

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = 0°C.

Freq. (GHz)	Attenuation relative to Insertion Loss (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-0.51	-5.22	-10.67	-20.92	-31.52	-36.46	-41.23	-52.01	-61.90	-65.05
0.10	-0.51	-5.23	-10.67	-20.93	-31.53	-36.49	-41.28	-52.01	-61.91	-65.23
0.50	-0.52	-5.24	-10.68	-20.96	-31.55	-36.52	-41.30	-52.03	-61.93	-65.25
2.00	-0.53	-5.28	-10.72	-21.06	-31.64	-36.63	-41.44	-52.15	-62.07	-65.38
3.50	-0.50	-5.21	-10.66	-21.07	-31.65	-36.67	-41.51	-52.19	-62.15	-65.44
5.00	-0.46	-5.10	-10.54	-20.98	-31.57	-36.63	-41.50	-52.16	-62.15	-65.42
6.50	-0.43	-5.00	-10.35	-20.80	-31.40	-36.50	-41.42	-52.03	-62.07	-65.33
8.00	-0.43	-5.01	-10.20	-20.62	-31.22	-36.38	-41.37	-51.97	-62.04	-65.31
9.50	-0.49	-5.19	-10.25	-20.68	-31.23	-36.44	-41.50	-52.08	-62.18	-65.40
11.00	-0.56	-5.43	-10.50	-21.00	-31.46	-36.76	-41.87	-52.44	-62.64	-65.83
12.50	-0.59	-5.51	-10.69	-21.31	-31.69	-37.08	-42.25	-52.80	-63.11	-66.26
14.00	-0.56	-5.44	-10.71	-21.44	-31.79	-37.26	-42.48	-53.03	-63.47	-66.59
15.50	-0.51	-5.35	-10.65	-21.42	-31.81	-37.35	-42.60	-53.16	-63.85	-66.96
17.00	-0.49	-5.31	-10.66	-21.33	-31.79	-37.34	-42.59	-53.13	-63.86	-66.89
18.50	-0.46	-5.22	-10.60	-21.13	-31.65	-37.22	-42.54	-53.12	-64.14	-67.22
20.00	-0.45	-5.06	-10.34	-20.72	-31.31	-36.94	-42.43	-53.24	-64.50	-67.68
21.50	-0.50	-5.01	-10.22	-20.50	-31.05	-36.69	-42.29	-52.97	-63.92	-66.89
23.00	-0.53	-5.06	-10.33	-20.53	-31.00	-36.65	-42.26	-52.80	-63.78	-66.73
24.50	-0.52	-5.06	-10.40	-20.59	-31.03	-36.74	-42.42	-53.10	-64.05	-66.97
26.25	-0.51	-5.04	-10.43	-20.58	-30.99	-36.73	-42.40	-53.06	-64.11	-66.93
28.00	-0.50	-5.01	-10.48	-20.54	-30.97	-36.72	-42.40	-53.21	-64.59	-67.51
29.75	-0.45	-5.03	-10.60	-20.61	-31.06	-36.77	-42.34	-53.15	-64.32	-67.04
31.50	-0.39	-5.16	-10.78	-20.87	-31.34	-36.99	-42.48	-53.42	-65.08	-67.92
33.25	-0.39	-4.98	-10.56	-20.68	-31.20	-36.84	-42.30	-53.03	-64.35	-67.27
35.00	-0.41	-4.75	-10.33	-20.35	-30.95	-36.59	-42.13	-52.80	-64.07	-66.74
36.75	-0.45	-4.60	-10.12	-19.99	-30.65	-36.29	-41.84	-52.18	-63.33	-65.88
38.50	-0.51	-4.68	-9.85	-19.70	-30.23	-35.88	-41.28	-51.57	-62.25	-64.99
40.00	-0.56	-4.98	-9.83	-19.83	-30.18	-35.83	-41.12	-51.41	-61.77	-64.47
41.50	-0.58	-5.14	-9.98	-19.98	-30.10	-35.76	-40.99	-50.91	-60.92	-63.27
43.00	-0.51	-5.02	-10.22	-20.16	-30.14	-35.85	-41.22	-51.05	-60.71	-63.13
44.50	-0.43	-4.97	-10.60	-20.76	-30.76	-36.48	-41.76	-51.63	-61.69	-64.14
46.00	-0.39	-4.99	-10.80	-21.35	-31.68	-37.48	-42.52	-52.31	-61.38	-63.72
47.50	-0.39	-4.95	-10.64	-21.28	-31.85	-37.64	-42.59	-52.28	-61.36	-63.84
49.00	-0.39	-4.88	-10.44	-20.89	-31.68	-37.46	-42.50	-52.06	-60.90	-63.22
50.50	-0.41	-4.85	-10.03	-20.35	-31.10	-36.82	-41.93	-51.57	-60.01	-62.07
52.00	-0.46	-5.05	-9.77	-20.33	-30.75	-36.39	-41.52	-50.99	-59.13	-61.32
53.50	-0.56	-5.45	-9.77	-20.62	-30.60	-36.06	-41.16	-50.52	-58.32	-60.28
55.00	-0.63	-5.76	-10.02	-20.88	-30.57	-36.13	-41.22	-51.13	-58.96	-61.37
56.50	-0.63	-5.77	-10.34	-21.16	-30.83	-36.52	-41.90	-52.08	-59.57	-62.11
58.00	-0.55	-5.64	-10.57	-21.32	-31.27	-37.08	-42.65	-53.06	-60.31	-62.75
59.50	-0.47	-5.57	-10.80	-21.45	-31.77	-37.57	-43.43	-54.20	-61.83	-64.13
61.00	-0.44	-5.60	-10.86	-21.47	-32.21	-38.07	-44.37	-55.23	-61.22	-63.46
62.50	-0.41	-5.55	-10.74	-21.13	-32.10	-37.95	-44.46	-55.95	-61.14	-63.38
64.00	-0.39	-5.41	-10.58	-20.57	-31.57	-37.47	-44.39	-56.61	-60.35	-62.54
65.50	-0.39	-5.02	-10.12	-19.80	-30.51	-36.45	-43.90	-57.48	-58.27	-60.34
67.00	-0.46	-4.67	-9.67	-19.24	-29.53	-35.46	-43.09	-55.19	-55.87	-57.17

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = 0°C.

