

Solid State USB SPDT Switch

USB-1SP2T-34

Typical Performance Data

TEST CONDITIONS: @Temperature = 0°C, Pin = 8dBm

| Frequency (MHz) | Insertion Loss (dB) | | VSWR, Active Ports (:1) | | | VSWR, Internally Terminated Ports (:1) | |
|--------------------|------------------------|-------|-------------------------------|------|------|--|------|
| | COM-1 | COM-2 | J1 | J2 | COM | J1 | J2 |
| 100 | 0.72 | 0.72 | 1.09 | 1.09 | 1.09 | 1.10 | 1.10 |
| 500 | 0.87 | 0.86 | 1.08 | 1.08 | 1.09 | 1.11 | 1.11 |
| 1000 | 0.96 | 0.96 | 1.06 | 1.06 | 1.10 | 1.14 | 1.14 |
| 1500 | 1.02 | 1.02 | 1.03 | 1.03 | 1.08 | 1.16 | 1.16 |
| 2000 | 1.08 | 1.07 | 1.05 | 1.05 | 1.06 | 1.17 | 1.17 |
| 2500 | 1.12 | 1.12 | 1.10 | 1.10 | 1.06 | 1.15 | 1.15 |
| 3000 | 1.18 | 1.18 | 1.13 | 1.13 | 1.07 | 1.13 | 1.13 |
| 3500 | 1.22 | 1.22 | 1.13 | 1.13 | 1.08 | 1.11 | 1.11 |
| 4000 | 1.27 | 1.27 | 1.12 | 1.12 | 1.10 | 1.11 | 1.12 |
| 4500 | 1.32 | 1.33 | 1.12 | 1.12 | 1.14 | 1.12 | 1.13 |
| 5000 | 1.38 | 1.39 | 1.13 | 1.14 | 1.17 | 1.13 | 1.13 |
| 5500 | 1.44 | 1.45 | 1.13 | 1.14 | 1.18 | 1.12 | 1.13 |
| 6000 | 1.49 | 1.50 | 1.12 | 1.13 | 1.15 | 1.09 | 1.10 |
| 6500 | 1.53 | 1.55 | 1.08 | 1.10 | 1.10 | 1.07 | 1.07 |
| 7000 | 1.58 | 1.59 | 1.05 | 1.07 | 1.05 | 1.06 | 1.05 |
| 7500 | 1.63 | 1.65 | 1.03 | 1.05 | 1.03 | 1.09 | 1.07 |
| 8000 | 1.69 | 1.71 | 1.03 | 1.04 | 1.04 | 1.13 | 1.10 |
| 8500 | 1.76 | 1.77 | 1.08 | 1.06 | 1.06 | 1.17 | 1.14 |
| 9000 | 1.84 | 1.85 | 1.13 | 1.11 | 1.09 | 1.19 | 1.17 |
| 9750 | 1.97 | 1.98 | 1.22 | 1.19 | 1.15 | 1.21 | 1.19 |
| 10500 | 2.10 | 2.11 | 1.26 | 1.24 | 1.21 | 1.19 | 1.18 |
| 11250 | 2.21 | 2.24 | 1.22 | 1.21 | 1.23 | 1.13 | 1.13 |
| 12000 | 2.34 | 2.37 | 1.13 | 1.15 | 1.25 | 1.05 | 1.07 |
