

SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = -10°C, Pin = 5 dBm.

Freq. (GHz)	Insertion Loss (dB)			
	COM-J1	COM-J2	COM-J3	COM-J4
0.10	-2.50	-2.51	-2.50	-2.52
0.50	-1.57	-1.54	-1.54	-1.56
1.00	-1.59	-1.56	-1.55	-1.58
1.50	-1.62	-1.62	-1.60	-1.61
2.00	-1.69	-1.69	-1.68	-1.67
2.50	-1.79	-1.79	-1.78	-1.77
3.00	-1.90	-1.90	-1.89	-1.87
3.50	-1.84	-1.78	-1.80	-1.81
4.00	-1.88	-1.81	-1.79	-1.86
4.50	-2.04	-1.89	-1.84	-2.00
5.00	-2.07	-2.03	-1.96	-2.03
5.50	-2.26	-2.40	-2.42	-2.15
6.00	-2.29	-2.36	-2.37	-2.32
6.50	-2.37	-2.19	-2.27	-2.37
7.00	-2.46	-2.16	-2.25	-2.56
7.50	-2.39	-2.18	-2.23	-2.50
8.00	-2.34	-2.40	-2.35	-2.32
8.50	-2.58	-2.55	-2.52	-2.43
9.00	-2.73	-2.57	-2.61	-2.65
9.50	-2.65	-2.44	-2.56	-2.71
10.00	-2.66	-2.49	-2.59	-2.73
10.50	-2.93	-2.85	-2.89	-3.04
11.00	-2.62	-2.55	-2.54	-2.62
11.50	-2.67	-2.51	-2.52	-2.60
12.00	-2.92	-2.66	-2.63	-2.80
12.50	-3.12	-2.86	-2.95	-2.98
13.00	-2.94	-2.87	-3.15	-2.95
13.50	-2.86	-2.93	-3.35	-2.89
14.00	-2.99	-3.01	-3.60	-2.86
14.50	-3.68	-3.41	-3.97	-3.22
15.00	-3.98	-3.49	-3.52	-3.80
15.50	-3.69	-3.24	-3.11	-3.92
16.00	-3.46	-2.99	-2.95	-3.81
16.50	-3.20	-3.03	-3.03	-3.55
17.00	-3.54	-3.34	-3.56	-3.45
17.50	-3.41	-3.21	-3.41	-3.28
18.00	-3.53	-3.36	-3.62	-3.44
18.50	-3.62	-3.80	-3.55	-3.63
19.00	-4.00	-4.32	-3.73	-3.62
19.50	-4.44	-4.58	-4.34	-4.24
20.00	-4.90	-4.70	-4.41	-4.54

SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = -10°C, Pin = 5 dBm.