Freq. (GHz)	Attenuation accuracy relative to nominal attenuation setting (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-0.01	-0.22	-0.67	-0.92	-1.52	-1.46	-1.23	-2.01	-1.90	-2.05
0.10	-0.01	-0.23	-0.67	-0.93	-1.53	-1.49	-1.28	-2.01	-1.91	-2.23
0.50	-0.02	-0.24	-0.68	-0.96	-1.55	-1.52	-1.30	-2.03	-1.93	-2.25
2.00	-0.03	-0.28	-0.72	-1.06	-1.64	-1.63	-1.44	-2.15	-2.07	-2.38
3.50	0.00	-0.21	-0.66	-1.07	-1.65	-1.67	-1.51	-2.19	-2.15	-2.44
5.00	0.04	-0.10	-0.54	-0.98	-1.57	-1.63	-1.50	-2.16	-2.15	-2.42
6.50	0.07	0.00	-0.35	-0.80	-1.40	-1.50	-1.42	-2.03	-2.07	-2.33
8.00	0.07	-0.01	-0.20	-0.62	-1.22	-1.38	-1.37	-1.97	-2.04	-2.31
9.50	0.01	-0.19	-0.25	-0.68	-1.23	-1.44	-1.50	-2.08	-2.18	-2.40
11.00	-0.06	-0.43	-0.50	-1.00	-1.46	-1.76	-1.87	-2.44	-2.64	-2.83
12.50	-0.09	-0.51	-0.69	-1.31	-1.69	-2.08	-2.25	-2.80	-3.11	-3.26
14.00	-0.06	-0.44	-0.71	-1.44	-1.79	-2.26	-2.48	-3.03	-3.47	-3.59
15.50	-0.01	-0.35	-0.65	-1.42	-1.81	-2.35	-2.60	-3.16	-3.85	-3.96
17.00	0.01	-0.31	-0.66	-1.33	-1.79	-2.34	-2.59	-3.13	-3.86	-3.89
18.50	0.04	-0.22	-0.60	-1.13	-1.65	-2.22	-2.54	-3.12	-4.14	-4.22
20.00	0.05	-0.06	-0.34	-0.72	-1.31	-1.94	-2.43	-3.24	-4.50	-4.68
21.50	0.00	-0.01	-0.22	-0.50	-1.05	-1.69	-2.29	-2.97	-3.92	-3.89
23.00	-0.03	-0.06	-0.33	-0.53	-1.00	-1.65	-2.26	-2.80	-3.78	-3.73
24.50	-0.02	-0.06	-0.40	-0.59	-1.03	-1.74	-2.42	-3.10	-4.05	-3.97
26.25	-0.01	-0.04	-0.43	-0.58	-0.99	-1.73	-2.40	-3.06	-4.11	-3.93
28.00	0.00	-0.01	-0.48	-0.54	-0.97	-1.72	-2.40	-3.21	-4.59	-4.51
29.75	0.05	-0.03	-0.60	-0.61	-1.06	-1.77	-2.34	-3.15	-4.32	-4.04
31.50	0.11	-0.16	-0.78	-0.87	-1.34	-1.99	-2.48	-3.42	-5.08	-4.92
33.25	0.11	0.02	-0.56	-0.68	-1.20	-1.84	-2.30	-3.03	-4.35	-4.27
35.00	0.09	0.25	-0.33	-0.35	-0.95	-1.59	-2.13	-2.80	-4.07	-3.74
36.75	0.05	0.40	-0.12	0.01	-0.65	-1.29	-1.84	-2.18	-3.33	-2.88
38.50	-0.01	0.32	0.15	0.30	-0.23	-0.88	-1.28	-1.57	-2.25	-1.99
40.00	-0.06	0.02	0.17	0.17	-0.18	-0.83	-1.12	-1.41	-1.77	-1.47
41.50	-0.08	-0.14	0.02	0.02	-0.10	-0.76	-0.99	-0.91	-0.92	-0.27
43.00	-0.01	-0.02	-0.22	-0.16	-0.14	-0.85	-1.22	-1.05	-0.71	-0.13
44.50	0.07	0.03	-0.60	-0.76	-0.76	-1.48	-1.76	-1.63	-1.69	-1.14
46.00	0.11	0.01	-0.80	-1.35	-1.68	-2.48	-2.52	-2.31	-1.38	-0.72
47.50	0.11	0.05	-0.64	-1.28	-1.85	-2.64	-2.59	-2.28	-1.36	-0.84
49.00	0.11	0.12	-0.44	-0.89	-1.68	-2.46	-2.50	-2.06	-0.90	-0.22
50.50	0.09	0.15	-0.03	-0.35	-1.10	-1.82	-1.93	-1.57	-0.01	0.93
52.00	0.04	-0.05	0.23	-0.33	-0.75	-1.39	-1.52	-0.99	0.87	1.68
53.50	-0.06	-0.45	0.23	-0.62	-0.60	-1.06	-1.16	-0.52	1.68	2.72
55.00	-0.13	-0.76	-0.02	-0.88	-0.57	-1.13	-1.22	-1.13	1.04	1.63
56.50	-0.13	-0.77	-0.34	-1.16	-0.83	-1.52	-1.90	-2.08	0.43	0.89
58.00	-0.05	-0.64	-0.57	-1.32	-1.27	-2.08	-2.65	-3.06	-0.31	0.25
59.50	0.03	-0.57	-0.80	-1.45	-1.77	-2.57	-3.43	-4.20	-1.83	-1.13
61.00	0.06	-0.60	-0.86	-1.47	-2.21	-3.07	-4.37	-5.23	-1.22	-0.46
62.50	0.09	-0.55	-0.74	-1.13	-2.10	-2.95	-4.46	-5.95	-1.14	-0.38
64.00	0.11	-0.41	-0.58	-0.57	-1.57	-2.47	-4.39	-6.61	-0.35	0.46
65.50	0.11	-0.02	-0.12	0.20	-0.51	-1.45	-3.90	-7.48	1.73	2.66
67.00	0.04	0.33	0.33	0.76	0.47	-0.46	-3.09	-5.19	4.13	5.83

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = 0°C.