| 12750 | 2.48 | 2.51 | 1.05 | 1.06 | 1.29 | 1.07 | 1.06 |
| 13500 | 2.64 | 2.66 | 1.19 | 1.14 | 1.33 | 1.20 | 1.16 |
| 14250 | 2.76 | 2.77 | 1.26 | 1.20 | 1.31 | 1.31 | 1.24 |
| 15000 | 2.84 | 2.86 | 1.22 | 1.16 | 1.14 | 1.34 | 1.27 |
| 15750 | 2.97 | 2.99 | 1.26 | 1.21 | 1.06 | 1.30 | 1.24 |
| 16500 | 3.09 | 3.10 | 1.38 | 1.34 | 1.21 | 1.20 | 1.16 |
| 17250 | 3.11 | 3.12 | 1.37 | 1.33 | 1.25 | 1.12 | 1.09 |
| 18000 | 3.08 | 3.10 | 1.18 | 1.18 | 1.12 | 1.16 | 1.12 |
| 18750 | 3.16 | 3.17 | 1.08 | 1.12 | 1.09 | 1.17 | 1.12 |
| 19500 | 3.27 | 3.28 | 1.15 | 1.17 | 1.14 | 1.10 | 1.05 |
| 20250 | 3.31 | 3.32 | 1.07 | 1.08 | 1.06 | 1.09 | 1.10 |
| 21000 | 3.36 | 3.37 | 1.09 | 1.13 | 1.12 | 1.23 | 1.26 |
| 21500 | 3.42 | 3.43 | 1.17 | 1.20 | 1.19 | 1.30 | 1.33 |
| 22000 | 3.49 | 3.50 | 1.21 | 1.23 | 1.23 | 1.35 | 1.37 |
| 22500 | 3.53 | 3.54 | 1.19 | 1.20 | 1.20 | 1.33 | 1.33 |
| 23000 | 3.56 | 3.57 | 1.15 | 1.17 | 1.16 | 1.25 | 1.24 |
| 23500 | 3.60 | 3.61 | 1.14 | 1.18 | 1.15 | 1.13 | 1.11 |
| 24000 | 3.64 | 3.64 | 1.12 | 1.18 | 1.14 | 1.06 | 1.03 |
| 24500 | 3.68 | 3.68 | 1.09 | 1.17 | 1.10 | 1.12 | 1.16 |
| 25000 | 3.74 | 3.74 | 1.10 | 1.19 | 1.02 | 1.23 | 1.31 |
| 25500 | 3.79 | 3.79 | 1.17 | 1.25 | 1.08 | 1.33 | 1.42 |
| 26000 | 3.83 | 3.84 | 1.23 | 1.31 | 1.16 | 1.37 | 1.46 |
| 26500 | 3.86 | 3.86 | 1.28 | 1.33 | 1.19 | 1.40 | 1.46 |
| 27000 | 3.91 | 3.90 | 1.32 | 1.30 | 1.17 | 1.43 | 1.43 |
| 27500 | 4.01 | 3.97 | 1.31 | 1.23 | 1.17 | 1.43 | 1.35 |
| 28000 | 4.14 | 4.09 | 1.30 | 1.22 | 1.24 | 1.42 | 1.31 |
| 28500 | 4.28 | 4.25 | 1.31 | 1.30 | 1.36 | 1.43 | 1.34 |
| 29000 | 4.38 | 4.40 | 1.32 | 1.41 | 1.47 | 1.45 | 1.44 |
| 29500 | 4.44 | 4.48 | 1.34 | 1.48 | 1.54 | 1.48 | 1.56 |
| 30000 | 4.45 | 4.49 | 1.37 | 1.51 | 1.58 | 1.57 | 1.70 |

