

Coaxial

# Power Splitter/Combiner

ZX10-2-71+

2 Way-0° 50Ω 2950 to 7100 MHz

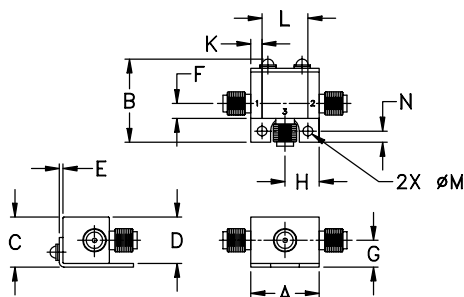
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -40°C to 85°C  |
| Storage Temperature                                             | -55°C to 100°C |
| Power Input (as a splitter)                                     | 1.0W max.      |
| Internal Dissipation (as a combiner)                            | 0.125W max.    |
| Permanent damage may occur if any of these limits are exceeded. |                |

## Coaxial Connections

|          |   |
|----------|---|
| SUM PORT | 3 |
| PORT 1   | 1 |
| PORT 2   | 2 |

## Outline Drawing



## Outline Dimensions (inch/mm)

| A     | B     | C     | D     | E    | F    | G    |
|-------|-------|-------|-------|------|------|------|
| .74   | .90   | .54   | .50   | .04  | .16  | .29  |
| 18.80 | 22.86 | 13.72 | 12.70 | 1.02 | 4.06 | 7.37 |

| H    | J  | K    | L     | M    | N    | wt    |
|------|----|------|-------|------|------|-------|
| .37  | -- | .122 | .496  | .106 | .122 | grams |
| 9.40 | -- | 3.10 | 12.60 | 2.69 | 3.10 | 20.0  |

## Features

- low insertion loss, 0.25 dB typ.
- excellent amplitude unbalance
- very good phase unbalance
- small size
- low cost
- protected under U.S. Patent 6,790,049 & 6,963,255

## Applications

- SHF
- communications
- defense
- cable tv relay

CASE STYLE: FL905

| Connectors | Model        | Price   | Qty.   |
|------------|--------------|---------|--------|
| SMA        | ZX10-2-71-S+ | \$34.95 | (1-24) |

+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS  
Compliance. See our web site for RoHS Compliance  
methodologies and qualifications.

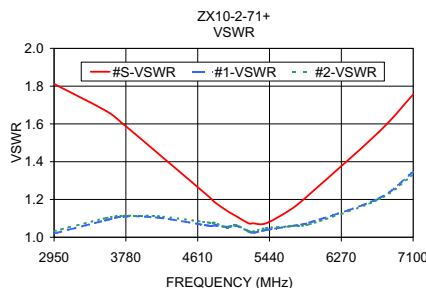
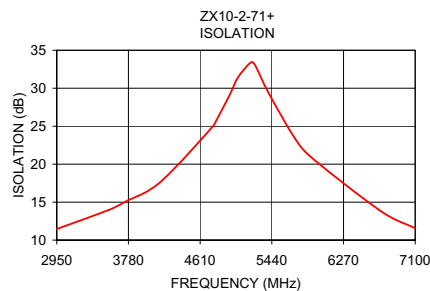
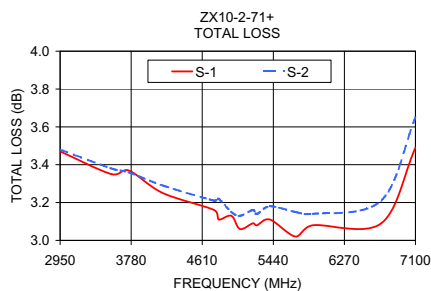
## Electrical Specifications (T<sub>AMB</sub>=25°C)

| FREQ.<br>RANGE<br>(MHz)        | ISOLATION<br>(dB) |     | INSERTION LOSS (dB)<br>ABOVE 3.0 dB |      | PHASE<br>UNBALANCE<br>(Degrees) | AMPLITUDE<br>UNBALANCE<br>(dB) |
|--------------------------------|-------------------|-----|-------------------------------------|------|---------------------------------|--------------------------------|
| f <sub>L</sub> -f <sub>U</sub> | Typ.              | Min | Typ.                                | Max. | Max.                            | Max.                           |
| 2950-7100                      | 23                | 10  | 0.25                                | 0.9  | 3.0                             | 0.4                            |
| 4500-5700                      | 23                | 18  | 0.2                                 | 0.4  | 3.0                             | 0.3                            |

## Typical Performance Data

| Frequency<br>(MHz) | Total Loss <sup>1</sup><br>(dB) |      | Amplitude<br>Unbalance<br>(dB) | Isolation<br>(dB) | Phase<br>Unbalance<br>(deg.) | VSWR<br>S | VSWR<br>1 | VSWR<br>2 |
|--------------------|---------------------------------|------|--------------------------------|-------------------|------------------------------|-----------|-----------|-----------|
|                    | S-1                             | S-2  |                                |                   |                              |           |           |           |
| 2950.00            | 3.47                            | 3.48 | 0.01                           | 11.46             | 0.55                         | 1.81      | 1.02      | 1.03      |
| 3550.00            | 3.35                            | 3.38 | 0.03                           | 13.97             | 0.48                         | 1.67      | 1.09      | 1.10      |
| 3750.00            | 3.37                            | 3.36 | 0.01                           | 15.10             | 0.44                         | 1.60      | 1.11      | 1.11      |
| 4150.00            | 3.25                            | 3.29 | 0.04                           | 17.65             | 0.45                         | 1.44      | 1.10      | 1.11      |
| 4750.00            | 3.16                            | 3.21 | 0.04                           | 24.89             | 0.67                         | 1.21      | 1.06      | 1.08      |
| 4800.00            | 3.11                            | 3.22 | 0.10                           | 25.83             | 0.43                         | 1.19      | 1.06      | 1.08      |
| 4950.00            | 3.13                            | 3.15 | 0.02                           | 29.08             | 0.53                         | 1.14      | 1.05      | 1.05      |
| 5050.00            | 3.06                            | 3.13 | 0.07                           | 31.47             | 0.54                         | 1.11      | 1.06      | 1.07      |
| 5200.00            | 3.09                            | 3.16 | 0.08                           | 33.43             | 0.44                         | 1.07      | 1.03      | 1.03      |
| 5250.00            | 3.08                            | 3.14 | 0.06                           | 32.96             | 0.41                         | 1.07      | 1.02      | 1.03      |
| 5400.00            | 3.11                            | 3.18 | 0.08                           | 29.44             | 0.66                         | 1.07      | 1.04      | 1.05      |
| 5700.00            | 3.02                            | 3.15 | 0.13                           | 23.53             | 0.70                         | 1.15      | 1.06      | 1.06      |
| 5900.00            | 3.08                            | 3.14 | 0.07                           | 20.87             | 0.76                         | 1.23      | 1.08      | 1.07      |
| 6700.00            | 3.09                            | 3.21 | 0.12                           | 13.84             | 0.64                         | 1.56      | 1.21      | 1.20      |
| 7100.00            | 3.49                            | 3.65 | 0.16                           | 11.55             | 0.30                         | 1.76      | 1.35      | 1.33      |

1. Total Loss = Insertion Loss + 3dB splitter loss.



## electrical schematic



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