Freq. (GHz)	Return Loss, Active ports (dB)					R. Loss, Internally terminated ports (dB)			
	COM	J1	J2	J3	J4	J1	J2	J3	J4
0.10	-10.84	-8.46	-8.40	-8.46	-8.38	-29.22	-29.21	-29.29	-29.21
0.50	-22.85	-17.73	-18.39	-18.39	-17.73	-29.05	-29.05	-29.19	-29.55
1.00	-31.96	-21.10	-20.99	-20.71	-21.24	-26.52	-26.52	-26.71	-26.55
1.50	-27.18	-26.34	-22.76	-22.44	-26.02	-24.47	-24.47	-25.29	-24.26
2.00	-19.48	-28.10	-24.79	-24.32	-30.42	-22.55	-22.55	-23.15	-22.76
2.50	-16.82	-26.31	-23.06	-23.35	-27.18	-20.23	-20.23	-21.12	-20.92
3.00	-16.88	-25.26	-21.34	-21.97	-25.39	-18.29	-18.28	-18.17	-18.63
3.50	-20.28	-19.88	-22.42	-23.61	-20.04	-16.71	-16.71	-16.50	-17.15
4.00	-27.24	-18.24	-21.84	-25.22	-18.42	-15.45	-15.45	-15.17	-16.37
4.50	-19.23	-16.52	-18.69	-21.55	-16.36	-14.33	-14.33	-14.00	-15.12
5.00	-16.76	-18.27	-14.53	-15.35	-17.25	-13.38	-13.38	-13.20	-14.46
5.50	-16.65	-17.11	-12.11	-11.79	-17.65	-12.83	-12.83	-12.66	-13.84
6.00	-19.58	-16.85	-15.02	-13.44	-18.04	-12.64	-12.64	-12.33	-13.63
6.50	-17.17	-12.12	-15.81	-12.65	-11.82	-12.66	-12.65	-12.58	-13.79
7.00	-17.30	-12.28	-18.34	-14.13	-10.74	-13.36	-13.36	-13.17	-14.72
7.50	-21.66	-15.61	-15.59	-15.57	-12.34	-14.63	-14.62	-14.56	-16.04
8.00	-17.94	-16.80	-12.53	-13.86	-16.20	-16.38	-16.37	-16.64	-17.63
8.50	-11.95	-12.44	-11.89	-11.75	-14.03	-19.75	-19.73	-20.39	-20.59
9.00	-11.93	-11.75	-13.31	-11.84	-11.65	-28.58	-28.53	-25.80	-25.55
9.50	-16.10	-13.63	-15.78	-13.20	-11.87	-25.16	-25.16	-21.80	-20.29
10.00	-23.25	-19.20	-20.86	-15.07	-13.68	-16.51	-16.50	-15.86	-15.08
10.50	-34.02	-21.51	-18.82	-18.20	-21.73	-12.99	-12.97	-13.14	-12.38
11.00	-18.56	-20.31	-19.66	-21.76	-29.15	-11.28	-11.27	-11.97	-11.17
11.50	-14.82	-33.03	-27.56	-22.53	-35.69	-11.20	-11.20	-12.61	-10.99
12.00	-10.93	-16.95	-22.65	-25.03	-22.44	-11.40	-11.41	-13.73	-11.53
12.50	-10.26	-13.82	-16.91	-17.57	-15.82	-11.94	-11.94	-14.27	-12.04
13.00	-12.40	-15.71	-15.43	-13.75	-14.90	-12.27	-12.25	-14.02	-12.13
13.50	-17.22	-20.91	-14.53	-11.00	-16.07	-12.46	-12.45	-14.18	-13.03
14.00	-20.57	-22.52	-15.24	-9.66	-22.69	-13.10	-13.09	-13.56	-14.02
14.50	-11.49	-13.45	-14.34	-9.82	-19.46	-12.82	-12.82	-12.12	-13.65
15.00	-9.63	-13.53	-13.65	-14.47	-14.20	-11.56	-11.56	-10.89	-11.72
15.50	-9.65	-13.21	-14.64	-16.31	-11.29	-11.06	-11.04	-10.78	-10.58
16.00	-11.63	-12.69	-25.17	-20.55	-10.58	-11.14	-11.12	-11.88	-10.77
16.50	-18.64	-16.99	-18.67	-22.46	-11.27	-12.82	-12.81	-13.92	-12.65
17.00	-23.22	-16.03	-18.37	-13.04	-18.16	-12.70	-12.72	-11.58	-12.19
17.50	-23.38	-16.60	-18.84	-12.18	-19.24	-9.65	-9.64	-8.30	-8.54
18.00	-20.45	-17.66	-17.13	-11.88	-14.98	-7.30	-7.29	-6.65	-6.52
18.50	-22.68	-26.21	-11.73	-17.77	-14.99	-6.41	-6.41	-6.27	-5.94
19.00	-17.43	-14.62	-9.19	-18.42	-21.84	-6.53	-6.53	-6.20	-6.10
19.50	-23.90	-13.00	-9.28	-12.30	-12.27	-6.65	-6.66	-6.41	-6.60
20.00	-11.51	-11.03	-8.61	-11.85	-11.63	-7.22	-7.22	-6.63	-7.27

SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = -10°C, Pin = 5 dBm.

