

## Engineering Development Model

# Power Splitter/Combiner 3ZB2CS-ED12266/2 2 Way-0°

### Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : 99-01-1174

| ELECTRICAL SPECIFICATIONS 50Ω @ +25°C |                |      |       |            |
|---------------------------------------|----------------|------|-------|------------|
| Parameter                             |                | Min. | Typ.  | Max. Units |
| Frequency                             |                | 820  |       | 1000 MHz   |
| Isolation                             | 820 - 1000 MHz |      | 26    | dB         |
| Insertion Loss Above 3.0 dB           | 820 - 1000 MHz |      | 0.15  | dB         |
| Phase Unbalance                       | 820 - 1000 MHz |      | 0.154 | deg.       |
| Amplitude Unbalance                   | 820 - 1000 MHz |      | 0.010 | dB         |
| VSWR                                  | SUM Port       |      | 1.15  | (:1)       |
|                                       | OUT Ports      |      | 1.15  | (:1)       |

| MAXIMUM RATINGS       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |

### Functional Diagram



# 2 Way-0° Power Splitter/Combiner

3ZB2CS-ED12266/2

## Typical Performance Data

| FREQ.<br>(MHz) | TOTAL LOSS <sup>1</sup><br>(dB) |      | AMP.<br>UNBAL.<br>(dB) | ISOLATION<br>(dB) | PHASE<br>UNBAL.<br>(deg.) | FREQ.<br>(MHz) | VSWR<br>(:1) |      |      |
|----------------|---------------------------------|------|------------------------|-------------------|---------------------------|----------------|--------------|------|------|
|                | S-1                             | S-2  |                        |                   |                           |                | S            | 1    | 2    |
| 750.0          | 3.27                            | 3.33 | 0.06                   | 11.33             | 0.69                      | 750.0          | 1.49         | 1.41 | 1.40 |
| 760.0          | 3.22                            | 3.30 | 0.08                   | 12.05             | 0.30                      | 760.0          | 1.42         | 1.31 | 1.30 |
| 770.0          | 3.20                            | 3.24 | 0.04                   | 12.86             | 0.01                      | 770.0          | 1.37         | 1.23 | 1.22 |
| 780.0          | 3.20                            | 3.20 | 0.00                   | 13.81             | 0.01                      | 780.0          | 1.32         | 1.16 | 1.15 |
| 790.0          | 3.20                            | 3.18 | 0.02                   | 14.93             | 0.16                      | 790.0          | 1.27         | 1.10 | 1.10 |
| 800.0          | 3.18                            | 3.17 | 0.01                   | 16.24             | 0.34                      | 800.0          | 1.23         | 1.06 | 1.07 |
| 810.0          | 3.16                            | 3.18 | 0.02                   | 17.73             | 0.36                      | 810.0          | 1.19         | 1.04 | 1.05 |
| 820.0          | 3.14                            | 3.17 | 0.03                   | 19.36             | 0.25                      | 820.0          | 1.15         | 1.04 | 1.05 |
| 830.0          | 3.13                            | 3.16 | 0.03                   | 21.14             | 0.12                      | 830.0          | 1.12         | 1.05 | 1.06 |
| 840.0          | 3.12                            | 3.13 | 0.01                   | 23.09             | 0.04                      | 840.0          | 1.09         | 1.07 | 1.07 |
| 850.0          | 3.12                            | 3.12 | 0.00                   | 25.36             | 0.04                      | 850.0          | 1.07         | 1.08 | 1.08 |
| 852.5          | 3.12                            | 3.11 | 0.01                   | 25.99             | 0.06                      | 852.5          | 1.06         | 1.08 | 1.08 |
| 855.0          | 3.12                            | 3.11 | 0.01                   | 26.68             | 0.06                      | 855.0          | 1.06         | 1.08 | 1.08 |
| 857.5          | 3.12                            | 3.11 | 0.01                   | 27.42             | 0.07                      | 857.5          | 1.05         | 1.08 | 1.08 |
| 860.0          | 3.13                            | 3.11 | 0.01                   | 28.21             | 0.09                      | 860.0          | 1.05         | 1.08 | 1.08 |
| 862.5          | 3.13                            | 3.12 | 0.01                   | 29.07             | 0.09                      | 862.5          | 1.04         | 1.08 | 1.08 |
