

# Power Splitter/Combiner with amplifier

2 Way-0°

ZAPD-ED10492A/1

## 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.



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CASE STYLE : 99-01-929

| ELECTRICAL SPECIFICATIONS 50Ω @ +25°C |                 |      |         |            |
|---------------------------------------|-----------------|------|---------|------------|
| Parameter                             |                 | Min. | Typ.    | Max. Units |
| Frequency                             |                 | 1090 |         | 1900 MHz   |
| Isolation                             | 1090 - 1900 MHz |      | 35      | dB         |
| Gain                                  | 1090 - 1900 MHz |      | 3.80    | dB         |
| Amplitude Unbalance                   | 1090 - 1900 MHz |      | 0.06    | dB         |
| VSWR                                  | SUM Port        |      | 1.27    | (:1)       |
|                                       | OUT Ports       |      | 1.11    | (:1)       |
| Noise Figure                          | 1545-1605 MHz   |      | 3.00    | dB         |
| DC Power                              |                 |      | 4.5-5.5 | V          |

| MAXIMUM RATINGS       |              |
|-----------------------|--------------|
| Operating Temperature | -5°C to 70°C |
| Storage Temperature   | -5°C to 70°C |

| COAXIAL CONNECTIONS |                 |
|---------------------|-----------------|
| ANTENNA IN          | J1              |
| OUTPUT PROVIDING DC | J2              |
| OUTPUT PROVIDING DC | J3, Right Angle |