Freq. (GHz)	Return Loss In (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-14.84	-17.94	-17.93	-38.16	-30.88	-30.81	-40.38	-42.14	-29.93	-30.09
0.10	-14.56	-17.70	-17.73	-39.12	-30.26	-31.37	-38.27	-43.15	-30.54	-30.71
0.50	-14.29	-17.08	-17.36	-32.91	-28.96	-30.62	-32.37	-33.66	-29.92	-30.07
2.00	-14.44	-14.76	-15.85	-24.31	-26.39	-24.95	-24.29	-23.92	-24.75	-24.83
3.50	-17.96	-15.25	-15.73	-24.03	-27.37	-23.10	-22.45	-21.67	-22.83	-22.90
5.00	-22.79	-17.74	-15.95	-24.85	-27.50	-22.65	-21.04	-20.27	-22.26	-22.32
6.50	-18.47	-20.52	-16.58	-24.82	-27.03	-22.39	-19.68	-18.98	-22.00	-22.05
8.00	-13.14	-15.86	-16.26	-23.37	-26.07	-22.07	-18.32	-17.70	-21.60	-21.65
9.50	-11.03	-12.25	-14.84	-21.19	-24.98	-20.95	-16.97	-16.36	-20.45	-20.49
11.00	-11.41	-11.20	-13.58	-19.67	-24.07	-19.31	-15.81	-15.15	-18.94	-18.96
12.50	-13.45	-12.12	-13.26	-20.66	-25.28	-18.81	-15.62	-14.85	-18.26	-18.27
14.00	-16.35	-14.73	-13.84	-24.07	-27.05	-18.64	-15.87	-14.95	-17.96	-17.95
15.50	-19.75	-18.88	-15.38	-32.55	-26.54	-18.73	-17.13	-15.91	-18.14	-18.12
17.00	-20.57	-20.33	-15.29	-25.32	-23.47	-20.85	-20.27	-18.51	-20.42	-20.39
18.50	-17.42	-16.98	-14.79	-21.57	-21.46	-27.86	-19.52	-18.26	-28.98	-28.88
20.00	-11.79	-12.52	-14.70	-21.41	-21.40	-35.17	-15.53	-14.75	-35.70	-35.69
21.50	-10.74	-11.30	-13.49	-20.87	-22.67	-23.92	-13.17	-12.45	-23.07	-23.08
23.00	-12.48	-12.36	-12.46	-19.92	-23.88	-19.56	-11.77	-11.08	-18.76	-18.75
24.50	-15.33	-15.00	-13.29	-21.65	-24.28	-17.68	-11.43	-10.73	-17.08	-17.07
26.25	-20.08	-19.25	-16.70	-32.17	-24.38	-18.01	-12.17	-11.40	-17.35	-17.33
28.00	-31.59	-27.44	-23.75	-28.69	-21.72	-17.45	-12.19	-11.44	-17.01	-16.99
29.75	-23.01	-26.84	-27.12	-19.16	-18.35	-16.95	-13.37	-12.61	-17.02	-17.00
31.50	-27.36	-35.75	-25.47	-17.39	-18.53	-19.90	-16.07	-15.02	-20.68	-20.67
33.25	-17.65	-21.38	-27.87	-20.76	-23.38	-29.54	-14.74	-13.78	-30.85	-30.80
35.00	-23.02	-20.71	-21.84	-27.55	-36.18	-27.96	-12.52	-11.87	-26.74	-26.71
36.75	-25.12	-29.04	-21.35	-30.22	-27.46	-21.85	-11.44	-10.99	-21.61	-21.59
38.50	-14.86	-16.56	-19.01	-21.42	-23.13	-20.58	-11.75	-11.41	-20.88	-20.88
40.00	-13.63	-14.04	-17.03	-21.68	-26.83	-23.64	-12.19	-11.85	-23.68	-23.66
41.50	-11.58	-11.38	-13.43	-24.65	-26.95	-22.17	-10.92	-10.67	-21.84	-21.82
43.00	-9.75	-9.43	-10.43	-17.98	-19.08	-17.06	-9.65	-9.54	-17.25	-17.24
44.50	-11.51	-10.84	-10.54	-16.19	-17.23	-15.70	-9.78	-9.79	-15.95	-15.95
46.00	-16.17	-15.09	-12.45	-17.38	-17.89	-16.26	-10.38	-10.44	-16.50	-16.50
47.50	-17.03	-18.29	-14.89	-19.31	-19.23	-17.25	-10.72	-10.78	-17.40	-17.40
49.00	-13.36	-14.53	-16.11	-18.84	-18.79	-16.72	-10.50	-10.58	-16.86	-16.86
50.50	-11.46	-11.42	-14.26	-15.26	-16.45	-14.90	-10.75	-10.89	-15.10	-15.10
52.00	-14.53	-13.19	-13.08	-12.61	-14.08	-13.54	-12.89	-13.15	-13.81	-13.82
53.50	-22.36	-24.11	-17.66	-12.81	-13.22	-13.71	-19.42	-20.11	-13.91	-13.92
55.00	-21.75	-20.88	-29.62	-14.67	-13.57	-14.93	-27.04	-26.70	-15.01	-15.01
56.50	-17.54	-16.94	-18.05	-15.66	-14.26	-16.25	-19.18	-18.76	-16.18	-16.18
58.00	-16.10	-16.39	-14.77	-14.96	-14.42	-16.61	-14.65	-14.42	-16.57	-16.57
59.50	-19.18	-18.68	-15.94	-15.61	-15.47	-17.23	-11.61	-11.43	-17.05	-17.04
61.00	-15.74	-16.28	-18.64	-18.51	-17.77	-17.94	-10.39	-10.20	-17.52	-17.50
62.50	-11.51	-12.00	-13.43	-18.95	-18.66	-16.83	-9.62	-9.41	-16.45	-16.44
64.00	-9.75	-9.34	-8.96	-13.88	-15.51	-13.60	-8.54	-8.36	-13.53	-13.53
65.50	-8.94	-8.69	-7.71	-10.39	-11.51	-10.63	-8.20	-8.13	-10.81	-10.82
67.00	-8.77	-9.22	-9.43	-9.92	-9.47	-9.25	-9.25	-9.47	-9.57	-9.57

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = 0°C.

