

2 Way-90° Power Splitter/Combiner

SCPQ-10.5+

Typical Performance Data

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

| FREQ. (MHz) | TOTAL LOSS ¹ (dB) | | AMP. UNBAL. (dB) | PHASE UNBAL. From 90° (deg.) | ISOLATION (dB) 1-2 | VSWR (:1) | | |
|----------------|---------------------------------|------|------------------------|------------------------------------|--------------------------|--------------|------|------|
| | S-1 | S-2 | | | | S | 1 | 2 |
| 5.0 | 7.02 | 1.03 | 5.99 | 0.28 | 28.36 | 1.05 | 1.06 | 1.06 |
| 5.5 | 6.38 | 1.21 | 5.17 | 0.29 | 27.90 | 1.06 | 1.06 | 1.06 |
| 6.0 | 5.82 | 1.40 | 4.43 | 0.29 | 27.52 | 1.06 | 1.06 | 1.06 |
| 6.5 | 5.33 | 1.59 | 3.74 | 0.26 | 27.20 | 1.06 | 1.07 | 1.07 |
| 7.0 | 4.90 | 1.80 | 3.10 | 0.27 | 27.01 | 1.07 | 1.07 | 1.07 |
| 7.3 | 4.70 | 1.90 | 2.80 | 0.25 | 26.91 | 1.07 | 1.07 | 1.07 |
| 7.5 | 4.51 | 2.00 | 2.51 | 0.24 | 26.83 | 1.07 | 1.07 | 1.07 |
| 7.8 | 4.33 | 2.10 | 2.23 | 0.24 | 26.77 | 1.07 | 1.07 | 1.07 |
| 8.0 | 4.16 | 2.20 | 1.96 | 0.24 | 26.72 | 1.07 | 1.07 | 1.07 |
| 8.3 | 4.01 | 2.31 | 1.69 | 0.23 | 26.68 | 1.07 | 1.07 | 1.07 |
| 8.5 | 3.85 | 2.42 | 1.44 | 0.21 | 26.65 | 1.07 | 1.07 | 1.08 |
| 8.8 | 3.72 | 2.52 | 1.20 | 0.19 | 26.63 | 1.07 | 1.07 | 1.08 |
| 9.0 | 3.58 | 2.62 | 0.95 | 0.19 | 26.61 | 1.07 | 1.08 | 1.08 |
| 9.3 | 3.45 | 2.74 | 0.72 | 0.18 | 26.61 | 1.07 | 1.08 | 1.08 |
| 9.5 | 3.33 | 2.84 | 0.49 | 0.18 | 26.60 | 1.07 | 1.08 | 1.08 |
| 9.8 | 3.22 | 2.95 | 0.27 | 0.16 | 26.62 | 1.07 | 1.08 | 1.08 |
| 10.0 | 3.11 | 3.06 | 0.05 | 0.17 | 26.63 | 1.07 | 1.08 | 1.08 |
| 10.3 | 3.00 | 3.16 | 0.16 | 0.17 | 26.65 | 1.07 | 1.08 | 1.08 |
| 10.5 | 2.90 | 3.26 | 0.36 | 0.12 | 26.68 | 1.07 | 1.08 | 1.08 |
| 10.8 | 2.81 | 3.37 | 0.56 | 0.10 | 26.71 | 1.07 | 1.08 | 1.08 |
| 11.0 | 2.72 | 3.48 | 0.76 | 0.10 | 26.76 | 1.07 | 1.08 | 1.08 |
| 11.3 | 2.64 | 3.58 | 0.95 | 0.10 | 26.78 | 1.07 | 1.08 | 1.08 |
| 11.5 | 2.56 | 3.68 | 1.13 | 0.09 | 26.85 | 1.07 | 1.08 | 1.08 |
| 11.8 | 2.47 | 3.79 | 1.32 | 0.06 | 26.88 | 1.08 | 1.08 | 1.08 |
| 12.0 | 2.39 | 3.89 | 1.50 | 0.06 | 26.95 | 1.08 | 1.08 | 1.08 |
| 12.3 | 2.33 | 4.00 | 1.67 | 0.05 | 27.00 | 1.08 | 1.08 | 1.08 |
| 12.5 | 2.26 | 4.10 | 1.84 | 0.05 | 27.06 | 1.08 | 1.08 | 1.08 |
| 12.8 | 2.19 | 4.20 | 2.01 | 0.02 | 27.12 | 1.08 | 1.08 | 1.08 |
| 13.0 | 2.13 | 4.30 | 2.18 | 0.00 | 27.20 | 1.08 | 1.08 | 1.08 |
| 13.3 | 2.07 | 4.41 | 2.34 | 0.01 | 27.28 | 1.08 | 1.08 | 1.08 |
| 13.5 | 2.01 | 4.50 | 2.48 | 0.01 | 27.34 | 1.08 | 1.08 | 1.08 |
| 13.8 | 1.96 | 4.60 | 2.65 | 0.02 | 27.42 | 1.08 | 1.08 | 1.09 |
| 14.0 | 1.90 | 4.70 | 2.80 | 0.03 | 27.50 | 1.08 | 1.08 | 1.09 |
| 14.3 | 1.85 | 4.80 | 2.94 | 0.03 | 27.58 | 1.08 | 1.08 | 1.09 |
| 14.5 | 1.81 | 4.90 | 3.09 | 0.05 | 27.66 | 1.08 | 1.08 | 1.09 |
| 14.8 | 1.76 | 4.99 | 3.23 | 0.07 | 27.75 | 1.08 | 1.08 | 1.09 |
| 15.0 | 1.71 | 5.09 | 3.37 | 0.08 | 27.82 | 1.08 | 1.08 | 1.09 |
| 15.5 | 1.63 | 5.28 | 3.65 | 0.14 | 28.01 | 1.08 | 1.08 | 1.09 |
| 16.0 | 1.56 | 5.47 | 3.91 | 0.15 | 28.19 | 1.08 | 1.08 | 1.09 |
| 16.5 | 1.48 | 5.65 | 4.17 | 0.17 | 28.37 | 1.08 | 1.08 | 1.09 |
| 17.0 | 1.42 | 5.83 | 4.41 | 0.19 | 28.58 | 1.08 | 1.08 | 1.09 |
| 17.5 | 1.36 | 6.01 | 4.65 | 0.23 | 28.76 | 1.08 | 1.08 | 1.09 |
| 18.0 | 1.29 | 6.18 | 4.89 | 0.25 | 28.95 | 1.08 | 1.08 | 1.09 |
| 18.5 | 1.24 | 6.35 | 5.11 | 0.29 | 29.17 | 1.08 | 1.08 | 1.09 |
| 19.0 | 1.19 | 6.52 | 5.33 | 0.31 | 29.34 | 1.08 | 1.08 | 1.09 |
| 19.5 | 1.14 | 6.69 | 5.54 | 0.34 | 29.54 | 1.08 | 1.08 | 1.09 |
| 20.0 | 1.10 | 6.85 | 5.75 | 0.36 | 29.73 | 1.08 | 1.08 | 1.09 |

