

# 2 Way-90° Power Splitter/Combiner

# JSPQ-80

## Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C

| FREQ.<br>(MHz) | TOTAL LOSS <sup>1</sup><br>(dB) |      |      | AMP.<br>UNBAL.<br>(dB) | PHASE<br>UNBAL.<br>(deg.) | ISOLATION<br>(dB)<br>1-2 | VSWR<br>(:1) |      |      |
|----------------|---------------------------------|------|------|------------------------|---------------------------|--------------------------|--------------|------|------|
|                | S-1                             | S-2  | AVG. |                        |                           |                          | S            | 1    | 2    |
| 10             | 3.32                            | 3.29 | 3.30 | 0.03                   | 92.10                     | 38.90                    | 1.09         | 1.11 | 1.20 |
| 15             | 3.36                            | 3.28 | 3.32 | 0.08                   | 91.90                     | 39.92                    | 1.08         | 1.07 | 1.10 |
| 20             | 3.40                            | 3.29 | 3.34 | 0.11                   | 91.41                     | 40.50                    | 1.08         | 1.07 | 1.04 |
| 25             | 3.44                            | 3.33 | 3.39 | 0.11                   | 90.41                     | 40.80                    | 1.11         | 1.10 | 1.11 |
| 30             | 3.49                            | 3.38 | 3.43 | 0.11                   | 89.44                     | 40.96                    | 1.15         | 1.14 | 1.20 |
| 35             | 3.54                            | 3.43 | 3.49 | 0.10                   | 88.61                     | 40.99                    | 1.19         | 1.19 | 1.27 |
| 40             | 3.58                            | 3.50 | 3.54 | 0.08                   | 88.09                     | 40.92                    | 1.22         | 1.25 | 1.34 |
| 45             | 3.63                            | 3.53 | 3.58 | 0.10                   | 87.93                     | 40.73                    | 1.26         | 1.30 | 1.40 |
| 50             | 3.68                            | 3.59 | 3.63 | 0.09                   | 88.04                     | 40.52                    | 1.29         | 1.35 | 1.44 |
| 55             | 3.72                            | 3.62 | 3.67 | 0.10                   | 88.36                     | 40.16                    | 1.32         | 1.40 | 1.48 |
| 60             | 3.77                            | 3.65 | 3.71 | 0.12                   | 88.86                     | 39.80                    | 1.34         | 1.46 | 1.50 |
| 65             | 3.82                            | 3.68 | 3.75 | 0.14                   | 89.49                     | 39.46                    | 1.36         | 1.51 | 1.51 |
| 70             | 3.86                            | 3.70 | 3.78 | 0.16                   | 90.23                     | 38.94                    | 1.39         | 1.56 | 1.51 |
| 75             | 3.91                            | 3.71 | 3.81 | 0.20                   | 91.05                     | 38.64                    | 1.41         | 1.60 | 1.51 |
| 80             | 3.95                            | 3.73 | 3.84 | 0.22                   | 91.96                     | 38.27                    | 1.43         | 1.65 | 1.50 |
| 90             | 4.03                            | 3.74 | 3.88 | 0.29                   | 93.82                     | 37.80                    | 1.46         | 1.74 | 1.46 |
| 100            | 4.11                            | 3.76 | 3.94 | 0.35                   | 95.72                     | 37.62                    | 1.50         | 1.82 | 1.43 |
| 110            | 4.19                            | 3.77 | 3.98 | 0.42                   | 97.56                     | 37.37                    | 1.54         | 1.90 | 1.39 |
| 120            | 4.26                            | 3.79 | 4.02 | 0.47                   | 99.28                     | 37.07                    | 1.58         | 1.96 | 1.37 |

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

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# 2 Way-90° Power Splitter/Combiner