Freq. (GHz)	Return Loss Out (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-15.58	-33.60	-14.20	-30.73	-30.83	-30.88	-29.76	-31.39	-30.04	-30.04
0.10	-15.59	-33.90	-14.22	-30.90	-31.00	-31.05	-29.58	-31.17	-30.04	-30.05
0.50	-15.25	-30.72	-14.09	-28.88	-28.98	-29.01	-29.31	-30.65	-29.70	-29.70
2.00	-16.51	-30.15	-14.41	-26.19	-26.21	-26.18	-24.56	-25.27	-24.80	-24.80
3.50	-23.92	-28.12	-15.62	-27.52	-27.30	-27.28	-22.49	-23.11	-22.71	-22.71
5.00	-25.38	-23.07	-16.09	-27.87	-27.59	-27.62	-21.76	-22.29	-21.88	-21.88
6.50	-15.90	-20.22	-15.57	-26.73	-26.67	-26.71	-21.48	-21.96	-21.47	-21.47
8.00	-11.94	-18.79	-15.12	-25.81	-26.08	-26.09	-20.73	-21.12	-20.66	-20.66
9.50	-10.83	-19.67	-15.27	-25.69	-26.04	-26.01	-19.72	-19.97	-19.56	-19.56
11.00	-12.05	-24.28	-16.00	-26.97	-26.92	-26.89	-19.25	-19.37	-18.94	-18.94
12.50	-15.52	-33.40	-17.06	-29.54	-28.98	-29.02	-19.44	-19.41	-18.94	-18.94
14.00	-20.22	-29.33	-17.72	-29.73	-29.84	-29.88	-20.15	-19.95	-19.43	-19.43
15.50	-21.21	-27.54	-17.57	-26.01	-26.39	-26.35	-21.06	-20.70	-20.20	-20.20
17.00	-19.72	-24.63	-16.17	-21.82	-21.86	-21.84	-22.45	-21.95	-21.81	-21.81
18.50	-14.80	-22.07	-14.15	-19.27	-19.11	-19.12	-25.77	-25.44	-26.09	-26.09
20.00	-10.19	-17.31	-12.81	-18.08	-18.02	-18.03	-25.16	-25.77	-26.61	-26.61
21.50	-9.53	-16.06	-13.10	-18.65	-18.77	-18.76	-21.39	-21.71	-21.59	-21.59
23.00	-10.98	-17.53	-14.51	-20.00	-20.09	-20.08	-18.71	-18.77	-18.39	-18.39
24.50	-12.43	-19.74	-16.34	-21.58	-21.48	-21.50	-17.37	-17.28	-16.86	-16.86
26.25	-15.46	-24.81	-18.80	-23.36	-23.26	-23.28	-17.34	-17.13	-16.68	-16.68
28.00	-18.05	-25.00	-18.42	-21.92	-21.97	-21.95	-16.98	-16.73	-16.33	-16.33
29.75	-16.46	-19.22	-16.18	-18.05	-18.13	-18.12	-15.50	-15.30	-15.16	-15.16
31.50	-21.67	-18.50	-17.10	-16.24	-16.25	-16.26	-15.72	-15.60	-15.76	-15.76
33.25	-20.65	-18.14	-23.12	-17.73	-17.65	-17.65	-18.99	-19.00	-19.47	-19.47
35.00	-18.65	-18.13	-23.31	-21.32	-21.23	-21.22	-24.11	-24.28	-25.25	-25.25
36.75	-22.42	-18.45	-19.59	-25.18	-25.24	-25.23	-28.11	-28.18	-28.68	-28.68
38.50	-20.69	-17.77	-18.60	-23.78	-24.03	-24.03	-25.63	-25.82	-26.87	-26.87
40.00	-21.99	-18.18	-20.11	-21.42	-21.53	-21.55	-25.39	-26.01	-26.81	-26.81
41.50	-16.41	-22.78	-14.66	-20.49	-20.31	-20.32	-22.30	-22.24	-22.00	-22.01
43.00	-10.11	-18.02	-10.27	-17.33	-17.38	-17.39	-16.93	-16.73	-16.60	-16.60
44.50	-9.81	-15.94	-9.16	-15.63	-15.73	-15.73	-14.77	-14.65	-14.58	-14.58
46.00	-12.16	-16.57	-9.64	-15.42	-15.40	-15.39	-14.19	-14.14	-14.16	-14.16
47.50	-13.23	-16.63	-10.63	-16.02	-15.90	-15.90	-14.40	-14.40	-14.37	-14.37
49.00	-11.77	-14.97	-10.77	-15.24	-15.16	-15.16	-13.63	-13.65	-13.60	-13.60
50.50	-9.01	-11.58	-9.97	-12.52	-12.54	-12.55	-11.30	-11.34	-11.38	-11.38
52.00	-7.54	-8.99	-9.36	-9.94	-10.00	-10.00	-9.17	-9.22	-9.34	-9.34
53.50	-8.11	-8.30	-9.81	-8.96	-8.96	-8.96	-8.47	-8.53	-8.66	-8.66
55.00	-10.60	-9.00	-10.90	-9.09	-9.05	-9.05	-8.84	-8.91	-8.99	-8.99
56.50	-11.28	-9.21	-10.99	-8.97	-8.95	-8.95	-9.04	-9.08	-9.18	-9.18
58.00	-10.08	-8.87	-10.44	-8.73	-8.74	-8.75	-9.16	-9.18	-9.28	-9.28
59.50	-10.70	-9.11	-10.52	-8.92	-8.95	-8.95	-9.78	-9.76	-9.82	-9.82
61.00	-13.17	-10.01	-11.33	-9.48	-9.49	-9.49	-10.62	-10.56	-10.61	-10.60
62.50	-14.62	-10.35	-11.88	-9.65	-9.63	-9.63	-10.86	-10.78	-10.79	-10.79
64.00	-13.78	-10.15	-12.19	-9.53	-9.51	-9.52	-10.51	-10.43	-10.42	-10.42
65.50	-10.90	-10.52	-12.78	-10.48	-10.50	-10.51	-10.87	-10.83	-10.73	-10.73
67.00	-9.90	-11.55	-12.21	-12.85	-12.90	-12.90	-12.25	-12.28	-11.88	-11.88

Typical Performance Data

Test Conditions: @ Temperature = 0°C.