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss



2 Way-90° Power Splitter/Combiner

SCPQ-10.5+

Typical Performance Data

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

| FREQ. (MHz) | TOTAL LOSS ¹ (dB) | | AMP. UNBAL. (dB) | PHASE UNBAL. From 90° (deg.) | ISOLATION (dB) 1-2 | VSWR (:1) | | |
|----------------|---------------------------------|------|------------------------|------------------------------------|--------------------------|--------------|------|------|
| | S-1 | S-2 | | | | S | 1 | 2 |
| 5.0 | 7.02 | 1.03 | 5.99 | 0.32 | 28.27 | 1.06 | 1.06 | 1.06 |
| 5.5 | 6.38 | 1.21 | 5.17 | 0.35 | 27.81 | 1.06 | 1.07 | 1.06 |
| 6.0 | 5.82 | 1.40 | 4.43 | 0.33 | 27.44 | 1.06 | 1.07 | 1.07 |
| 6.5 | 5.33 | 1.59 | 3.74 | 0.31 | 27.13 | 1.06 | 1.07 | 1.07 |
| 7.0 | 4.89 | 1.79 | 3.10 | 0.31 | 26.94 | 1.07 | 1.07 | 1.07 |
| 7.3 | 4.69 | 1.89 | 2.80 | 0.31 | 26.84 | 1.07 | 1.07 | 1.07 |
| 7.5 | 4.51 | 1.99 | 2.52 | 0.32 | 26.76 | 1.07 | 1.07 | 1.07 |
| 7.8 | 4.33 | 2.10 | 2.23 | 0.30 | 26.70 | 1.07 | 1.07 | 1.07 |
| 8.0 | 4.16 | 2.20 | 1.96 | 0.29 | 26.65 | 1.07 | 1.07 | 1.08 |
| 8.3 | 4.01 | 2.30 | 1.70 | 0.29 | 26.62 | 1.07 | 1.08 | 1.08 |
| 8.5 | 3.85 | 2.41 | 1.44 | 0.29 | 26.59 | 1.07 | 1.08 | 1.08 |
| 8.8 | 3.71 | 2.52 | 1.19 | 0.27 | 26.57 | 1.07 | 1.08 | 1.08 |
| 9.0 | 3.58 | 2.62 | 0.95 | 0.25 | 26.55 | 1.07 | 1.08 | 1.08 |
| 9.3 | 3.45 | 2.73 | 0.72 | 0.25 | 26.55 | 1.07 | 1.08 | 1.08 |
| 9.5 | 3.33 | 2.84 | 0.49 | 0.26 | 26.55 | 1.07 | 1.08 | 1.08 |
| 9.8 | 3.21 | 2.94 | 0.26 | 0.24 | 26.56 | 1.07 | 1.08 | 1.08 |
| 10.0 | 3.10 | 3.05 | 0.05 | 0.24 | 26.58 | 1.07 | 1.08 | 1.08 |
| 10.3 | 3.00 | 3.15 | 0.15 | 0.25 | 26.59 | 1.07 | 1.08 | 1.08 |
| 10.5 | 2.90 | 3.26 | 0.36 | 0.21 | 26.62 | 1.07 | 1.08 | 1.08 |
| 10.8 | 2.80 | 3.36 | 0.56 | 0.20 | 26.65 | 1.07 | 1.08 | 1.08 |