# JSPQ-80

## Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = -40°C

| FREQ.<br>(MHz) | TOTAL LOSS <sup>1</sup><br>(dB) |      |      | AMP.<br>UNBAL.<br>(dB) | PHASE<br>UNBAL.<br>(deg.) | ISOLATION<br>(dB)<br>1-2 | VSWR<br>(:1) |      |      |
|----------------|---------------------------------|------|------|------------------------|---------------------------|--------------------------|--------------|------|------|
|                | S-1                             | S-2  | AVG. |                        |                           |                          | S            | 1    | 2    |
| 10             | 3.29                            | 3.27 | 3.28 | 0.02                   | 92.09                     | 34.58                    | 1.09         | 1.09 | 1.20 |
| 15             | 3.31                            | 3.24 | 3.28 | 0.07                   | 91.99                     | 37.75                    | 1.08         | 1.08 | 1.10 |
| 20             | 3.34                            | 3.25 | 3.29 | 0.09                   | 91.50                     | 40.45                    | 1.08         | 1.08 | 1.04 |
| 25             | 3.37                            | 3.28 | 3.33 | 0.09                   | 90.54                     | 42.80                    | 1.10         | 1.10 | 1.11 |
| 30             | 3.40                            | 3.31 | 3.36 | 0.09                   | 89.55                     | 45.09                    | 1.14         | 1.14 | 1.20 |
| 35             | 3.45                            | 3.36 | 3.41 | 0.09                   | 88.72                     | 47.34                    | 1.17         | 1.19 | 1.28 |
| 40             | 3.50                            | 3.43 | 3.47 | 0.07                   | 88.20                     | 50.64                    | 1.21         | 1.24 | 1.36 |
| 45             | 3.54                            | 3.46 | 3.50 | 0.07                   | 88.05                     | 54.73                    | 1.25         | 1.29 | 1.42 |
| 50             | 3.59                            | 3.52 | 3.55 | 0.07                   | 88.14                     | 61.02                    | 1.29         | 1.35 | 1.48 |
| 55             | 3.64                            | 3.55 | 3.60 | 0.09                   | 88.45                     | 57.35                    | 1.32         | 1.41 | 1.51 |
| 60             | 3.69                            | 3.58 | 3.64 | 0.11                   | 88.95                     | 51.62                    | 1.35         | 1.47 | 1.54 |
| 65             | 3.75                            | 3.61 | 3.68 | 0.14                   | 89.56                     | 47.82                    | 1.38         | 1.53 | 1.55 |
| 70             | 3.79                            | 3.63 | 3.71 | 0.16                   | 90.33                     | 44.96                    | 1.41         | 1.59 | 1.54 |
| 75             | 3.84                            | 3.63 | 3.73 | 0.21                   | 91.21                     | 43.20                    | 1.43         | 1.65 | 1.53 |
| 80             | 3.88                            | 3.64 | 3.76 | 0.24                   | 92.15                     | 41.76                    | 1.46         | 1.70 | 1.51 |
| 90             | 3.96                            | 3.65 | 3.80 | 0.31                   | 94.14                     | 39.87                    | 1.50         | 1.80 | 1.46 |
| 100            | 4.02                            | 3.65 | 3.84 | 0.37                   | 96.19                     | 38.96                    | 1.53         | 1.88 | 1.42 |
| 110            | 4.09                            | 3.67 | 3.88 | 0.42                   | 98.13                     | 38.41                    | 1.57         | 1.94 | 1.39 |
| 120            | 4.14                            | 3.68 | 3.91 | 0.46                   | 99.86                     | 38.25                    | 1.60         | 2.00 | 1.37 |

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

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# 2 Way-90° Power Splitter/Combiner

# JSPQ-80

## Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @ Temperature = +85°C

| FREQ.<br>(MHz) | TOTAL LOSS <sup>1</sup><br>(dB) |      |      | AMP.<br>UNBAL.<br>(dB) | PHASE<br>UNBAL.<br>(deg.) | ISOLATION<br>(dB)<br>1-2 | VSWR<br>(:1) |      |      |
|----------------|---------------------------------|------|------|------------------------|---------------------------|--------------------------|--------------|------|------|
|                | S-1                             | S-2  | AVG. |                        |                           |                          | S            | 1    | 2    |
| 10             | 3.38                            | 3.35 | 3.37 | 0.03                   | 91.82                     | 35.15                    | 1.09         | 1.09 | 1.22 |
| 15             | 3.42                            | 3.34 | 3.38 | 0.08                   | 91.68                     | 34.95                    | 1.07         | 1.04 | 1.11 |
| 20             | 3.47                            | 3.36 | 3.41 | 0.11                   | 91.26                     | 34.78                    | 1.09         | 1.05 | 1.06 |
| 25             | 3.51                            | 3.41 | 3.46 | 0.10                   | 90.31                     | 34.60                    | 1.13         | 1.09 | 1.13 |
| 30             | 3.56                            | 3.46 | 3.51 | 0.10                   | 89.32                     | 34.37                    | 1.17         | 1.14 | 1.22 |
| 35             | 3.62                            | 3.53 | 3.58 | 0.08                   | 88.47                     | 34.13                    | 1.21         | 1.20 | 1.30 |
| 40             | 3.66                            | 3.59 | 3.63 | 0.07                   | 87.93                     | 33.94                    | 1.25         | 1.25 | 1.35 |
| 45             | 3.71                            | 3.63 | 3.67 | 0.08                   | 87.78                     | 33.73                    | 1.28         | 1.31 | 1.40 |
| 50             | 3.76                            | 3.68 | 3.72 | 0.08                   | 87.86                     | 33.57                    | 1.30         | 1.36 | 1.43 |
| 55             | 3.81                            | 3.71 | 3.76 | 0.10                   | 88.20                     | 33.42                    | 1.32         | 1.41 | 1.45 |
| 60             | 3.85                            | 3.73 | 3.79 | 0.12                   | 88.74                     | 33.38                    | 1.34         | 1.45 | 1.47 |
| 65             | 3.89                            | 3.76 | 3.82 | 0.13                   | 89.38                     | 33.40                    | 1.36         | 1.49 | 1.48 |
| 70             | 3.93                            | 3.78 | 3.86 | 0.15                   | 90.15                     | 33.37                    | 1.37         | 1.53 | 1.49 |
| 75             | 3.98                            | 3.80 | 3.89 | 0.18                   | 90.98                     | 33.50                    | 1.39         | 1.58 | 1.49 |
| 80             | 4.02                            | 3.81 | 3.91 | 0.21                   | 91.83                     | 33.63                    | 1.40         | 1.62 | 1.49 |
| 90             | 4.11                            | 3.84 | 3.97 | 0.27                   | 93.62                     | 34.11                    | 1.43         | 1.70 | 1.48 |
| 100            | 4.19                            | 3.85 | 4.02 | 0.34                   | 95.43                     | 34.78                    | 1.47         | 1.79 | 1.45 |
| 110            | 4.29                            | 3.87 | 4.08 | 0.42                   | 97.23                     | 35.27                    | 1.51         | 1.88 | 1.42 |
| 120            | 4.38                            | 3.90 | 4.14 | 0.48                   | 98.93                     | 35.36                    | 1.56         | 1.97 | 1.39 |

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

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