Freq. (GHz)	Isolation, Active states (dB)				Isolation, Disconnected states (dB)			
	COM-J1	COM-J2	J2-J3	J3-J4	COM-J1	COM-J2	COM-J3	COM-J4
0.10	-97.05	-93.99	-96.27	-97.01	-99.19	-105.27	-89.74	-93.49
0.50	-93.64	-93.68	-92.64	-81.89	-98.22	-96.87	-93.84	-92.42
1.00	-94.57	-91.10	-86.89	-82.04	-92.82	-94.65	-99.29	-89.66
1.50	-88.05	-93.65	-87.40	-101.87	-88.95	-90.76	-94.35	-97.48
2.00	-103.17	-95.38	-89.91	-81.69	-96.13	-98.10	-89.05	-90.37
2.50	-78.81	-75.49	-73.63	-77.07	-89.75	-90.71	-91.08	-99.91
3.00	-80.94	-82.40	-81.62	-77.78	-89.61	-88.73	-106.15	-88.24
3.50	-77.12	-71.40	-69.74	-78.37	-82.85	-94.77	-87.44	-81.70
4.00	-77.24	-72.90	-71.21	-64.88	-91.41	-103.73	-91.25	-87.76
4.50	-88.79	-68.15	-64.98	-57.73	-98.11	-83.78	-86.33	-89.74
5.00	-82.59	-83.28	-70.64	-63.93	-93.80	-86.71	-87.11	-93.71
5.50	-78.73	-67.16	-62.25	-63.99	-83.89	-86.02	-88.30	-88.15
6.00	-72.48	-71.38	-70.40	-65.50	-83.76	-108.92	-96.40	-84.50
6.50	-68.00	-69.46	-67.09	-61.56	-77.36	-97.96	-92.66	-80.47
7.00	-67.87	-71.90	-71.20	-58.78	-77.51	-111.17	-96.28	-72.19
7.50	-94.41	-70.50	-65.21	-63.54	-81.49	-90.55	-93.14	-80.03
8.00	-79.17	-70.54	-68.95	-60.80	-92.81	-84.28	-91.45	-85.27
8.50	-85.60	-68.53	-63.81	-62.92	-84.50	-83.29	-98.14	-91.93
9.00	-69.88	-67.19	-65.13	-68.36	-80.81	-84.72	-109.72	-91.31
9.50	-77.08	-69.10	-65.64	-60.67	-78.95	-82.25	-89.51	-85.28
10.00	-66.65	-69.31	-78.66	-61.48	-71.22	-75.92	-82.91	-77.60
10.50	-72.59	-64.33	-66.96	-63.16	-72.88	-80.53	-80.07	-69.84
11.00	-73.07	-61.11	-59.45	-63.50	-79.28	-90.52	-84.28	-75.61
11.50	-77.03	-63.77	-62.71	-64.42	-78.72	-82.90	-84.35	-81.51
12.00	-74.68	-78.16	-73.24	-66.29	-80.54	-82.47	-81.31	-81.86
12.50	-74.54	-66.00	-71.48	-58.62	-76.29	-80.63	-88.61	-92.37
13.00	-66.62	-61.50	-61.76	-52.58	-70.60	-82.94	-78.74	-81.37
13.50	-68.39	-64.67	-70.64	-62.79	-71.51	-78.61	-81.40	-76.48
14.00	-68.78	-79.59	-71.61	-65.31	-79.18	-82.59	-83.70	-71.60
14.50	-69.04	-71.36	-68.87	-60.53	-80.41	-80.45	-92.18	-80.63
15.00	-67.64	-64.35	-66.82	-57.04	-78.56	-84.61	-84.18	-89.20
15.50	-78.74	-67.32	-64.57	-57.77	-80.46	-86.96	-75.91	-80.89
16.00	-67.39	-77.51	-72.25	-53.54	-68.91	-81.07	-76.19	-82.19
16.50	-62.85	-71.25	-72.15	-52.47	-62.87	-86.69	-79.08	-75.01
17.00	-75.66	-79.01	-73.55	-57.57	-71.79	-85.85	-86.96	-70.72
17.50	-69.99	-79.08	-79.97	-63.85	-78.44	-88.49	-84.19	-79.70
18.00	-70.49	-72.30	-69.38	-60.57	-76.73	-87.00	-84.94	-81.98
18.50	-78.42	-74.74	-74.16	-62.40	-74.89	-81.48	-80.29	-82.77
19.00	-70.26	-66.27	-71.13	-74.28	-77.82	-84.22	-80.71	-73.54
19.50	-60.96	-68.46	-71.71	-72.42	-66.76	-74.69	-76.14	-81.22
20.00	-66.30	-69.26	-70.04	-76.73	-68.72	-74.72	-73.21	-72.74

SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = +25°C, Pin = 5 dBm.

Freq. (GHz)	Insertion Loss (dB)			
	COM-J1	COM-J2	COM-J3	COM-J4
0.10	-2.58	-2.58	-2.58	-2.60
0.50	-1.61	-1.59	-1.59	-1.61
1.00	-1.64	-1.62	-1.61	-1.64
1.50	-1.70	-1.70	-1.68	-1.69
2.00	-1.78	-1.79	-1.77	-1.76
2.50	-1.88	-1.90	-1.88	-1.86
3.00	-1.97	-1.99	-1.96	-1.94
3.50	-1.91	-1.86	-1.87	-1.89
4.00	-1.99	-1.91	-1.88	-1.98
4.50	-2.14	-2.00	-1.94	-2.11
5.00	-2.18	-2.17	-2.08	-2.15
5.50	-2.38	-2.56	-2.56	-2.28
6.00	-2.38	-2.49	-2.48	-2.42
6.50	-2.48	-2.33	-2.39	-2.50
7.00	-2.59	-2.29	-2.36	-2.68
7.50	-2.51	-2.35	-2.35	-2.62
8.00	-2.46	-2.54	-2.46	-2.45
8.50	-2.66	-2.69	-2.58	-2.53
9.00	-2.83	-2.74	-2.70	-2.74
9.50	-2.78	-2.63	-2.70	-2.85
10.00	-2.79	-2.68	-2.72	-2.87
10.50	-3.05	-3.05	-2.99	-3.15
11.00	-2.78	-2.76	-2.72	-2.81
11.50	-2.85	-2.78	-2.74	-2.82
12.00	-3.07	-2.95	-2.83	-2.99
12.50	-3.31	-3.12	-3.10	-3.16
13.00	-3.25	-3.28	-3.42	-3.28
13.50	-3.12	-3.38	-3.78	-3.20
14.00	-3.32	-3.44	-3.93	-3.13
14.50	-4.08	-3.95	-4.22	-3.67
15.00	-4.10	-3.79	-3.64	-4.01
15.50	-3.90	-3.65	-3.31	-4.12
16.00	-3.69	-3.49	-3.18	-4.09
16.50	-3.48	-3.61	-3.32	-3.88
17.00	-3.79	-4.03	-3.85	-3.79
17.50	-3.66	-3.80	-3.68	-3.51
18.00	-3.79	-3.99	-3.79	-3.69
18.50	-3.90	-4.40	-3.77	-3.88
19.00	-4.24	-4.86	-3.98	-3.95
19.50	-4.84	-5.35	-4.66	-4.61
20.00	-5.36	-5.50	-4.94	-5.07

SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = +25°C, Pin = 5 dBm.

Freq. (GHz)	Return Loss, Active ports (dB)					R. Loss, Internally terminated ports (dB)			
	COM	J1	J2	J3	J4	J1	J2	J3	J4
0.10	-10.98	-8.46	-8.42	-8.47	-8.39	-29.13	-29.13	-29.20	-29.07
0.50	-22.51	-17.72	-18.32	-18.22	-17.59	-28.97	-28.97	-29.03	-29.55
1.00	-30.73	-20.83	-21.10	-20.40	-20.92	-26.70	-26.70	-27.72	-26.46
1.50	-27.12	-25.68	-22.46	-22.32	-25.63	-24.14	-24.14	-24.58	-24.26
2.00	-19.35	-28.37	-24.27	-23.37	-30.02	-22.08	-22.08	-23.18	-22.20
2.50	-16.65	-27.26	-23.13	-22.98	-28.19	-20.03	-20.03	-20.50	-20.61
3.00	-16.83	-24.70	-22.31	-23.11	-25.16	-18.29	-18.29	-18.48	-18.76
3.50	-20.78	-19.67	-23.07	-24.42	-19.67	-16.68	-16.68	-16.56	-17.30
4.00	-27.00	-17.78	-21.79	-25.43	-17.92	-15.43	-15.43	-15.17	-16.30
4.50	-19.50	-16.53	-18.50	-20.70	-16.33	-14.40	-14.40	-14.26	-15.16
5.00	-16.44	-18.14	-14.17	-14.87	-17.30	-13.41	-13.41	-13.07	-14.35
5.50	-16.39	-17.07	-12.08	-11.70	-17.66	-12.88	-12.88	-12.81	-14.02
6.00	-19.65	-16.64	-14.76	-13.29	-17.78	-12.71	-12.71	-12.50	-13.92
6.50	-16.90	-12.11	-16.01	-12.67	-11.67	-12.79	-12.79	-12.81	-13.97
7.00	-17.33	-12.25	-18.59	-14.24	-10.75	-13.49	-13.49	-13.36	-14.73
7.50	-22.22	-15.55	-15.28	-15.34	-12.45	-14.78	-14.78	-14.66	-16.14
8.00	-17.31	-16.59	-12.76	-14.06	-16.00	-16.89	-16.89	-17.25	-18.26
8.50	-12.55	-12.93	-12.05	-12.42	-14.62	-21.41	-21.41	-21.61	-22.41
9.00	-12.14	-12.13	-13.86	-12.32	-12.19	-36.51	-36.50	-29.42	-27.88
9.50	-15.18	-14.19	-16.66	-13.66	-12.32	-23.83	-23.83	-21.97	-21.04
10.00	-22.65	-21.21	-24.07	-16.32	-14.82	-17.09	-17.09	-17.01	-16.11
10.50	-25.63	-21.48	-18.42	-18.45	-21.85	-13.81	-13.81	-13.96	-13.21
11.00	-18.20	-21.80	-22.19	-19.62	-25.55	-11.84	-11.84	-12.75	-11.60
11.50	-15.62	-35.45	-25.82	-21.64	-35.61	-11.12	-11.12	-12.11	-10.81
12.00	-12.26	-19.00	-24.45	-30.50	-26.74	-10.99	-10.99	-13.79	-10.87
12.50	-10.31	-13.94	-17.49	-19.91	-16.72	-11.64	-11.65	-14.32	-11.77
13.00	-11.26	-14.43	-15.22	-13.29	-13.84	-12.81	-12.81	-15.63	-12.95
13.50	-17.09	-22.84	-14.41	-10.37	-15.89	-13.31	-13.31	-14.86	-14.16
14.00	-16.85	-19.58	-15.92	-9.98	-31.61	-13.25	-13.25	-12.94	-13.83
14.50	-11.91	-13.83	-14.12	-10.77	-17.66	-12.39	-12.39	-12.88	-12.81
15.00	-10.61	-14.36	-14.22	-14.48	-14.82	-11.52	-11.52	-11.39	-11.96
15.50	-10.44	-12.64	-18.27	-16.65	-11.55	-11.86	-11.86	-12.48	-11.75
16.00	-11.72	-13.21	-24.09	-25.59	-10.52	-12.32	-12.32	-12.67	-12.01
16.50	-16.40	-18.55	-20.04	-21.79	-12.02	-12.72	-12.71	-13.70	-12.13
17.00	-29.34	-19.87	-21.49	-14.16	-20.90	-11.68	-11.67	-11.88	-11.05
17.50	-21.69	-17.23	-25.62	-12.85	-23.60	-9.96	-9.96	-9.89	-9.02
18.00	-22.09	-20.57	-18.03	-14.00	-16.95	-8.28	-8.28	-7.74	-7.49
18.50	-27.55	-29.07	-12.98	-19.86	-17.64	-7.23	-7.23	-7.34	-6.73
19.00	-24.95	-16.79	-9.64	-20.69	-19.71	-6.68	-6.68	-6.47	-6.35
19.50	-18.35	-12.07	-9.61	-12.74	-12.48	-6.30	-6.29	-7.33	-6.40
20.00	-12.16	-9.39	-8.04	-10.12	-9.66	-6.98	-6.98	-7.53	-7.05

SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = +25°C, Pin = 5 dBm.

Freq. (GHz)	Isolation, Active states (dB)				Isolation, Disconnected states (dB)			
	COM-J1	COM-J2	J2-J3	J3-J4	COM-J1	COM-J2	COM-J3	COM-J4
0.10	-90.75	-94.77	-96.48	-98.57	-100.84	-102.76	-91.52	-97.73
0.50	-93.51	-93.25	-96.30	-89.31	-88.51	-95.96	-92.20	-94.00
1.00	-85.04	-96.80	-93.01	-81.38	-93.11	-95.12	-98.90	-93.46
1.50	-83.23	-94.53	-85.76	-89.15	-86.84	-92.64	-95.16	-97.12
2.00	-89.43	-94.51	-90.50	-83.19	-99.94	-103.89	-98.88	-88.90
2.50	-78.35	-77.98	-75.58	-77.07	-91.54	-93.33	-96.21	-94.49
3.00	-78.94	-83.77	-84.44	-77.87	-85.89	-87.24	-95.91	-85.97
3.50	-78.50	-73.01	-70.58	-76.72	-85.87	-100.41	-92.67	-80.37
4.00	-78.68	-72.74	-71.09	-64.75	-85.91	-89.16	-105.22	-86.02
4.50	-96.77	-69.80	-65.73	-58.15	-88.71	-103.81	-93.37	-95.09
5.00	-82.42	-81.43	-71.66	-64.39	-88.24	-89.90	-94.31	-86.00
5.50	-78.46	-66.56	-62.61	-64.18	-97.38	-84.67	-97.46	-84.04
6.00	-74.75	-72.83	-70.88	-64.60	-84.49	-90.75	-92.79	-83.83
6.50	-68.77	-72.99	-68.67	-62.16	-75.86	-93.50	-91.29	-79.51
7.00	-68.20	-71.51	-71.02	-59.61	-76.34	-92.02	-95.34	-72.13
7.50	-85.15	-71.62	-66.94	-64.07	-80.06	-94.62	-89.19	-81.29
8.00	-78.54	-72.12	-70.43	-61.68	-90.84	-92.48	-96.19	-88.39
8.50	-78.32	-70.00	-65.62	-64.44	-84.42	-83.62	-94.69	-82.31
9.00	-70.09	-67.54	-65.97	-67.82	-80.23	-89.84	-103.02	-92.73
9.50	-80.66	-72.69	-67.39	-60.92	-82.56	-81.72	-84.45	-81.54
10.00	-65.18	-69.65	-79.24	-62.14	-70.98	-80.91	-85.06	-77.09
10.50	-72.02	-64.84	-67.59	-64.64	-75.62	-85.40	-77.44	-68.80
11.00	-75.07	-63.89	-60.74	-63.48	-80.39	-92.80	-81.03	-75.96
11.50	-78.85	-66.40	-65.87	-66.26	-80.47	-88.48	-88.46	-80.20
12.00	-73.82	-73.92	-75.43	-67.43	-78.23	-88.01	-88.60	-82.73
12.50	-73.56	-66.86	-68.71	-58.37	-75.83	-79.70	-83.11	-91.73
13.00	-68.83	-62.60	-63.31	-54.43	-71.64	-84.68	-80.41	-85.14
13.50	-68.86	-67.09	-72.79	-65.04	-70.54	-89.39	-85.56	-82.47
14.00	-67.76	-79.69	-74.31	-65.50	-76.99	-82.58	-82.13	-74.53
14.50	-73.11	-68.94	-71.87	-61.66	-90.26	-78.24	-92.43	-77.57
15.00	-68.67	-65.79	-66.12	-57.87	-90.38	-92.39	-88.26	-87.80
15.50	-78.47	-70.11	-67.13	-58.45	-77.62	-85.80	-79.81	-80.09
16.00	-65.73	-73.68	-75.31	-54.44	-68.03	-81.04	-77.12	-83.34
16.50	-63.28	-73.34	-74.87	-53.59	-64.49	-89.32	-87.04	-75.16
17.00	-75.87	-85.91	-78.44	-60.32	-74.76	-87.58	-79.52	-72.99
17.50	-70.75	-82.43	-83.09	-64.94	-76.45	-92.09	-82.47	-84.85
18.00	-73.03	-71.59	-70.21	-60.76	-75.49	-83.68	-92.80	-78.10
18.50	-78.62	-77.43	-86.06	-63.81	-76.65	-82.70	-84.79	-81.47
19.00	-68.70	-67.59	-71.45	-81.92	-78.53	-79.56	-98.44	-73.24
19.50	-62.16	-69.00	-72.99	-74.70	-66.58	-74.65	-78.07	-96.03
20.00	-69.76	-69.90	-72.88	-80.41	-71.42	-82.72	-74.77	-70.77

SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = +60°C, Pin = 5 dBm.

Freq. (GHz)	Insertion Loss (dB)			
	COM-J1	COM-J2	COM-J3	COM-J4
0.10	-2.64	-2.64	-2.64	-2.66
0.50	-1.66	-1.63	-1.63	-1.66
1.00	-1.71	-1.67	-1.67	-1.71
1.50	-1.77	-1.77	-1.77	-1.78
2.00	-1.85	-1.86	-1.86	-1.85
2.50	-1.94	-1.95	-1.96	-1.94
3.00	-2.01	-2.01	-2.01	-2.00
3.50	-1.97	-1.89	-1.93	-1.96
4.00	-2.07	-1.96	-1.95	-2.07
4.50	-2.22	-2.07	-2.03	-2.21
5.00	-2.26	-2.24	-2.19	-2.25
5.50	-2.47	-2.64	-2.68	-2.38
6.00	-2.41	-2.51	-2.54	-2.46
6.50	-2.52	-2.34	-2.45	-2.55
7.00	-2.64	-2.28	-2.42	-2.74
7.50	-2.55	-2.34	-2.41	-2.68
8.00	-2.48	-2.50	-2.49	-2.51
8.50	-2.64	-2.66	-2.58	-2.54
9.00	-2.84	-2.74	-2.73	-2.76
9.50	-2.87	-2.67	-2.78	-2.95
10.00	-2.90	-2.74	-2.85	-3.01
10.50	-3.14	-3.05	-3.09	-3.26
11.00	-2.93	-2.86	-2.89	-2.99
11.50	-3.00	-2.86	-2.94	-3.01
12.00	-3.15	-2.95	-2.96	-3.11
12.50	-3.46	-3.16	-3.23	-3.31
13.00	-3.51	-3.42	-3.65	-3.56
13.50	-3.33	-3.52	-4.16	-3.50
14.00	-3.59	-3.55	-4.27	-3.38
14.50	-4.28	-3.99	-4.35	-3.93
15.00	-4.26	-3.80	-3.78	-4.25
15.50	-4.06	-3.50	-3.48	-4.30
16.00	-3.83	-3.39	-3.37	-4.25
16.50	-3.65	-3.52	-3.54	-4.08
17.00	-3.97	-3.85	-4.10	-4.01
17.50	-3.86	-3.64	-3.92	-3.73
18.00	-4.03	-3.86	-3.98	-3.93
18.50	-4.14	-4.36	-4.00	-4.13
19.00	-4.48	-4.77	-4.24	-4.26
19.50	-5.18	-5.39	-4.91	-4.92
20.00	-5.90	-5.81	-5.41	-5.48

NOTES:

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SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = +60°C, Pin = 5 dBm.