| 11.0 | 2.71 | 3.47 | 0.76 | 0.19 | 26.70 | 1.07 | 1.08 | 1.08 |
| 11.3 | 2.62 | 3.57 | 0.95 | 0.20 | 26.73 | 1.07 | 1.08 | 1.08 |
| 11.5 | 2.55 | 3.68 | 1.13 | 0.18 | 26.80 | 1.07 | 1.08 | 1.08 |
| 11.8 | 2.46 | 3.78 | 1.32 | 0.16 | 26.84 | 1.07 | 1.08 | 1.08 |
| 12.0 | 2.39 | 3.89 | 1.49 | 0.16 | 26.89 | 1.07 | 1.08 | 1.08 |
| 12.3 | 2.32 | 3.99 | 1.67 | 0.15 | 26.96 | 1.07 | 1.07 | 1.08 |
| 12.5 | 2.25 | 4.09 | 1.84 | 0.14 | 27.00 | 1.07 | 1.07 | 1.08 |
| 12.8 | 2.18 | 4.19 | 2.01 | 0.13 | 27.07 | 1.07 | 1.07 | 1.09 |
| 13.0 | 2.13 | 4.30 | 2.17 | 0.10 | 27.15 | 1.07 | 1.07 | 1.09 |
| 13.3 | 2.06 | 4.40 | 2.34 | 0.12 | 27.24 | 1.07 | 1.07 | 1.09 |
| 13.5 | 2.00 | 4.50 | 2.49 | 0.11 | 27.30 | 1.07 | 1.07 | 1.09 |
| 13.8 | 1.95 | 4.59 | 2.65 | 0.09 | 27.38 | 1.07 | 1.07 | 1.09 |
| 14.0 | 1.89 | 4.69 | 2.80 | 0.09 | 27.46 | 1.07 | 1.07 | 1.09 |
| 14.3 | 1.85 | 4.80 | 2.95 | 0.09 | 27.54 | 1.07 | 1.07 | 1.09 |
| 14.5 | 1.80 | 4.89 | 3.09 | 0.06 | 27.63 | 1.07 | 1.07 | 1.09 |
| 14.8 | 1.75 | 4.99 | 3.24 | 0.05 | 27.72 | 1.07 | 1.07 | 1.09 |
| 15.0 | 1.71 | 5.08 | 3.37 | 0.05 | 27.79 | 1.07 | 1.07 | 1.09 |
| 15.5 | 1.62 | 5.27 | 3.65 | 0.02 | 27.98 | 1.07 | 1.07 | 1.09 |
| 16.0 | 1.55 | 5.46 | 3.91 | 0.01 | 28.16 | 1.07 | 1.07 | 1.09 |
| 16.5 | 1.47 | 5.64 | 4.17 | 0.03 | 28.35 | 1.07 | 1.07 | 1.09 |
| 17.0 | 1.41 | 5.83 | 4.42 | 0.03 | 28.56 | 1.07 | 1.07 | 1.09 |
| 17.5 | 1.35 | 6.00 | 4.66 | 0.08 | 28.75 | 1.07 | 1.07 | 1.09 |
| 18.0 | 1.28 | 6.18 | 4.89 | 0.09 | 28.94 | 1.07 | 1.07 | 1.09 |
| 18.5 | 1.23 | 6.35 | 5.12 | 0.12 | 29.16 | 1.07 | 1.07 | 1.09 |
| 19.0 | 1.18 | 6.51 | 5.33 | 0.16 | 29.36 | 1.07 | 1.06 | 1.09 |
| 19.5 | 1.13 | 6.68 | 5.55 | 0.18 | 29.56 | 1.07 | 1.06 | 1.09 |
| 20.0 | 1.09 | 6.84 | 5.75 | 0.21 | 29.76 | 1.07 | 1.06 | 1.09 |