Notes

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Solid State USB SPDT Switch

USB-1SP2T-34

Typical Performance Data

TEST CONDITIONS: @Temperature = 0°C, Pin = 8dBm

| Frequency (MHz) | Isolation @ Active states (dB) | | | Isolation @ Disconnected state (dB) | | |
|--------------------|--------------------------------------|-------|-------|---|-------|--------|
| | COM-1 | COM-2 | J1-J2 | COM-1 | COM-2 | J1-J2 |
| 100 | 89.58 | 87.90 | 93.63 | 85.41 | 82.18 | 100.66 |
| 500 | 77.32 | 78.63 | 85.32 | 75.10 | 74.73 | 94.33 |
| 1000 | 71.41 | 71.02 | 77.45 | 68.72 | 68.68 | 88.71 |
| 1500 | 68.05 | 68.13 | 74.07 | 65.25 | 65.38 | 84.15 |
| 2000 | 66.05 | 66.28 | 71.74 | 63.49 | 63.49 | 82.96 |
| 2500 | 64.86 | 64.77 | 70.08 | 62.41 | 62.54 | 80.53 |
| 3000 | 63.78 | 64.08 | 69.89 | 61.74 | 61.73 | 80.32 |
| 3500 | 63.21 | 63.24 | 69.33 | 61.31 | 61.64 | 77.02 |
| 4000 | 62.53 | 62.72 | 69.79 | 61.24 | 61.28 | 76.61 |
| 4500 | 61.98 | 62.01 | 70.70 | 61.10 | 61.14 | 76.90 |
| 5000 | 61.31 | 61.38 | 66.94 | 61.10 | 61.13 | 78.45 |
| 5500 | 60.87 | 60.84 | 65.68 | 60.78 | 60.86 | 77.37 |
| 6000 | 60.59 | 60.63 | 65.31 | 60.72 | 60.87 | 78.22 |
| 6500 | 60.85 | 60.65 | 65.54 | 60.70 | 61.03 | 76.53 |
| 7000 | 61.34 | 61.42 | 65.69 | 60.75 | 61.00 | 75.51 |
| 7500 | 62.63 | 62.64 | 65.79 | 61.10 | 61.21 | 74.06 |
| 8000 | 63.84 | 64.14 | 66.11 | 61.06 | 61.50 | 73.36 |
| 8500 | 65.23 | 65.74 | 66.07 | 61.39 | 61.99 | 73.11 |
| 9000 | 66.19 | 67.28 | 66.24 | 61.56 | 62.48 | 73.27 |
| 9750 | 66.95 | 68.57 | 65.76 | 62.35 | 63.69 | 73.39 |
| 10500 | 67.46 | 68.37 | 65.42 | 63.34 | 65.16 | 73.77 |
| 11250 | 67.79 | 68.96 | 64.80 | 64.64 | 66.73 | 74.39 |
| 12000 | 69.47 | 70.53 | 64.08 | 66.77 | 69.48 | 75.03 |
| 12750 | 73.78 | 74.90 | 63.10 | 69.80 | 72.45 | 74.32 |
| 13500 | 78.29 | 77.10 | 62.30 | 72.22 | 77.33 | 74.36 |
| 14250 | 79.05 | 82.49 | 61.21 | 72.40 | 74.80 | 70.99 |
| 15000 | 77.18 | 75.45 | 60.69 | 69.73 | 69.94 | 70.14 |
| 15750 | 73.10 | 74.83 | 59.61 | 65.65 | 67.67 | 72.81 |
| 16500 | 69.11 | 68.40 | 58.34 | 64.57 | 64.39 | 70.43 |
| 17250 | 66.44 | 66.33 | 57.30 | 62.23 | 62.31 | 68.88 |
| 18000 | 64.04 | 64.07 | 56.68 | 59.98 | 59.87 | 68.84 |
| 18750 | 63.06 | 62.64 | 56.05 | 58.48 | 58.31 | 67.86 |
| 19500 | 62.68 | 62.44 | 55.48 | 57.09 | 57.02 | 67.20 |
| 20250 | 61.69 | 62.13 | 55.19 | 55.96 | 55.86 | 67.81 |
| 21000 | 60.07 | 60.72 | 54.85 | 55.37 | 55.11 | 67.38 |
| 21500 | 58.99 | 59.50 | 54.92 | 55.00 | 54.79 | 67.91 |
| 22000 | 58.63 | 58.95 | 54.97 | 54.48 | 54.18 | 68.82 |
| 22500 | 58.72 | 58.99 | 54.89 | 54.01 | 53.69 | 68.85 |
| 23000 | 58.85 | 59.18 | 54.65 | 53.57 | 53.13 | 67.43 |
| 23500 | 58.63 | 59.46 | 54.35 | 53.12 | 52.70 | 66.46 |
| 24000 | 57.95 | 59.08 | 54.15 | 52.63 | 52.28 | 66.29 |
| 24500 | 57.41 | 58.56 | 53.91 | 52.19 | 51.82 | 65.91 |
| 25000 | 57.34 | 58.49 | 53.70 | 51.84 | 51.52 | 65.24 |
| 25500 | 57.46 | 58.65 | 53.57 | 51.60 | 51.22 | 64.85 |
| 26000 | 57.54 | 58.71 | 53.41 | 51.50 | 51.09 | 64.57 |
| 26500 | 57.45 | 57.98 | 53.40 | 51.54 | 51.20 | 64.24 |
| 27000 | 57.10 | 57.15 | 53.53 | 51.84 | 51.48 | 64.29 |
| 27500 | 56.62 | 56.86 | 53.69 | 52.12 | 51.68 | 64.09 |
| 28000 | 56.56 | 57.30 | 54.16 | 52.63 | 52.13 | 64.71 |
| 28500 | 57.28 | 58.19 | 54.61 | 53.32 | 52.76 | 64.94 |
| 29000 | 58.49 | 58.98 | 54.96 | 53.87 | 53.46 | 65.94 |
| 29500 | 59.94 | 59.36 | 55.48 | 54.40 | 54.32 | 67.26 |
| 30000 | 60.19 | 59.14 | 55.89 | 55.13 | 55.07 | 68.09 |

