1.12   | 1.08   | 1.11   |
| 1725.00     | 6.46                         | 6.69 | 6.39 | 6.37 | 0.32             | 22.61          | 22.24 | 23.07 | 1.08                | 1.10   | 1.08   | 1.14   | 1.07   | 1.11   |
| 1775.00     | 6.48                         | 6.71 | 6.42 | 6.39 | 0.33             | 24.68          | 22.76 | 25.41 | 1.24                | 1.14   | 1.09   | 1.12   | 1.07   | 1.12   |
| 1815.00     | 6.51                         | 6.75 | 6.44 | 6.39 | 0.35             | 26.25          | 23.28 | 27.30 | 1.43                | 1.17   | 1.10   | 1.15   | 1.07   | 1.13   |
| 1855.00     | 6.54                         | 6.78 | 6.48 | 6.42 | 0.37             | 27.50          | 23.87 | 28.85 | 1.58                | 1.22   | 1.12   | 1.15   | 1.08   | 1.14   |
| 1895.00     | 6.58                         | 6.82 | 6.51 | 6.43 | 0.39             | 28.19          | 24.58 | 29.67 | 1.76                | 1.26   | 1.14   | 1.17   | 1.10   | 1.16   |
| 1935.00     | 6.62                         | 6.86 | 6.55 | 6.45 | 0.41             | 28.37          | 25.39 | 29.62 | 1.88                | 1.30   | 1.16   | 1.19   | 1.12   | 1.18   |
| 1975.00     | 6.64                         | 6.88 | 6.57 | 6.45 | 0.43             | 28.27          | 26.31 | 29.00 | 2.02                | 1.34   | 1.18   | 1.21   | 1.14   | 1.20   |
| 2020.00     | 6.67                         | 6.89 | 6.60 | 6.46 | 0.43             | 27.99          | 27.43 | 28.11 | 2.14                | 1.38   | 1.21   | 1.23   | 1.16   | 1.22   |
| 2065.00     | 6.69                         | 6.91 | 6.62 | 6.47 | 0.43             | 27.71          | 28.69 | 27.41 | 2.31                | 1.41   | 1.23   | 1.27   | 1.20   | 1.25   |
| 2110.00     | 6.72                         | 6.92 | 6.65 | 6.49 | 0.43             | 27.61          | 30.04 | 27.03 | 2.52                | 1.44   | 1.26   | 1.27   | 1.22   | 1.28   |
| 2155.00     | 6.75                         | 6.93 | 6.68 | 6.51 | 0.42             | 27.75          | 31.28 | 26.96 | 2.70                | 1.46   | 1.27   | 1.32   | 1.26   | 1.30   |
| 2200.00     | 6.77                         | 6.93 | 6.70 | 6.51 | 0.42             | 28.05          | 31.98 | 27.15 | 2.86                | 1.46   | 1.29   | 1.31   | 1.28   | 1.32   |
| 2230.00     | 6.78                         | 6.92 | 6.71 | 6.51 | 0.41             | 28.26          | 31.91 | 27.37 | 2.98                | 1.45   | 1.30   | 1.32   | 1.30   | 1.34   |
| 2260.00     | 6.80                         | 6.92 | 6.72 | 6.52 | 0.40             | 28.37          | 31.37 | 27.58 | 3.14                | 1.45   | 1.31   | 1.36   | 1.31   | 1.35   |
| 2290.00     | 6.81                         | 6.91 | 6.73 | 6.51 | 0.40             | 28.20          | 30.47 | 27.67 | 3.25                | 1.43   | 1.32   | 1.32   | 1.32   | 1.36   |
| 2320.00     | 6.83                         | 6.90 | 6.74 | 6.51 | 0.38             | 27.71          | 29.43 | 27.55 | 3.34                | 1.43   | 1.32   | 1.36   | 1.33   | 1.37   |
| 2350.00     | 6.85                         | 6.89 | 6.74 | 6.51 | 0.38             | 26.84          | 28.30 | 27.07 | 3.52                | 1.41   | 1.33   | 1.38   | 1.34   | 1.37   |

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



## electrical schematic



## Notes

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