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss



2 Way-90° Power Splitter/Combiner

SCPQ-10.5+

Typical Performance Data

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

| FREQ. (MHz) | TOTAL LOSS ¹ (dB) | | AMP. UNBAL. (dB) | PHASE UNBAL. From 90° (deg.) | ISOLATION (dB) 1-2 | VSWR (:1) | | |
|----------------|---------------------------------|------|------------------------|------------------------------------|--------------------------|--------------|------|------|
| | S-1 | S-2 | | | | S | 1 | 2 |
| 5.0 | 7.03 | 1.01 | 6.02 | 0.11 | 28.57 | 1.05 | 1.05 | 1.05 |
| 5.5 | 6.39 | 1.19 | 5.19 | 0.12 | 28.10 | 1.05 | 1.06 | 1.06 |
| 6.0 | 5.83 | 1.39 | 4.45 | 0.12 | 27.71 | 1.06 | 1.06 | 1.06 |
| 6.5 | 5.35 | 1.58 | 3.77 | 0.10 | 27.39 | 1.06 | 1.06 | 1.06 |
| 7.0 | 4.91 | 1.78 | 3.13 | 0.10 | 27.20 | 1.06 | 1.07 | 1.07 |
| 7.3 | 4.71 | 1.88 | 2.83 | 0.08 | 27.09 | 1.07 | 1.07 | 1.07 |
| 7.5 | 4.53 | 1.99 | 2.54 | 0.09 | 27.02 | 1.07 | 1.07 | 1.07 |
| 7.8 | 4.35 | 2.09 | 2.26 | 0.07 | 26.96 | 1.07 | 1.07 | 1.07 |
| 8.0 | 4.18 | 2.19 | 1.99 | 0.05 | 26.90 | 1.07 | 1.07 | 1.07 |
| 8.3 | 4.02 | 2.30 | 1.72 | 0.06 | 26.86 | 1.07 | 1.07 | 1.07 |
| 8.5 | 3.87 | 2.40 | 1.47 | 0.05 | 26.83 | 1.07 | 1.07 | 1.07 |
| 8.8 | 3.73 | 2.51 | 1.22 | 0.02 | 26.82 | 1.07 | 1.07 | 1.07 |
| 9.0 | 3.60 | 2.62 | 0.98 | 0.01 | 26.79 | 1.07 | 1.07 | 1.07 |
| 9.3 | 3.47 | 2.72 | 0.74 | 0.01 | 26.79 | 1.07 | 1.07 | 1.07 |
| 9.5 | 3.35 | 2.83 | 0.52 | 0.00 | 26.79 | 1.07 | 1.08 | 1.08 |
| 9.8 | 3.23 | 2.94 | 0.29 | 0.02 | 26.79 | 1.07 | 1.08 | 1.08 |
| 10.0 | 3.12 | 3.04 | 0.08 | 0.01 | 26.81 | 1.07 | 1.08 | 1.08 |
| 10.3 | 3.02 | 3.15 | 0.13 | 0.01 | 26.82 | 1.07 | 1.08 | 1.08 |
| 10.5 | 2.92 | 3.25 | 0.34 | 0.07 | 26.84 | 1.07 | 1.08 | 1.08 |
| 10.8 | 2.82 | 3.36 | 0.54 | 0.08 | 26.88 | 1.08 | 1.08 | 1.08 |