| 865.0          | 3.13                            | 3.12 | 0.02                   | 30.01             | 0.12                      | 865.0          | 1.04         | 1.08 | 1.08 |
| 867.5          | 3.14                            | 3.12 | 0.02                   | 31.05             | 0.15                      | 867.5          | 1.04         | 1.08 | 1.08 |
| 870.0          | 3.14                            | 3.12 | 0.02                   | 32.20             | 0.15                      | 870.0          | 1.04         | 1.08 | 1.08 |
| 872.5          | 3.14                            | 3.12 | 0.02                   | 33.46             | 0.17                      | 872.5          | 1.04         | 1.08 | 1.07 |
| 875.0          | 3.14                            | 3.13 | 0.01                   | 34.85             | 0.17                      | 875.0          | 1.04         | 1.08 | 1.07 |
| 877.5          | 3.14                            | 3.13 | 0.01                   | 36.31             | 0.19                      | 877.5          | 1.04         | 1.07 | 1.07 |
| 880.0          | 3.15                            | 3.13 | 0.01                   | 37.69             | 0.18                      | 880.0          | 1.04         | 1.07 | 1.07 |
| 882.5          | 3.15                            | 3.14 | 0.01                   | 38.70             | 0.19                      | 882.5          | 1.04         | 1.07 | 1.06 |
| 885.0          | 3.15                            | 3.14 | 0.01                   | 38.96             | 0.18                      | 885.0          | 1.04         | 1.07 | 1.06 |
| 887.5          | 3.15                            | 3.14 | 0.01                   | 38.35             | 0.19                      | 887.5          | 1.05         | 1.06 | 1.06 |
| 890.0          | 3.15                            | 3.14 | 0.01                   | 37.22             | 0.19                      | 890.0          | 1.05         | 1.06 | 1.05 |
| 892.5          | 3.15                            | 3.14 | 0.01                   | 35.90             | 0.20                      | 892.5          | 1.06         | 1.06 | 1.05 |
| 895.0          | 3.15                            | 3.15 | 0.01                   | 34.61             | 0.19                      | 895.0          | 1.06         | 1.05 | 1.04 |
| 897.5          | 3.15                            | 3.15 | 0.01                   | 33.44             | 0.19                      | 897.5          | 1.07         | 1.05 | 1.04 |
| 900.0          | 3.15                            | 3.15 | 0.01                   | 32.40             | 0.20                      | 900.0          | 1.07         | 1.04 | 1.03 |
| 910.0          | 3.16                            | 3.15 | 0.00                   | 29.35             | 0.23                      | 910.0          | 1.09         | 1.02 | 1.01 |
| 920.0          | 3.15                            | 3.15 | 0.00                   | 27.57             | 0.24                      | 920.0          | 1.11         | 1.01 | 1.01 |
| 930.0          | 3.14                            | 3.15 | 0.01                   | 26.63             | 0.19                      | 930.0          | 1.13         | 1.03 | 1.04 |
| 940.0          | 3.14                            | 3.14 | 0.00                   | 26.28             | 0.15                      | 940.0          | 1.14         | 1.05 | 1.07 |
| 950.0          | 3.14                            | 3.14 | 0.00                   | 26.31             | 0.15                      | 950.0          | 1.16         | 1.08 | 1.10 |
| 960.0          | 3.14                            | 3.15 | 0.00                   | 26.53             | 0.17                      | 960.0          | 1.17         | 1.11 | 1.13 |
| 970.0          | 3.15                            | 3.15 | 0.00                   | 26.73             | 0.18                      | 970.0          | 1.19         | 1.14 | 1.16 |
| 980.0          | 3.17                            | 3.17 | 0.00                   | 26.81             | 0.15                      | 980.0          | 1.20         | 1.17 | 1.20 |
| 990.0          | 3.19                            | 3.19 | 0.01                   | 26.82             | 0.13                      | 990.0          | 1.21         | 1.21 | 1.23 |
| 1000.0         | 3.21                            | 3.19 | 0.01                   | 26.87             | 0.17                      | 1000.0         | 1.22         | 1.24 | 1.26 |