Freq. (GHz)	Return Loss, Active ports (dB)					R. Loss, Internally terminated ports (dB)			
	COM	J1	J2	J3	J4	J1	J2	J3	J4
0.10	-11.07	-8.47	-8.43	-29.23	-8.44	-29.23	-29.24	-29.06	-29.17
0.50	-21.92	-17.39	-18.02	-28.43	-17.31	-28.43	-28.43	-28.35	-28.74
1.00	-30.43	-20.71	-20.60	-25.95	-20.73	-25.95	-25.95	-26.62	-26.11
1.50	-26.95	-25.32	-22.29	-23.78	-25.36	-23.78	-23.79	-24.58	-23.74
2.00	-19.28	-28.87	-23.47	-21.83	-30.59	-21.83	-21.83	-22.26	-21.89
2.50	-16.50	-28.00	-23.41	-19.86	-29.26	-19.86	-19.86	-20.41	-20.50
3.00	-16.73	-23.89	-23.66	-18.19	-24.27	-18.20	-18.19	-18.38	-18.78
3.50	-20.22	-19.18	-23.43	-16.64	-19.12	-16.63	-16.64	-16.64	-17.22
4.00	-26.82	-17.45	-21.21	-15.41	-17.58	-15.41	-15.41	-15.07	-16.21
4.50	-19.86	-16.34	-17.70	-14.37	-16.22	-14.37	-14.37	-13.98	-14.96
5.00	-16.01	-17.87	-13.80	-13.33	-16.99	-13.32	-13.33	-12.94	-14.12
5.50	-15.69	-16.69	-11.79	-12.78	-17.12	-12.78	-12.78	-12.57	-13.99
6.00	-18.82	-16.38	-14.35	-12.76	-17.47	-12.76	-12.76	-12.38	-14.03
6.50	-16.60	-11.95	-15.69	-12.88	-11.65	-12.88	-12.88	-12.71	-14.05
7.00	-17.27	-11.99	-18.48	-13.56	-10.74	-13.57	-13.56	-13.39	-14.63
7.50	-21.90	-15.18	-15.24	-14.85	-12.34	-14.85	-14.86	-14.72	-15.96
8.00	-16.94	-16.56	-12.74	-17.21	-15.71	-17.21	-17.21	-17.12	-18.35
8.50	-13.14	-13.36	-12.06	-22.76	-15.22	-22.77	-22.77	-22.35	-23.28
9.00	-12.30	-12.30	-13.12	-46.81	-12.44	-46.74	-46.85	-27.63	-26.96
9.50	-14.16	-14.26	-17.27	-22.67	-12.50	-22.66	-22.67	-21.58	-20.82
10.00	-19.67	-22.39	-26.62	-17.48	-15.33	-17.47	-17.47	-17.00	-16.80
10.50	-23.04	-21.26	-19.62	-14.60	-22.14	-14.60	-14.60	-14.63	-14.01
11.00	-17.21	-21.23	-21.27	-12.15	-22.76	-12.15	-12.15	-12.85	-11.94
11.50	-16.21	-33.48	-27.12	-10.97	-32.31	-10.97	-10.97	-12.16	-10.61
12.00	-13.10	-20.29	-26.96	-10.62	-29.28	-10.63	-10.62	-12.26	-10.16
12.50	-10.07	-13.60	-17.75	-11.22	-17.42	-11.22	-11.22	-13.91	-11.18
13.00	-10.17	-13.18	-13.67	-13.13	-12.91	-13.14	-13.13	-16.50	-13.53
13.50	-15.85	-23.08	-14.05	-14.45	-14.91	-14.45	-14.45	-15.68	-15.99
14.00	-14.26	-17.43	-15.81	-13.81	-45.13	-13.81	-13.81	-12.89	-14.16
14.50	-11.22	-14.16	-12.68	-12.29	-16.16	-12.29	-12.29	-11.36	-11.98
15.00	-10.91	-14.44	-13.91	-11.23	-15.02	-11.24	-11.24	-11.30	-11.40
15.50	-11.12	-12.19	-18.99	-12.29	-11.65	-12.29	-12.29	-12.29	-12.32
16.00	-12.34	-13.48	-27.68	-13.43	-10.55	-13.43	-13.43	-13.55	-13.52
16.50	-16.14	-19.57	-19.89	-13.28	-12.40	-13.28	-13.27	-13.46	-12.39
17.00	-25.91	-22.04	-19.79	-11.14	-23.20	-11.14	-11.14	-11.03	-10.29
17.50	-21.01	-17.97	-29.81	-9.99	-24.89	-9.99	-9.99	-9.26	-9.05
18.00	-19.72	-20.91	-18.62	-9.00	-18.12	-9.00	-8.99	-7.77	-8.30
18.50	-26.01	-31.56	-11.93	-7.95	-19.69	-7.95	-7.95	-6.68	-7.65
19.00	-37.91	-17.50	-9.78	-7.01	-19.08	-7.00	-7.01	-6.17	-6.75
19.50	-16.43	-12.00	-8.22	-6.05	-12.51	-6.05	-6.05	-6.16	-6.36
20.00	-10.36	-8.13	-6.94	-6.53	-8.88	-6.53	-6.53	-7.08	-6.60

NOTES:

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SP4T Solid-State Switch

TTL-1SP4T-183

Typical Performance Data

Test Conditions: @ Temperature = +60°C, Pin = 5 dBm.