Freq. (GHz)	I. Loss (dB)
0.01	-2.39
0.10	-2.38
0.50	-2.46
2.00	-2.58
3.50	-2.77
5.00	-3.05
6.50	-3.42
8.00	-3.78
9.50	-3.96
11.00	-3.91
12.50	-3.88
14.00	-4.00
15.50	-4.22
17.00	-4.50
18.50	-4.86
20.00	-5.40
21.50	-5.80
23.00	-5.85
24.50	-5.91
26.25	-6.10
28.00	-6.38
29.75	-6.69
31.50	-6.76
33.25	-7.11
35.00	-7.55
36.75	-8.10
38.50	-8.83
40.00	-9.29
41.50	-9.78
43.00	-10.50
44.50	-10.58
46.00	-10.40
47.50	-10.61
49.00	-10.93
50.50	-11.36
52.00	-11.79
53.50	-11.98
55.00	-12.04
56.50	-12.42
58.00	-12.95
59.50	-12.96
61.00	-12.92
62.50	-13.08
64.00	-13.44
65.50	-14.04
67.00	-14.37

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +25°C.

Freq. (GHz)	Attenuation relative to Insertion Loss (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-0.52	-5.20	-10.57	-20.76	-31.23	-36.10	-40.84	-51.40	-60.97	-64.29
0.10	-0.52	-5.21	-10.58	-20.77	-31.24	-36.12	-40.84	-51.43	-61.19	-64.48
0.50	-0.53	-5.22	-10.59	-20.80	-31.26	-36.14	-40.87	-51.46	-61.22	-64.51
2.00	-0.53	-5.25	-10.62	-20.89	-31.34	-36.25	-41.00	-51.57	-61.36	-64.63
3.50	-0.50	-5.18	-10.56	-20.89	-31.34	-36.28	-41.05	-51.60	-61.42	-64.68
5.00	-0.46	-5.07	-10.42	-20.79	-31.25	-36.22	-41.04	-51.57	-61.42	-64.67
6.50	-0.43	-4.97	-10.24	-20.61	-31.08	-36.10	-40.96	-51.44	-61.33	-64.57
8.00	-0.44	-4.99	-10.10	-20.45	-30.92	-35.99	-40.92	-51.39	-61.33	-64.54
9.50	-0.49	-5.18	-10.17	-20.54	-30.96	-36.08	-41.07	-51.53	-61.49	-64.69
11.00	-0.56	-5.40	-10.41	-20.84	-31.18	-36.38	-41.43	-51.86	-61.93	-65.09
12.50	-0.59	-5.47	-10.59	-21.13	-31.40	-36.68	-41.79	-52.22	-62.38	-65.52
14.00	-0.56	-5.40	-10.61	-21.25	-31.50	-36.88	-42.03	-52.45	-62.77	-65.87
15.50	-0.51	-5.31	-10.55	-21.23	-31.51	-36.95	-42.13	-52.57	-63.10	-66.20
17.00	-0.49	-5.26	-10.55	-21.14	-31.49	-36.94	-42.13	-52.56	-63.16	-66.18
18.50	-0.46	-5.19	-10.49	-20.94	-31.35	-36.83	-42.08	-52.56	-63.45	-66.54
20.00	-0.45	-5.03	-10.25	-20.55	-31.02	-36.55	-41.95	-52.60	-63.70	-66.84
21.50	-0.50	-4.97	-10.13	-20.31	-30.74	-36.28	-41.81	-52.36	-63.23	-66.21
23.00	-0.53	-5.03	-10.24	-20.36	-30.72	-36.28	-41.81	-52.27	-63.11	-66.08
24.50	-0.52	-5.03	-10.31	-20.41	-30.74	-36.35	-41.96	-52.51	-63.33	-66.22
26.25	-0.51	-4.99	-10.35	-20.39	-30.71	-36.36	-41.98	-52.57	-63.48	-66.29
28.00	-0.50	-4.97	-10.40	-20.39	-30.74	-36.40	-41.98	-52.74	-63.93	-66.82
29.75	-0.45	-5.02	-10.53	-20.47	-30.83	-36.44	-41.93	-52.58	-63.68	-66.44
31.50	-0.40	-5.11	-10.68	-20.69	-31.08	-36.66	-42.09	-52.85	-64.41	-67.38
33.25	-0.40	-4.94	-10.48	-20.50	-30.94	-36.50	-41.92	-52.54	-63.88	-66.65
35.00	-0.41	-4.71	-10.27	-20.17	-30.70	-36.27	-41.79	-52.38	-63.50	-66.10
36.75	-0.45	-4.56	-10.06	-19.84	-30.39	-36.00	-41.47	-51.86	-62.79	-65.43
38.50	-0.51	-4.68	-9.78	-19.59	-30.02	-35.60	-40.94	-51.25	-61.87	-64.42
40.00	-0.56	-4.96	-9.79	-19.72	-29.97	-35.57	-40.83	-51.07	-61.26	-63.83
41.50	-0.57	-5.10	-9.93	-19.84	-29.89	-35.49	-40.75	-50.63	-60.43	-62.90
43.00	-0.51	-5.01	-10.19	-20.12	-30.03	-35.65	-40.91	-50.72	-60.52	-62.67
44.50	-0.43	-4.96	-10.55	-20.67	-30.64	-36.33	-41.57	-51.33	-61.40	-63.94
46.00	-0.39	-4.95	-10.75	-21.22	-31.48	-37.16	-42.17	-51.55	-60.62	-62.76
47.50	-0.38	-4.91	-10.60	-21.12	-31.65	-37.35	-42.35	-51.90	-61.00	-63.29
49.00	-0.39	-4.85	-10.36	-20.73	-31.44	-37.12	-42.19	-51.71	-60.22	-62.49
50.50	-0.42	-4.86	-9.98	-20.27	-30.93	-36.57	-41.64	-51.22	-59.49	-61.64
52.00	-0.47	-5.05	-9.74	-20.23	-30.55	-36.11	-41.26	-50.56	-58.56	-60.63
53.50	-0.56	-5.41	-9.75	-20.45	-30.33	-35.76	-40.85	-50.19	-57.78	-59.69
55.00	-0.64	-5.73	-10.01	-20.79	-30.44	-35.92	-41.06	-50.78	-58.55	-60.80
56.50	-0.63	-5.74	-10.32	-21.07	-30.69	-36.28	-41.63	-51.46	-59.23	-61.44
58.00	-0.54	-5.57	-10.54	-21.17	-31.10	-36.87	-42.50	-52.73	-59.87	-62.30
59.50	-0.47	-5.52	-10.75	-21.31	-31.62	-37.42	-43.23	-54.22	-61.28	-63.62
61.00	-0.44	-5.58	-10.86	-21.42	-32.11	-37.87	-43.91	-54.92	-60.72	-62.56
62.50	-0.41	-5.52	-10.72	-21.01	-31.96	-37.76	-44.32	-55.76	-60.88	-62.91
64.00	-0.38	-5.34	-10.56	-20.42	-31.36	-37.25	-44.06	-56.72	-60.00	-62.34
65.50	-0.40	-4.95	-10.08	-19.73	-30.39	-36.29	-43.66	-56.37	-57.89	-59.76
67.00	-0.47	-4.68	-9.70	-19.25	-29.37	-35.23	-43.31	-55.84	-55.17	-56.91