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Solid State USB SPDT Switch

USB-1SP2T-34

Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Pin = 8dBm

| Frequency (MHz) | Insertion Loss (dB) | | VSWR, Active Ports (:1) | | | VSWR, Internally Terminated Ports (:1) | |
|--------------------|------------------------|-------|-------------------------------|------|------|--|------|
| | COM-1 | COM-2 | J1 | J2 | COM | J1 | J2 |
| 100 | 0.76 | 0.76 | 1.10 | 1.10 | 1.10 | 1.09 | 1.09 |
| 500 | 0.92 | 0.91 | 1.09 | 1.09 | 1.10 | 1.10 | 1.10 |
| 1000 | 1.01 | 1.01 | 1.07 | 1.07 | 1.10 | 1.14 | 1.13 |
| 1500 | 1.07 | 1.07 | 1.04 | 1.04 | 1.09 | 1.16 | 1.16 |
| 2000 | 1.14 | 1.14 | 1.05 | 1.05 | 1.07 | 1.16 | 1.16 |
| 2500 | 1.19 | 1.19 | 1.10 | 1.10 | 1.07 | 1.15 | 1.15 |
| 3000 | 1.25 | 1.25 | 1.13 | 1.13 | 1.08 | 1.13 | 1.13 |
| 3500 | 1.29 | 1.29 | 1.14 | 1.14 | 1.08 | 1.11 | 1.11 |
| 4000 | 1.35 | 1.35 | 1.14 | 1.14 | 1.11 | 1.11 | 1.11 |
| 4500 | 1.40 | 1.41 | 1.14 | 1.14 | 1.13 | 1.11 | 1.12 |
| 5000 | 1.45 | 1.46 | 1.14 | 1.15 | 1.16 | 1.11 | 1.12 |
| 5500 | 1.50 | 1.51 | 1.14 | 1.15 | 1.16 | 1.11 | 1.12 |
| 6000 | 1.59 | 1.60 | 1.13 | 1.15 | 1.14 | 1.10 | 1.11 |
| 6500 | 1.61 | 1.62 | 1.11 | 1.13 | 1.11 | 1.07 | 1.08 |
| 7000 | 1.66 | 1.67 | 1.07 | 1.09 | 1.07 | 1.05 | 1.04 |
| 7500 | 1.73 | 1.74 | 1.03 | 1.06 | 1.05 | 1.09 | 1.07 |
| 8000 | 1.79 | 1.80 | 1.05 | 1.05 | 1.05 | 1.13 | 1.10 |
| 8500 | 1.86 | 1.88 | 1.08 | 1.07 | 1.07 | 1.15 | 1.13 |
| 9000 | 1.96 | 1.97 | 1.13 | 1.11 | 1.09 | 1.19 | 1.16 |
| 9750 | 2.12 | 2.13 | 1.23 | 1.20 | 1.14 | 1.22 | 1.20 |
| 10500 | 2.25 | 2.26 | 1.26 | 1.24 | 1.18 | 1.19 | 1.18 |
| 11250 | 2.42 | 2.44 | 1.22 | 1.22 | 1.21 | 1.14 | 1.14 |
| 12000 | 2.56 | 2.59 | 1.11 | 1.13 | 1.24 | 1.05 | 1.07 |
| 12750 | 2.72 | 2.74 | 1.03 | 1.03 | 1.30 | 1.06 | 1.03 |
| 13500 | 2.92 | 2.93 | 1.14 | 1.10 | 1.33 | 1.17 | 1.12 |
| 14250 | 3.01 | 2.99 | 1.23 | 1.17 | 1.28 | 1.28 | 1.22 |
| 15000 | 3.07 | 3.06 | 1.23 | 1.17 | 1.17 | 1.32 | 1.26 |
| 15750 | 3.11 | 3.11 | 1.22 | 1.18 | 1.04 | 1.25 | 1.21 |
| 16500 | 3.21 | 3.19 | 1.30 | 1.27 | 1.21 | 1.17 | 1.14 |
| 17250 | 3.23 | 3.21 | 1.32 | 1.30 | 1.23 | 1.11 | 1.09 |
| 18000 | 3.25 | 3.24 | 1.14 | 1.13 | 1.12 | 1.14 | 1.12 |
| 18750 | 3.29 | 3.29 | 1.09 | 1.13 | 1.14 | 1.12 | 1.09 |
| 19500 | 3.37 | 3.36 | 1.10 | 1.13 | 1.16 | 1.10 | 1.06 |
| 20250 | 3.38 | 3.36 | 1.04 | 1.05 | 1.05 | 1.10 | 1.09 |
| 21000 | 3.43 | 3.41 | 1.08 | 1.11 | 1.13 | 1.19 | 1.22 |
| 21500 | 3.52 | 3.51 | 1.15 | 1.18 | 1.22 | 1.26 | 1.29 |
| 22000 | 3.48 | 3.47 | 1.18 | 1.20 | 1.24 | 1.30 | 1.33 |
| 22500 | 3.62 | 3.61 | 1.16 | 1.18 | 1.22 | 1.29 | 1.30 |
| 23000 | 3.62 | 3.60 | 1.11 | 1.13 | 1.16 | 1.21 | 1.21 |
| 23500 | 3.65 | 3.63 | 1.08 | 1.12 | 1.12 | 1.13 | 1.09 |
| 24000 | 3.72 | 3.71 | 1.06 | 1.13 | 1.11 | 1.09 | 1.04 |
| 24500 | 3.76 | 3.75 | 1.05 | 1.14 | 1.05 | 1.12 | 1.13 |
| 25000 | 3.82 | 3.81 | 1.10 | 1.20 | 1.03 | 1.20 | 1.27 |
| 25500 | 3.90 | 3.90 | 1.18 | 1.28 | 1.10 | 1.31 | 1.41 |
| 26000 | 3.91 | 3.91 | 1.26 | 1.35 | 1.17 | 1.39 | 1.49 |
| 26500 | 3.93 | 3.92 | 1.28 | 1.34 | 1.19 | 1.40 | 1.48 |
| 27000 | 4.06 | 4.03 | 1.29 | 1.28 | 1.16 | 1.40 | 1.41 |
| 27500 | 4.12 | 4.07 | 1.30 | 1.21 | 1.16 | 1.41 | 1.33 |
| 28000 | 4.23 | 4.18 | 1.30 | 1.22 | 1.20 | 1.41 | 1.29 |
| 28500 | 4.40 | 4.37 | 1.31 | 1.31 | 1.34 | 1.43 | 1.34 |
| 29000 | 4.54 | 4.55 | 1.31 | 1.41 | 1.49 | 1.45 | 1.43 |
| 29500 | 4.66 | 4.69 | 1.32 | 1.48 | 1.54 | 1.45 | 1.53 |
| 30000 | 4.77 | 4.80 | 1.39 | 1.54 | 1.56 | 1.54 | 1.69 |