## Functional Diagram



## Typical Performance Data

| FREQUENCY<br>(MHz) | GAIN<br>(dB) |      | AMPLITUDE<br>UNBALANCE<br>(dB) | ISOLATION<br>(dB) | FREQUENCY<br>(MHz) | VSWR<br>(:1) |      |      | FREQUENCY<br>(MHz) | NOISE FIGURE<br>(dB) |
|--------------------|--------------|------|--------------------------------|-------------------|--------------------|--------------|------|------|--------------------|----------------------|
|                    | S-1          | S-2  |                                |                   |                    | S            | 1    | 2    |                    |                      |
| 1090.00            | 4.65         | 4.70 | 0.05                           | 32.07             | 1090.00            | 1.73         | 1.24 | 1.32 | 1545.00            | 2.87                 |
| 1120.00            | 4.60         | 4.68 | 0.08                           | 32.60             | 1120.00            | 1.65         | 1.23 | 1.31 | 1548.00            | 2.88                 |
| 1150.00            | 4.60         | 4.65 | 0.05                           | 33.13             | 1150.00            | 1.57         | 1.22 | 1.29 | 1551.00            | 2.88                 |
| 1180.00            | 4.53         | 4.57 | 0.04                           | 33.56             | 1180.00            | 1.51         | 1.21 | 1.27 | 1554.00            | 2.87                 |
| 1210.00            | 4.50         | 4.55 | 0.05                           | 33.94             | 1210.00            | 1.44         | 1.19 | 1.26 | 1557.00            | 2.89                 |
| 1240.00            | 4.45         | 4.48 | 0.03                           | 34.44             | 1240.00            | 1.39         | 1.18 | 1.25 | 1560.00            | 2.87                 |
| 1270.00            | 4.38         | 4.41 | 0.03                           | 34.85             | 1270.00            | 1.34         | 1.17 | 1.23 | 1563.00            | 2.89                 |
| 1300.00            | 4.34         | 4.39 | 0.05                           | 35.15             | 1300.00            | 1.29         | 1.16 | 1.22 | 1566.00            | 2.85                 |
| 1330.00            | 4.26         | 4.26 | 0.00                           | 35.25             | 1330.00            | 1.26         | 1.15 | 1.20 | 1569.00            | 2.86                 |
| 1360.00            | 4.19         | 4.26 | 0.07                           | 35.53             | 1360.00            | 1.23         | 1.14 | 1.18 | 1572.00            | 2.88                 |
| 1390.00            | 4.15         | 4.13 | 0.02                           | 35.74             | 1390.00            | 1.20         | 1.13 | 1.17 | 1575.00            | 2.85                 |
| 1420.00            | 4.04         | 4.09 | 0.05                           | 36.15             | 1420.00            | 1.18         | 1.12 | 1.15 | 1578.00            | 2.85                 |
| 1450.00            | 4.01         | 4.00 | 0.01                           | 36.22             | 1450.00            | 1.16         | 1.11 | 1.14 | 1581.00            | 2.84                 |
| 1480.00            | 3.90         | 3.93 | 0.03                           | 36.17             | 1480.00            | 1.15         | 1.10 | 1.12 | 1584.00            | 2.85                 |
| 1510.00            | 3.82         | 3.83 | 0.01                           | 36.30             | 1510.00            | 1.15         | 1.09 | 1.11 | 1587.00            | 2.88                 |
| 1540.00            | 3.75         | 3.80 | 0.05                           | 36.18             | 1540.00            | 1.15         | 1.07 | 1.09 | 1590.00            | 2.90                 |
| 1545.00            | 3.74         | 3.77 | 0.03                           | 36.30             | 1545.00            | 1.15         | 1.07 | 1.09 | 1593.00            | 2.89                 |
| 1550.00            | 3.72         | 3.72 | 0.00                           | 36.30             | 1550.00            | 1.15         | 1.07 | 1.09 | 1596.00            | 2.91                 |
| 1555.00            | 3.70         | 3.69 | 0.01                           | 36.39             | 1555.00            | 1.15         | 1.07 | 1.09 | 1599.00            | 2.91                 |
| 1560.00            | 3.68         | 3.66 | 0.02                           | 36.25             | 1560.00            | 1.15         | 1.07 | 1.08 | 1602.00            | 2.89                 |
| 1565.00            | 3.66         | 3.63 | 0.03                           | 36.29             | 1565.00            | 1.15         | 1.07 | 1.08 | 1605.00            | 2.92                 |
| 1570.00            | 3.65         | 3.63 | 0.02                           | 36.16             | 1570.00            | 1.15         | 1.07 | 1.08 |                    |                      |
| 1575.00            | 3.63         | 3.64 | 0.01                           | 36.33             | 1575.00            | 1.15         | 1.07 | 1.08 |                    |                      |
| 1580.00            | 3.61         | 3.65 | 0.04                           | 36.31             | 1580.00            | 1.15         | 1.07 | 1.08 |                    |                      |
| 1585.00            | 3.61         | 3.67 | 0.06                           | 36.25             | 1585.00            | 1.15         | 1.07 | 1.07 |                    |                      |
| 1590.00            | 3.60         | 3.68 | 0.08                           | 36.24             | 1590.00            | 1.15         | 1.06 | 1.07 |                    |                      |
| 1595.00            | 3.60         | 3.68 | 0.08                           | 36.17             | 1595.00            | 1.15         | 1.06 | 1.07 |                    |                      |
| 1600.00            | 3.60         | 3.66 | 0.06                           | 36.18             | 1600.00            | 1.15         | 1.06 | 1.07 |                    |                      |
| 1605.00            | 3.60         | 3.63 | 0.03                           | 36.40             | 1605.00            | 1.15         | 1.06 | 1.07 |                    |                      |
| 1615.00            | 3.56         | 3.54 | 0.02                           | 36.23             | 1615.00            | 1.15         | 1.05 | 1.06 |                    |                      |
| 1630.00            | 3.47         | 3.45 | 0.02                           | 36.37             | 1630.00            | 1.16         | 1.04 | 1.06 |                    |                      |
| 1645.00            | 3.40         | 3.48 | 0.08                           | 36.13             | 1645.00            | 1.16         | 1.03 | 1.05 |                    |                      |
| 1660.00            | 3.37         | 3.48 | 0.11                           | 36.33             | 1660.00            | 1.17         | 1.03 | 1.05 |                    |                      |
| 1690.00            | 3.31         | 3.33 | 0.02                           | 36.03             | 1690.00            | 1.18         | 1.02 | 1.04 |                    |                      |
| 1720.00            | 3.19         | 3.28 | 0.09                           | 36.21             | 1720.00            | 1.19         | 1.01 | 1.03 |                    |                      |
| 1750.00            | 3.13         | 3.24 | 0.11                           | 36.06             | 1750.00            | 1.21         | 1.01 | 1.03 |                    |                      |
| 1780.00            | 3.03         | 3.11 | 0.08                           | 35.96             | 1780.00            | 1.22         | 1.01 | 1.02 |                    |                      |
| 1810.00            | 2.93         | 3.09 | 0.16                           | 35.73             | 1810.00            | 1.23         | 1.02 | 1.02 |                    |                      |
| 1840.00            | 2.86         | 3.01 | 0.15                           | 35.69             | 1840.00            | 1.24         | 1.02 | 1.02 |                    |                      |
| 1870.00            | 2.74         | 2.94 | 0.20                           | 35.26             | 1870.00            | 1.25         | 1.03 | 1.03 |                    |                      |
| 1900.00            | 2.66         | 2.95 | 0.29                           | 35.11             | 1900.00            | 1.27         | 1.04 | 1.04 |                    |                      |

## Typical Performance Curves