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +25°C.

Freq. (GHz)	Attenuation accuracy relative to nominal attenuation setting (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-0.02	-0.20	-0.57	-0.76	-1.23	-1.10	-0.84	-1.40	-0.97	-1.29
0.10	-0.02	-0.21	-0.58	-0.77	-1.24	-1.12	-0.84	-1.43	-1.19	-1.48
0.50	-0.03	-0.22	-0.59	-0.80	-1.26	-1.14	-0.87	-1.46	-1.22	-1.51
2.00	-0.03	-0.25	-0.62	-0.89	-1.34	-1.25	-1.00	-1.57	-1.36	-1.63
3.50	0.00	-0.18	-0.56	-0.89	-1.34	-1.28	-1.05	-1.60	-1.42	-1.68
5.00	0.04	-0.07	-0.42	-0.79	-1.25	-1.22	-1.04	-1.57	-1.42	-1.67
6.50	0.07	0.03	-0.24	-0.61	-1.08	-1.10	-0.96	-1.44	-1.33	-1.57
8.00	0.06	0.01	-0.10	-0.45	-0.92	-0.99	-0.92	-1.39	-1.33	-1.54
9.50	0.01	-0.18	-0.17	-0.54	-0.96	-1.08	-1.07	-1.53	-1.49	-1.69
11.00	-0.06	-0.40	-0.41	-0.84	-1.18	-1.38	-1.43	-1.86	-1.93	-2.09
12.50	-0.09	-0.47	-0.59	-1.13	-1.40	-1.68	-1.79	-2.22	-2.38	-2.52
14.00	-0.06	-0.40	-0.61	-1.25	-1.50	-1.88	-2.03	-2.45	-2.77	-2.87
15.50	-0.01	-0.31	-0.55	-1.23	-1.51	-1.95	-2.13	-2.57	-3.10	-3.20
17.00	0.01	-0.26	-0.55	-1.14	-1.49	-1.94	-2.13	-2.56	-3.16	-3.18
18.50	0.04	-0.19	-0.49	-0.94	-1.35	-1.83	-2.08	-2.56	-3.45	-3.54
20.00	0.05	-0.03	-0.25	-0.55	-1.02	-1.55	-1.95	-2.60	-3.70	-3.84
21.50	0.00	0.03	-0.13	-0.31	-0.74	-1.28	-1.81	-2.36	-3.23	-3.21
23.00	-0.03	-0.03	-0.24	-0.36	-0.72	-1.28	-1.81	-2.27	-3.11	-3.08
24.50	-0.02	-0.03	-0.31	-0.41	-0.74	-1.35	-1.96	-2.51	-3.33	-3.22
26.25	-0.01	0.01	-0.35	-0.39	-0.71	-1.36	-1.98	-2.57	-3.48	-3.29
28.00	0.00	0.03	-0.40	-0.39	-0.74	-1.40	-1.98	-2.74	-3.93	-3.82
29.75	0.05	-0.02	-0.53	-0.47	-0.83	-1.44	-1.93	-2.58	-3.68	-3.44
31.50	0.10	-0.11	-0.68	-0.69	-1.08	-1.66	-2.09	-2.85	-4.41	-4.38
33.25	0.10	0.06	-0.48	-0.50	-0.94	-1.50	-1.92	-2.54	-3.88	-3.65
35.00	0.09	0.29	-0.27	-0.17	-0.70	-1.27	-1.79	-2.38	-3.50	-3.10
36.75	0.05	0.44	-0.06	0.16	-0.39	-1.00	-1.47	-1.86	-2.79	-2.43
38.50	-0.01	0.32	0.22	0.41	-0.02	-0.60	-0.94	-1.25	-1.87	-1.42
40.00	-0.06	0.04	0.21	0.28	0.03	-0.57	-0.83	-1.07	-1.26	-0.83
41.50	-0.07	-0.10	0.07	0.16	0.11	-0.49	-0.75	-0.63	-0.43	0.10
43.00	-0.01	-0.01	-0.19	-0.12	-0.03	-0.65	-0.91	-0.72	-0.52	0.33
44.50	0.07	0.04	-0.55	-0.67	-0.64	-1.33	-1.57	-1.33	-1.40	-0.94
46.00	0.11	0.05	-0.75	-1.22	-1.48	-2.16	-2.17	-1.55	-0.62	0.24
47.50	0.12	0.09	-0.60	-1.12	-1.65	-2.35	-2.35	-1.90	-1.00	-0.29
49.00	0.11	0.15	-0.36	-0.73	-1.44	-2.12	-2.19	-1.71	-0.22	0.51
50.50	0.08	0.14	0.02	-0.27	-0.93	-1.57	-1.64	-1.22	0.51	1.36
52.00	0.03	-0.05	0.26	-0.23	-0.55	-1.11	-1.26	-0.56	1.44	2.37
53.50	-0.06	-0.41	0.25	-0.45	-0.33	-0.76	-0.85	-0.19	2.22	3.31
55.00	-0.14	-0.73	-0.01	-0.79	-0.44	-0.92	-1.06	-0.78	1.45	2.20
56.50	-0.13	-0.74	-0.32	-1.07	-0.69	-1.28	-1.63	-1.46	0.77	1.56
58.00	-0.04	-0.57	-0.54	-1.17	-1.10	-1.87	-2.50	-2.73	0.13	0.70
59.50	0.03	-0.52	-0.75	-1.31	-1.62	-2.42	-3.23	-4.22	-1.28	-0.62
61.00	0.06	-0.58	-0.86	-1.42	-2.11	-2.87	-3.91	-4.92	-0.72	0.44
62.50	0.09	-0.52	-0.72	-1.01	-1.96	-2.76	-4.32	-5.76	-0.88	0.09
64.00	0.12	-0.34	-0.56	-0.42	-1.36	-2.25	-4.06	-6.72	0.00	0.66
65.50	0.10	0.05	-0.08	0.27	-0.39	-1.29	-3.66	-6.37	2.11	3.24
67.00	0.03	0.32	0.30	0.75	0.63	-0.23	-3.31	-5.84	4.83	6.09