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Solid State USB SPDT Switch

USB-1SP2T-34

Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Pin = 8dBm

| Frequency (MHz) | Isolation @ Active states (dB) | | | Isolation @ Disconnected state (dB) | | |
|--------------------|--------------------------------------|-------|-------|---|-------|--------|
| | COM-1 | COM-2 | J1-J2 | COM-1 | COM-2 | J1-J2 |
| 100 | 86.58 | 86.29 | 91.97 | 82.82 | 83.62 | 106.71 |
| 500 | 77.44 | 77.76 | 84.19 | 75.28 | 75.09 | 99.01 |
| 1000 | 70.96 | 71.13 | 76.19 | 68.31 | 68.15 | 86.90 |
| 1500 | 67.37 | 67.68 | 72.79 | 64.62 | 64.79 | 83.41 |
| 2000 | 65.52 | 65.80 | 71.12 | 62.62 | 62.84 | 82.13 |
| 2500 | 64.20 | 64.62 | 69.77 | 61.64 | 61.55 | 81.01 |
| 3000 | 63.27 | 63.58 | 69.34 | 61.03 | 60.81 | 79.19 |
| 3500 | 62.61 | 63.01 | 69.44 | 60.63 | 60.45 | 78.16 |
| 4000 | 62.11 | 62.20 | 68.58 | 60.31 | 60.38 | 76.76 |
| 4500 | 61.52 | 61.58 | 68.14 | 60.19 | 60.25 | 77.43 |
| 5000 | 60.97 | 61.03 | 66.57 | 59.92 | 60.15 | 77.87 |
| 5500 | 60.47 | 60.51 | 65.68 | 59.89 | 60.12 | 79.67 |
| 6000 | 60.16 | 60.17 | 65.37 | 59.83 | 60.00 | 78.86 |
| 6500 | 60.46 | 60.50 | 65.52 | 59.76 | 59.97 | 78.44 |
| 7000 | 60.99 | 61.00 | 65.86 | 59.97 | 60.24 | 76.62 |
| 7500 | 61.95 | 62.07 | 66.23 | 60.09 | 60.34 | 75.92 |
| 8000 | 63.12 | 63.47 | 66.26 | 60.25 | 60.41 | 74.80 |
| 8500 | 64.06 | 64.80 | 66.69 | 60.32 | 60.97 | 74.02 |
| 9000 | 64.71 | 65.63 | 66.66 | 60.71 | 61.53 | 74.33 |
| 9750 | 65.50 | 67.08 | 66.70 | 61.22 | 62.34 | 74.60 |
| 10500 | 66.04 | 67.29 | 65.97 | 62.04 | 63.54 | 75.14 |
| 11250 | 66.44 | 67.78 | 65.50 | 63.12 | 64.99 | 75.53 |
| 12000 | 67.67 | 69.14 | 64.77 | 64.93 | 66.93 | 75.67 |
| 12750 | 70.72 | 72.20 | 63.66 | 67.34 | 69.15 | 75.89 |
| 13500 | 72.46 | 74.90 | 63.05 | 70.20 | 72.52 | 75.52 |
| 14250 | 72.52 | 82.48 | 61.96 | 74.20 | 71.67 | 72.56 |
| 15000 | 77.31 | 80.09 | 61.09 | 74.69 | 70.52 | 72.09 |
| 15750 | 77.42 | 76.58 | 60.04 | 69.23 | 70.91 | 73.83 |
| 16500 | 71.61 | 70.97 | 58.70 | 67.11 | 66.45 | 71.44 |
| 17250 | 68.47 | 67.51 | 57.81 | 64.45 | 63.50 | 69.63 |
| 18000 | 65.66 | 64.83 | 57.28 | 61.80 | 61.30 | 69.46 |
| 18750 | 63.77 | 63.32 | 56.51 | 59.68 | 59.38 | 68.35 |
| 19500 | 63.16 | 63.30 | 55.99 | 58.17 | 58.17 | 68.05 |
| 20250 | 62.38 | 63.02 | 55.67 | 56.89 | 56.76 | 68.47 |
| 21000 | 60.70 | 61.53 | 55.30 | 56.32 | 55.97 | 67.93 |
| 21500 | 59.58 | 60.15 | 55.48 | 55.81 | 55.44 | 68.84 |
| 22000 | 59.03 | 59.52 | 55.42 | 55.19 | 54.85 | 69.40 |
| 22500 | 59.15 | 59.64 | 55.32 | 54.66 | 54.32 | 68.94 |
| 23000 | 59.24 | 59.88 | 55.03 | 54.17 | 53.75 | 68.01 |
| 23500 | 59.06 | 59.83 | 54.69 | 53.71 | 53.27 | 67.10 |
| 24000 | 58.26 | 59.36 | 54.61 | 53.28 | 52.86 | 66.51 |
| 24500 | 57.88 | 59.07 | 54.39 | 52.82 | 52.38 | 65.99 |
| 25000 | 57.62 | 58.92 | 54.22 | 52.50 | 52.07 | 65.36 |
| 25500 | 57.83 | 59.19 | 54.05 | 52.20 | 51.82 | 65.26 |
| 26000 | 58.08 | 59.23 | 53.93 | 52.24 | 51.75 | 64.97 |
| 26500 | 57.91 | 58.31 | 54.06 | 52.17 | 51.71 | 64.51 |
| 27000 | 57.25 | 57.92 | 54.38 | 52.43 | 51.99 | 64.62 |
| 27500 | 56.92 | 57.61 | 54.16 | 52.82 | 52.33 | 65.19 |
| 28000 | 57.09 | 57.77 | 54.69 | 53.21 | 52.72 | 64.26 |
| 28500 | 57.96 | 59.03 | 55.23 | 53.97 | 53.35 | 65.33 |
| 29000 | 59.07 | 59.50 | 55.77 | 54.45 | 54.12 | 67.09 |
| 29500 | 60.19 | 59.53 | 56.54 | 55.31 | 54.99 | 67.51 |
| 30000 | 60.85 | 59.35 | 56.91 | 55.93 | 55.50 | 68.63 |