<sup>1</sup> Total Loss = Insertion Loss + 3dB Splitter Loss

REV. X2

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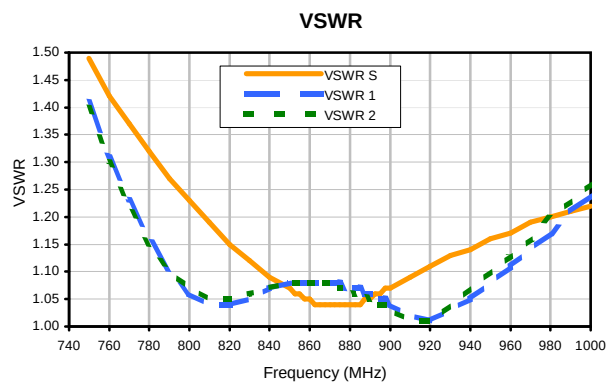
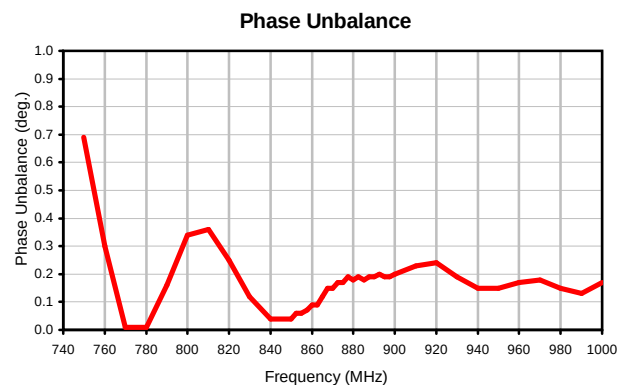
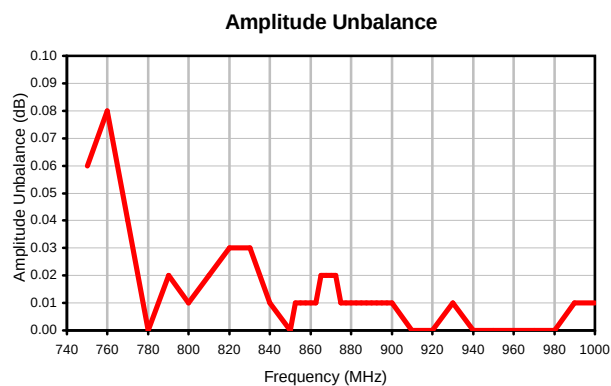
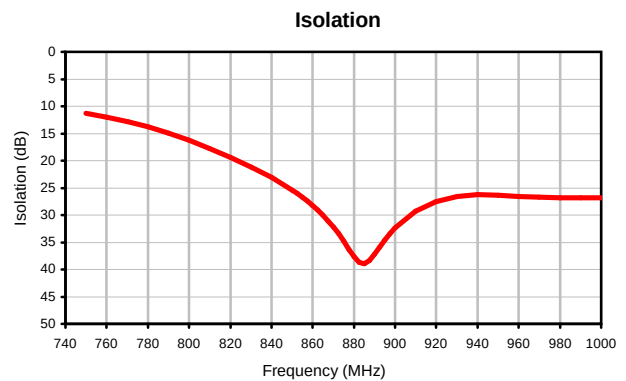
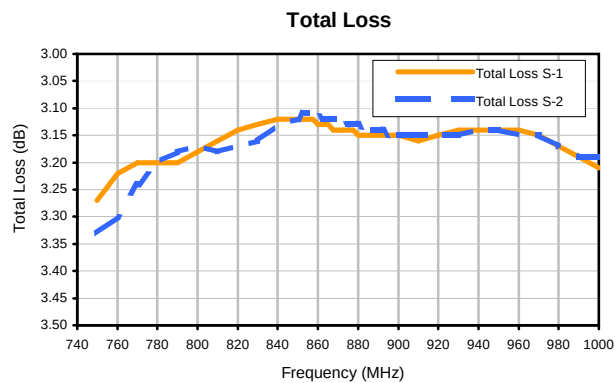
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# 2 Way-0° Power Splitter/Combiner

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## Typical Performance Curves



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| Specification              | Test/Inspection Condition                                                              | Reference/Spec                       |
|----------------------------|----------------------------------------------------------------------------------------|--------------------------------------|
| Operating Temperature      | -55° to 100°C<br>Ambient Environment                                                   | Individual Model Data Sheet          |
| Storage Temperature        | -55° to 100° C<br>Ambient Environment                                                  | Individual Model Data Sheet          |
| Barometric Pressure        | 100,000 Feet                                                                           | MIL-STD-202, Method 105, Condition D |
| Humidity                   | 90% RH, 65°C<br>Units may require bake-out after humidity to restore full performance. | MIL-STD-202, Method 103              |
| Thermal Shock              | -65° to 125°C, 5 cycles                                                                | MIL-STD-202, Method 107, Condition B |
| Vibration (High Frequency) | 20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)    | MIL-STD-202, Method 204, Condition D |
| Mechanical Shock           | 100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)                          | MIL-STD-202, Method 213, Condition I |