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +25°C.

Freq. (GHz)	Return Loss In (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-14.24	-17.12	-17.23	-41.72	-30.11	-31.41	-36.63	-49.64	-30.37	-30.55
0.10	-14.13	-17.04	-17.17	-41.09	-29.88	-31.58	-35.74	-45.38	-30.65	-30.83
0.50	-13.90	-16.51	-16.83	-33.55	-28.52	-31.08	-31.39	-33.87	-30.29	-30.45
2.00	-14.25	-14.65	-15.66	-24.75	-26.36	-25.34	-24.44	-24.28	-25.13	-25.21
3.50	-17.88	-15.27	-15.68	-24.12	-27.09	-23.18	-22.46	-21.78	-22.88	-22.95
5.00	-23.08	-18.04	-16.18	-24.83	-27.46	-22.41	-21.12	-20.34	-22.04	-22.10
6.50	-18.52	-20.35	-16.64	-25.44	-27.70	-22.80	-20.12	-19.42	-22.30	-22.35
8.00	-13.29	-15.94	-16.30	-23.55	-26.26	-22.18	-18.53	-17.92	-21.72	-21.77
9.50	-11.38	-12.60	-15.14	-21.66	-25.71	-21.15	-17.36	-16.74	-20.68	-20.71
11.00	-11.65	-11.50	-13.87	-20.54	-25.34	-20.10	-16.41	-15.74	-19.64	-19.67
12.50	-13.42	-12.20	-13.32	-21.00	-25.89	-19.38	-15.90	-15.15	-18.81	-18.82
14.00	-16.67	-15.05	-14.10	-24.06	-27.14	-18.79	-16.03	-15.11	-18.17	-18.17
15.50	-19.92	-19.06	-15.58	-33.61	-27.27	-19.13	-17.46	-16.22	-18.52	-18.51
17.00	-20.90	-20.63	-15.64	-26.55	-24.42	-21.31	-20.12	-18.43	-20.75	-20.72
18.50	-17.78	-17.39	-15.34	-22.41	-22.07	-27.10	-19.88	-18.53	-27.53	-27.45
20.00	-12.07	-12.76	-14.80	-21.40	-21.26	-36.48	-16.14	-15.32	-37.06	-37.12
21.50	-10.76	-11.33	-13.38	-20.56	-22.29	-24.16	-13.38	-12.67	-23.55	-23.57
23.00	-12.70	-12.60	-12.71	-20.31	-24.46	-20.01	-12.11	-11.40	-19.27	-19.27
24.50	-15.26	-14.92	-13.38	-22.11	-25.84	-18.63	-11.85	-11.13	-17.89	-17.88
26.25	-19.45	-18.61	-16.41	-28.22	-24.19	-17.76	-11.96	-11.22	-17.15	-17.14
28.00	-34.27	-31.83	-26.41	-25.73	-20.57	-17.02	-12.50	-11.75	-16.75	-16.73
29.75	-25.37	-28.76	-26.74	-19.39	-19.02	-18.00	-14.28	-13.44	-18.07	-18.06
31.50	-26.00	-40.19	-27.79	-18.32	-19.61	-21.17	-16.16	-15.11	-22.05	-22.05
33.25	-17.59	-20.86	-26.34	-21.23	-24.17	-32.06	-14.84	-13.87	-32.83	-32.80
35.00	-22.69	-19.79	-20.40	-31.11	-39.47	-25.95	-12.18	-11.56	-24.98	-24.94
36.75	-22.55	-26.47	-20.86	-27.55	-24.53	-20.44	-11.48	-11.07	-20.42	-20.41
38.50	-15.33	-16.95	-19.64	-21.41	-23.93	-21.52	-12.33	-11.99	-21.79	-21.78
40.00	-13.74	-14.16	-16.94	-23.08	-28.34	-23.99	-12.24	-11.92	-23.84	-23.82
41.50	-11.64	-11.44	-13.32	-23.17	-25.26	-21.38	-11.17	-10.95	-21.35	-21.35
43.00	-10.51	-10.18	-11.21	-19.33	-20.71	-18.39	-10.41	-10.30	-18.43	-18.42
44.50	-11.66	-11.04	-10.87	-17.34	-18.35	-16.62	-10.12	-10.12	-16.82	-16.81
46.00	-15.92	-14.91	-12.49	-17.82	-18.25	-16.58	-10.52	-10.58	-16.86	-16.86
47.50	-17.51	-18.92	-15.58	-19.85	-19.78	-17.73	-11.17	-11.26	-17.92	-17.92
49.00	-13.93	-15.09	-17.43	-19.08	-19.44	-17.33	-11.28	-11.40	-17.55	-17.55
50.50	-12.57	-12.37	-15.33	-15.60	-17.12	-15.72	-11.85	-12.04	-15.97	-15.97
52.00	-16.09	-14.59	-14.42	-13.58	-15.18	-14.75	-14.14	-14.44	-15.05	-15.06
53.50	-23.91	-25.07	-18.35	-13.73	-14.20	-14.68	-19.12	-19.76	-14.95	-14.95
55.00	-22.42	-21.72	-30.39	-14.90	-13.88	-15.18	-27.77	-27.67	-15.36	-15.37
56.50	-17.24	-16.75	-17.56	-15.87	-14.55	-16.61	-18.74	-18.35	-16.67	-16.68
58.00	-17.88	-18.18	-16.03	-16.61	-16.07	-18.66	-14.74	-14.57	-18.56	-18.56
59.50	-22.82	-22.21	-18.38	-17.25	-17.04	-19.50	-13.05	-12.86	-19.21	-19.20
61.00	-16.98	-17.44	-19.50	-17.85	-17.11	-17.81	-10.97	-10.79	-17.57	-17.57
62.50	-10.75	-11.16	-12.35	-16.76	-16.68	-15.18	-9.18	-9.03	-15.12	-15.12
64.00	-9.75	-9.27	-8.76	-13.16	-14.77	-13.11	-8.78	-8.65	-13.15	-13.16
65.50	-10.05	-9.89	-8.85	-11.51	-12.52	-11.71	-9.50	-9.46	-11.84	-11.84
67.00	-10.05	-10.55	-10.77	-11.48	-10.98	-10.70	-10.48	-10.73	-10.97	-10.97