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USB-1SP2T-34

Typical Performance Data

TEST CONDITIONS: @Temperature = +50°C, Pin = 8dBm

| Frequency (MHz) | Insertion Loss (dB) | | VSWR, Active Ports (:1) | | | VSWR, Internally Terminated Ports (:1) | |
|--------------------|------------------------|-------|-------------------------------|------|------|--|------|
| | COM-1 | COM-2 | J1 | J2 | COM | J1 | J2 |
| | 100 | 0.78 | 0.79 | 1.10 | 1.11 | 1.10 | 1.09 |
| 500 | 0.94 | 0.95 | 1.09 | 1.10 | 1.11 | 1.10 | 1.10 |
| 1000 | 1.03 | 1.05 | 1.07 | 1.07 | 1.11 | 1.14 | 1.13 |
| 1500 | 1.10 | 1.12 | 1.04 | 1.04 | 1.09 | 1.16 | 1.15 |
| 2000 | 1.16 | 1.19 | 1.06 | 1.06 | 1.07 | 1.16 | 1.16 |
| 2500 | 1.21 | 1.24 | 1.11 | 1.11 | 1.06 | 1.15 | 1.14 |
| 3000 | 1.27 | 1.30 | 1.14 | 1.14 | 1.07 | 1.12 | 1.12 |
| 3500 | 1.32 | 1.35 | 1.14 | 1.14 | 1.08 | 1.10 | 1.11 |
| 4000 | 1.37 | 1.40 | 1.13 | 1.14 | 1.11 | 1.10 | 1.10 |
| 4500 | 1.42 | 1.46 | 1.13 | 1.13 | 1.15 | 1.11 | 1.11 |
| 5000 | 1.49 | 1.53 | 1.13 | 1.14 | 1.18 | 1.11 | 1.12 |
| 5500 | 1.55 | 1.59 | 1.14 | 1.15 | 1.19 | 1.11 | 1.12 |
| 6000 | 1.60 | 1.65 | 1.13 | 1.14 | 1.16 | 1.09 | 1.10 |
| 6500 | 1.66 | 1.71 | 1.10 | 1.12 | 1.11 | 1.06 | 1.07 |
| 7000 | 1.71 | 1.76 | 1.06 | 1.09 | 1.06 | 1.05 | 1.04 |
| 7500 | 1.77 | 1.83 | 1.03 | 1.06 | 1.04 | 1.08 | 1.06 |
| 8000 | 1.84 | 1.90 | 1.03 | 1.04 | 1.04 | 1.13 | 1.10 |
| 8500 | 1.93 | 2.00 | 1.09 | 1.07 | 1.06 | 1.17 | 1.14 |
| 9000 | 2.02 | 2.10 | 1.14 | 1.12 | 1.08 | 1.20 | 1.17 |
| 9750 | 2.19 | 2.27 | 1.22 | 1.20 | 1.13 | 1.21 | 1.19 |
| 10500 | 2.35 | 2.45 | 1.26 | 1.24 | 1.18 | 1.19 | 1.19 |
| 11250 | 2.51 | 2.62 | 1.22 | 1.23 | 1.23 | 1.15 | 1.16 |
| 12000 | 2.67 | 2.77 | 1.14 | 1.16 | 1.28 | 1.07 | 1.09 |
| 12750 | 2.80 | 2.88 | 1.01 | 1.05 | 1.31 | 1.03 | 1.01 |