| 11.0 | 2.74 | 3.46 | 0.72 | 0.08 | 26.92 | 1.08 | 1.08 | 1.08 |
| 11.3 | 2.65 | 3.57 | 0.93 | 0.10 | 26.94 | 1.08 | 1.08 | 1.08 |
| 11.5 | 2.57 | 3.68 | 1.11 | 0.10 | 27.01 | 1.08 | 1.08 | 1.08 |
| 11.8 | 2.49 | 3.78 | 1.29 | 0.12 | 27.05 | 1.08 | 1.08 | 1.08 |
| 12.0 | 2.41 | 3.88 | 1.47 | 0.14 | 27.11 | 1.08 | 1.08 | 1.08 |
| 12.3 | 2.34 | 3.99 | 1.65 | 0.15 | 27.16 | 1.08 | 1.08 | 1.08 |
| 12.5 | 2.28 | 4.09 | 1.81 | 0.15 | 27.22 | 1.08 | 1.08 | 1.08 |
| 12.8 | 2.21 | 4.19 | 1.97 | 0.16 | 27.28 | 1.08 | 1.08 | 1.08 |
| 13.0 | 2.15 | 4.29 | 2.15 | 0.20 | 27.36 | 1.08 | 1.08 | 1.08 |
| 13.3 | 2.09 | 4.40 | 2.31 | 0.19 | 27.43 | 1.08 | 1.08 | 1.08 |
| 13.5 | 2.03 | 4.49 | 2.46 | 0.21 | 27.50 | 1.08 | 1.08 | 1.08 |
| 13.8 | 1.98 | 4.59 | 2.61 | 0.21 | 27.57 | 1.08 | 1.08 | 1.08 |
| 14.0 | 1.92 | 4.69 | 2.77 | 0.25 | 27.65 | 1.08 | 1.08 | 1.08 |
| 14.3 | 1.87 | 4.79 | 2.91 | 0.24 | 27.73 | 1.08 | 1.08 | 1.08 |
| 14.5 | 1.82 | 4.89 | 3.07 | 0.26 | 27.80 | 1.08 | 1.08 | 1.08 |
| 14.8 | 1.78 | 4.98 | 3.20 | 0.29 | 27.90 | 1.08 | 1.09 | 1.08 |
| 15.0 | 1.73 | 5.08 | 3.35 | 0.29 | 27.96 | 1.08 | 1.09 | 1.08 |
| 15.5 | 1.65 | 5.27 | 3.62 | 0.36 | 28.14 | 1.08 | 1.09 | 1.09 |
| 16.0 | 1.57 | 5.46 | 3.89 | 0.36 | 28.31 | 1.08 | 1.09 | 1.09 |
| 16.5 | 1.50 | 5.64 | 4.14 | 0.38 | 28.50 | 1.08 | 1.09 | 1.09 |
| 17.0 | 1.43 | 5.82 | 4.39 | 0.41 | 28.69 | 1.08 | 1.09 | 1.09 |
| 17.5 | 1.37 | 6.00 | 4.63 | 0.46 | 28.88 | 1.08 | 1.09 | 1.09 |
| 18.0 | 1.31 | 6.17 | 4.86 | 0.48 | 29.05 | 1.08 | 1.09 | 1.09 |
| 18.5 | 1.26 | 6.34 | 5.08 | 0.53 | 29.25 | 1.08 | 1.09 | 1.09 |
| 19.0 | 1.21 | 6.51 | 5.30 | 0.56 | 29.43 | 1.08 | 1.09 | 1.09 |
| 19.5 | 1.16 | 6.68 | 5.52 | 0.58 | 29.62 | 1.08 | 1.09 | 1.09 |
| 20.0 | 1.12 | 6.84 | 5.72 | 0.62 | 29.81 | 1.08 | 1.09 | 1.09 |

¹ Total Loss = Insertion Loss+ 3dB Splitter Loss

