

# Power Splitter/Combiner

ZX10-2-722-S+

2 Way-0° 50Ω 2800 to 7200 MHz

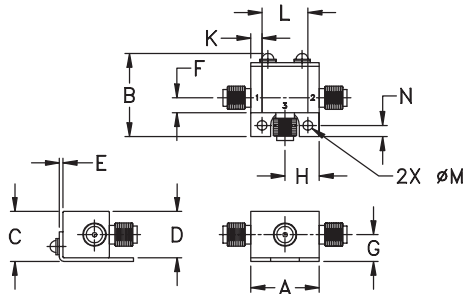
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -40°C to 85°C  |
| Storage Temperature                                             | -55°C to 100°C |
| Power Input (as a splitter)                                     | 1.5W max.      |
| Internal Dissipation (as a combiner)                            | 0.75W 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

- wide bandwidth, 2800 to 7200 MHz
- excellent amplitude unbalance, 0.05 dB typ.
- very good phase unbalance, 1 deg. typ.
- small size
- low cost
- protected under U.S. Patent 6,790,049

## Applications

- WiMax
- radar
- ISM
- WLAN
- instrumentation
- Satellite communications

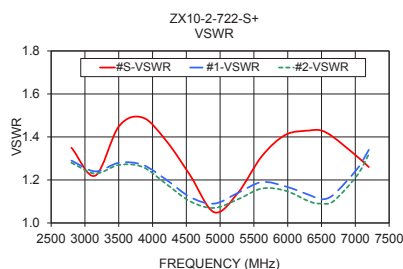
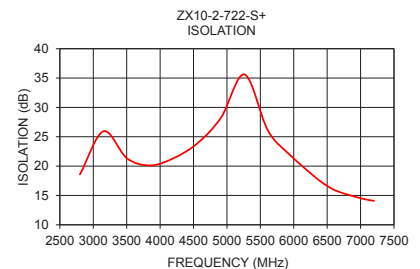
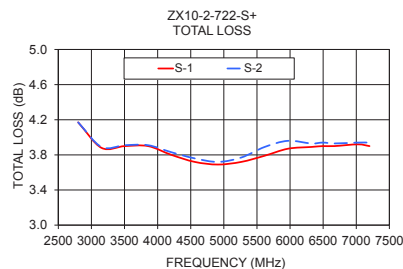
## Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 3.0 dB |      | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) |
|-------------------|----------------|------|----------------------------------|------|---------------------------|--------------------------|
| $f_L$ - $f_U$     | Typ.           | Min. | Typ.                             | Max. | Max.                      | Max.                     |
| 2800-7200         | 22             | 11   | 0.8                              | 1.6  | 10                        | 0.4                      |

## Typical Performance Data

| Frequency (MHz) | Total Loss <sup>1</sup> (dB) |      | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
|                 | S-1                          | S-2  |                          |                |                        |        |        |        |
| 2800.0          | 4.17                         | 4.17 | 0.00                     | 18.58          | 0.47                   | 1.35   | 1.29   | 1.28   |
| 3152.0          | 3.88                         | 3.89 | 0.01                     | 25.93          | 0.57                   | 1.22   | 1.24   | 1.23   |
| 3504.0          | 3.90                         | 3.91 | 0.01                     | 21.32          | 0.59                   | 1.45   | 1.28   | 1.27   |
| 3856.0          | 3.90                         | 3.91 | 0.01                     | 20.11          | 0.56                   | 1.49   | 1.27   | 1.26   |
| 4208.0          | 3.80                         | 3.83 | 0.03                     | 21.38          | 0.65                   | 1.38   | 1.20   | 1.18   |
| 4560.0          | 3.72                         | 3.76 | 0.04                     | 23.90          | 0.79                   | 1.22   | 1.12   | 1.10   |
| 4912.0          | 3.69                         | 3.72 | 0.03                     | 28.26          | 0.87                   | 1.05   | 1.09   | 1.07   |
| 5264.0          | 3.72                         | 3.77 | 0.05                     | 35.61          | 0.82                   | 1.14   | 1.14   | 1.11   |
| 5616.0          | 3.79                         | 3.89 | 0.11                     | 26.01          | 0.83                   | 1.31   | 1.19   | 1.16   |
| 5968.0          | 3.87                         | 3.96 | 0.09                     | 21.65          | 0.86                   | 1.41   | 1.17   | 1.15   |
| 6320.0          | 3.89                         | 3.93 | 0.05                     | 18.13          | 0.95                   | 1.43   | 1.13   | 1.10   |
| 6496.0          | 3.90                         | 3.94 | 0.04                     | 16.66          | 0.95                   | 1.43   | 1.11   | 1.09   |
| 6672.0          | 3.90                         | 3.93 | 0.03                     | 15.63          | 0.91                   | 1.40   | 1.13   | 1.10   |
| 7024.0          | 3.92                         | 3.94 | 0.02                     | 14.46          | 0.82                   | 1.31   | 1.25   | 1.22   |
| 7200.0          | 3.90                         | 3.94 | 0.04                     | 14.08          | 0.79                   | 1.26   | 1.34   | 1.32   |

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.  
 C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