| 13500 | 2.92 | 2.95 | 1.12 | 1.06 | 1.31 | 1.15 | 1.10 |
| 14250 | 2.99 | 3.00 | 1.21 | 1.14 | 1.27 | 1.26 | 1.19 |
| 15000 | 3.02 | 3.02 | 1.20 | 1.14 | 1.13 | 1.30 | 1.23 |
| 15750 | 3.08 | 3.07 | 1.24 | 1.20 | 1.05 | 1.26 | 1.21 |
| 16500 | 3.14 | 3.12 | 1.33 | 1.30 | 1.18 | 1.17 | 1.13 |
| 17250 | 3.13 | 3.12 | 1.30 | 1.28 | 1.22 | 1.10 | 1.08 |
| 18000 | 3.11 | 3.12 | 1.13 | 1.13 | 1.12 | 1.14 | 1.11 |
| 18750 | 3.18 | 3.19 | 1.10 | 1.12 | 1.11 | 1.15 | 1.11 |
| 19500 | 3.28 | 3.29 | 1.16 | 1.17 | 1.13 | 1.08 | 1.04 |
| 20250 | 3.33 | 3.34 | 1.08 | 1.10 | 1.05 | 1.07 | 1.09 |
| 21000 | 3.40 | 3.43 | 1.09 | 1.12 | 1.11 | 1.22 | 1.23 |
| 21500 | 3.47 | 3.50 | 1.15 | 1.17 | 1.17 | 1.28 | 1.30 |
| 22000 | 3.54 | 3.57 | 1.18 | 1.18 | 1.19 | 1.32 | 1.32 |
| 22500 | 3.60 | 3.63 | 1.16 | 1.16 | 1.16 | 1.29 | 1.29 |
| 23000 | 3.65 | 3.68 | 1.13 | 1.15 | 1.13 | 1.20 | 1.19 |
| 23500 | 3.70 | 3.75 | 1.13 | 1.17 | 1.14 | 1.09 | 1.07 |
| 24000 | 3.76 | 3.80 | 1.11 | 1.16 | 1.12 | 1.07 | 1.06 |
| 24500 | 3.83 | 3.88 | 1.08 | 1.16 | 1.08 | 1.16 | 1.19 |
| 25000 | 3.91 | 3.96 | 1.11 | 1.18 | 1.00 | 1.26 | 1.31 |
| 25500 | 3.98 | 4.04 | 1.17 | 1.25 | 1.10 | 1.32 | 1.40 |
| 26000 | 4.03 | 4.10 | 1.20 | 1.28 | 1.16 | 1.33 | 1.42 |
| 26500 | 4.07 | 4.14 | 1.23 | 1.29 | 1.17 | 1.34 | 1.40 |
| 27000 | 4.16 | 4.21 | 1.27 | 1.27 | 1.15 | 1.36 | 1.37 |
| 27500 | 4.29 | 4.32 | 1.30 | 1.23 | 1.16 | 1.39 | 1.33 |
| 28000 | 4.46 | 4.48 | 1.32 | 1.23 | 1.24 | 1.41 | 1.30 |
| 28500 | 4.62 | 4.66 | 1.31 | 1.29 | 1.35 | 1.43 | 1.33 |
| 29000 | 4.73 | 4.81 | 1.30 | 1.37 | 1.43 | 1.42 | 1.40 |
| 29500 | 4.79 | 4.90 | 1.29 | 1.42 | 1.48 | 1.43 | 1.49 |
| 30000 | 4.81 | 4.92 | 1.32 | 1.45 | 1.50 | 1.47 | 1.59 |

Notes

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- 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