Freq. (GHz)	Isolation, Active states (dB)				Isolation, Disconnected states (dB)			
	COM-J1	COM-J2	J2-J3	J3-J4	COM-J1	COM-J2	COM-J3	COM-J4
0.10	-104.52	-90.25	-94.64	-97.34	-102.17	-92.88	-93.22	-88.43
0.50	-100.34	-96.82	-100.07	-84.68	-84.56	-105.59	-98.84	-97.92
1.00	-107.18	-91.01	-90.34	-84.01	-90.85	-94.89	-99.83	-90.87
1.50	-97.19	-89.95	-93.85	-90.89	-92.27	-93.92	-106.13	-93.38
2.00	-90.22	-87.95	-84.10	-87.58	-89.81	-105.05	-88.40	-92.09
2.50	-79.86	-78.13	-76.64	-82.22	-89.46	-92.16	-91.21	-91.28
3.00	-78.12	-81.10	-82.60	-77.40	-89.92	-88.44	-91.63	-87.99
3.50	-79.65	-74.58	-71.44	-77.50	-81.06	-89.80	-91.15	-78.61
4.00	-80.48	-72.06	-71.03	-65.03	-85.30	-92.27	-91.90	-85.26
4.50	-84.03	-71.63	-67.82	-58.94	-90.15	-91.58	-89.23	-83.96
5.00	-78.63	-82.12	-71.90	-65.74	-86.21	-88.29	-86.93	-85.76
5.50	-77.85	-67.09	-63.54	-64.09	-92.51	-118.71	-93.10	-87.60
6.00	-76.36	-72.19	-69.44	-63.50	-82.23	-105.61	-91.61	-89.18
6.50	-69.47	-75.44	-72.08	-62.15	-76.97	-92.80	-109.94	-80.19
7.00	-70.89	-73.15	-71.10	-60.39	-75.80	-88.97	-93.94	-73.34
7.50	-83.38	-73.48	-69.14	-65.20	-77.13	-97.71	-94.41	-81.92
8.00	-76.53	-71.09	-70.92	-62.87	-85.46	-93.78	-97.69	-86.21
8.50	-80.47	-71.69	-67.64	-65.40	-83.50	-86.33	-101.97	-82.44
9.00	-70.13	-68.31	-66.35	-67.63	-80.81	-86.95	-85.94	-88.63
9.50	-79.55	-73.41	-70.32	-62.25	-78.10	-79.61	-97.34	-82.33
10.00	-64.28	-70.42	-81.37	-62.79	-69.60	-81.65	-81.43	-77.48
10.50	-72.25	-64.57	-66.96	-65.03	-73.79	-84.15	-77.69	-68.93
11.00	-78.50	-67.07	-62.53	-64.62	-76.55	-82.36	-81.69	-75.76
11.50	-78.43	-68.80	-70.12	-67.49	-79.03	-94.80	-81.46	-78.66
12.00	-76.37	-72.17	-74.92	-68.05	-78.72	-81.16	-83.66	-86.40
12.50	-72.68	-67.37	-67.70	-57.66	-76.03	-84.32	-91.54	-83.44
13.00	-71.38	-64.67	-66.20	-57.17	-70.80	-92.01	-86.81	-89.31
13.50	-69.02	-69.94	-83.17	-68.20	-71.54	-84.88	-88.33	-77.13
14.00	-68.76	-78.69	-76.27	-65.81	-79.27	-80.02	-87.80	-74.58
14.50	-78.97	-66.15	-74.74	-62.54	-78.77	-80.18	-103.43	-83.65
15.00	-71.71	-66.68	-67.31	-59.72	-84.86	-88.34	-89.53	-83.11
15.50	-75.52	-73.04	-69.44	-58.80	-75.80	-85.79	-76.62	-83.11
16.00	-65.16	-79.15	-77.32	-55.37	-68.06	-83.77	-77.14	-85.74
16.50	-65.22	-82.85	-77.55	-55.10	-65.28	-83.65	-92.33	-75.05
17.00	-70.49	-84.06	-78.43	-62.68	-74.05	-88.24	-84.79	-74.49
17.50	-71.16	-88.32	-77.75	-64.86	-78.75	-85.69	-104.03	-85.96
18.00	-81.72	-73.73	-72.83	-62.06	-74.00	-84.67	-85.57	-85.56
18.50	-79.00	-73.72	-93.80	-66.07	-75.50	-85.06	-84.63	-77.98
19.00	-67.85	-67.98	-71.46	-82.76	-73.12	-77.73	-91.67	-72.96
19.50	-63.06	-68.62	-71.86	-75.73	-66.85	-74.24	-78.87	-90.51
20.00	-70.92	-70.11	-72.47	-79.33	-72.70	-86.13	-81.31	-70.69

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