Solid State USB SPDT Switch

USB-1SP2T-34

Typical Performance Data

TEST CONDITIONS: @Temperature = +50°C, Pin = 8dBm

| Frequency (MHz) | Isolation @ Active states (dB) | | | Isolation @ Disconnected state (dB) | | |
|--------------------|--------------------------------------|-------|-------|---|-------|--------|
| | COM-1 | COM-2 | J1-J2 | COM-1 | COM-2 | J1-J2 |
| 100 | 85.30 | 86.12 | 91.99 | 81.99 | 82.68 | 106.44 |
| 500 | 76.84 | 77.82 | 84.59 | 74.28 | 75.55 | 96.71 |
| 1000 | 70.71 | 70.63 | 76.36 | 67.77 | 67.56 | 86.50 |
| 1500 | 67.39 | 67.19 | 72.33 | 64.18 | 63.87 | 83.68 |
| 2000 | 65.14 | 65.02 | 70.35 | 62.24 | 62.14 | 81.01 |
| 2500 | 64.06 | 63.90 | 68.72 | 60.98 | 60.91 | 80.34 |
| 3000 | 62.91 | 62.83 | 68.05 | 60.36 | 60.20 | 78.09 |
| 3500 | 62.37 | 62.36 | 67.49 | 59.84 | 59.81 | 77.97 |
| 4000 | 61.64 | 61.63 | 67.08 | 59.58 | 59.58 | 77.24 |
| 4500 | 61.17 | 61.19 | 67.19 | 59.42 | 59.28 | 77.10 |
| 5000 | 60.72 | 60.61 | 66.68 | 59.14 | 59.10 | 79.11 |
| 5500 | 60.14 | 60.05 | 66.42 | 59.15 | 59.12 | 79.41 |
| 6000 | 59.92 | 59.88 | 65.79 | 58.98 | 59.11 | 80.45 |
| 6500 | 59.97 | 59.87 | 65.85 | 59.07 | 59.12 | 80.41 |
| 7000 | 60.55 | 60.45 | 65.82 | 59.06 | 59.17 | 78.67 |
| 7500 | 61.31 | 61.36 | 65.92 | 59.14 | 59.33 | 78.20 |
| 8000 | 62.14 | 62.53 | 66.32 | 59.30 | 59.48 | 76.26 |
| 8500 | 63.06 | 63.45 | 66.52 | 59.48 | 59.77 | 76.36 |
| 9000 | 63.62 | 64.45 | 66.97 | 59.75 | 60.28 | 76.17 |
| 9750 | 64.40 | 65.50 | 67.09 | 60.18 | 61.04 | 75.90 |
| 10500 | 64.84 | 66.27 | 66.51 | 60.95 | 62.17 | 76.02 |
| 11250 | 65.54 | 66.24 | 65.95 | 61.95 | 63.12 | 76.95 |
| 12000 | 66.31 | 67.06 | 65.20 | 63.10 | 64.47 | 77.66 |
| 12750 | 69.22 | 69.84 | 64.03 | 65.04 | 66.29 | 77.02 |
| 13500 | 72.86 | 72.13 | 63.23 | 67.24 | 68.14 | 76.34 |
| 14250 | 73.55 | 76.82 | 62.48 | 70.53 | 69.44 | 74.44 |
| 15000 | 74.26 | 80.17 | 60.89 | 72.86 | 70.66 | 73.40 |
| 15750 | 75.93 | 77.87 | 60.32 | 70.19 | 73.48 | 73.94 |
| 16500 | 72.65 | 73.21 | 58.94 | 68.93 | 68.40 | 71.69 |
| 17250 | 69.69 | 69.49 | 58.08 | 65.09 | 65.32 | 70.40 |
| 18000 | 66.87 | 66.61 | 57.52 | 62.61 | 62.88 | 70.07 |
| 18750 | 64.69 | 64.77 | 56.81 | 60.72 | 60.70 | 69.04 |
| 19500 | 63.84 | 64.23 | 56.34 | 59.08 | 59.24 | 68.85 |
| 20250 | 63.12 | 63.88 | 55.92 | 57.77 | 57.80 | 69.03 |
| 21000 | 61.50 | 62.37 | 55.59 | 57.04 | 56.94 | 68.58 |
| 21500 | 60.25 | 60.88 | 55.72 | 56.45 | 56.27 | 69.37 |
| 22000 | 59.55 | 60.22 | 55.72 | 55.84 | 55.49 | 69.97 |
| 22500 | 59.64 | 60.28 | 55.61 | 55.23 | 54.92 | 69.13 |
| 23000 | 59.68 | 60.53 | 55.40 | 54.66 | 54.35 | 68.17 |
| 23500 | 59.53 | 60.54 | 55.05 | 54.12 | 53.69 | 67.20 |
| 24000 | 58.80 | 59.98 | 54.87 | 53.65 | 53.20 | 66.81 |
| 24500 | 58.17 | 59.62 | 54.68 | 53.15 | 52.80 | 66.57 |
| 25000 | 57.99 | 59.55 | 54.57 | 52.88 | 52.40 | 65.84 |
| 25500 | 58.26 | 59.75 | 54.37 | 52.58 | 52.14 | 65.37 |
| 26000 | 58.49 | 59.74 | 54.35 | 52.43 | 52.04 | 65.04 |
| 26500 | 58.27 | 59.01 | 54.37 | 52.57 | 52.17 | 64.73 |
| 27000 | 57.56 | 58.07 | 54.47 | 52.86 | 52.34 | 64.34 |
| 27500 | 57.29 | 57.96 | 55.05 | 53.11 | 52.74 | 65.16 |
| 28000 | 57.48 | 58.41 | 55.33 | 54.00 | 53.20 | 65.42 |
| 28500 | 58.36 | 59.07 | 55.84 | 54.55 | 54.08 | 65.59 |
| 29000 | 59.62 | 60.13 | 56.77 | 55.24 | 54.87 | 66.71 |
| 29500 | 60.31 | 60.18 | 57.22 | 55.81 | 55.45 | 68.43 |
| 30000 | 60.69 | 58.97 | 57.77 | 56.61 | 56.15 | 69.07 |

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