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +25°C.

Freq. (GHz)	Return Loss Out (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-15.00	-31.82	-13.91	-29.89	-30.03	-30.11	-30.29	-31.99	-30.52	-30.52
0.10	-15.10	-32.37	-14.01	-30.35	-30.46	-30.51	-29.82	-31.43	-30.24	-30.24
0.50	-14.85	-30.01	-13.89	-28.53	-28.62	-28.63	-29.69	-31.06	-30.02	-30.02
2.00	-16.22	-30.21	-14.22	-26.00	-26.01	-25.98	-24.82	-25.53	-25.13	-25.13
3.50	-23.53	-28.49	-15.44	-27.29	-27.07	-27.04	-22.60	-23.21	-22.79	-22.79
5.00	-25.22	-22.87	-16.13	-27.84	-27.57	-27.61	-21.67	-22.19	-21.76	-21.76
6.50	-16.11	-20.42	-15.65	-27.19	-27.14	-27.18	-21.58	-22.06	-21.57	-21.57
8.00	-12.16	-19.12	-15.21	-26.35	-26.64	-26.65	-20.93	-21.32	-20.85	-20.85
9.50	-11.15	-20.23	-15.42	-26.37	-26.74	-26.71	-19.94	-20.20	-19.79	-19.79
11.00	-12.33	-25.38	-16.07	-28.39	-28.28	-28.27	-19.72	-19.84	-19.40	-19.40
12.50	-15.45	-36.93	-16.79	-31.90	-31.16	-31.23	-20.15	-20.13	-19.61	-19.62
14.00	-20.15	-30.67	-17.47	-31.50	-31.69	-31.75	-20.78	-20.60	-20.05	-20.05
15.50	-21.16	-28.13	-17.52	-26.45	-26.85	-26.82	-21.51	-21.16	-20.69	-20.70
17.00	-19.38	-25.45	-16.18	-22.25	-22.27	-22.26	-23.17	-22.64	-22.48	-22.48
18.50	-14.82	-22.53	-14.37	-19.71	-19.55	-19.56	-26.59	-26.21	-26.92	-26.92
20.00	-10.45	-17.67	-13.05	-18.34	-18.28	-18.30	-25.77	-26.38	-27.33	-27.33
21.50	-9.62	-16.08	-13.16	-18.64	-18.77	-18.77	-21.71	-22.07	-21.97	-21.97
23.00	-11.08	-17.58	-14.59	-20.07	-20.17	-20.17	-18.96	-19.03	-18.67	-18.67
24.50	-12.65	-20.05	-16.52	-22.09	-22.01	-22.02	-17.95	-17.87	-17.40	-17.40
26.25	-14.92	-23.67	-18.25	-23.27	-23.17	-23.20	-17.47	-17.27	-16.79	-16.79
28.00	-17.76	-23.40	-17.80	-20.89	-20.94	-20.94	-16.46	-16.24	-15.91	-15.91
29.75	-16.99	-19.35	-16.63	-18.12	-18.21	-18.21	-15.76	-15.57	-15.44	-15.44
31.50	-22.27	-19.33	-17.96	-16.92	-16.93	-16.94	-16.43	-16.32	-16.45	-16.45
33.25	-20.59	-18.48	-23.79	-18.19	-18.11	-18.12	-19.54	-19.58	-20.16	-20.17
35.00	-18.47	-18.74	-23.02	-22.76	-22.66	-22.65	-26.48	-26.73	-27.67	-27.69
36.75	-23.98	-19.44	-18.88	-26.68	-26.66	-26.65	-27.47	-27.33	-27.82	-27.83
38.50	-20.76	-17.60	-19.44	-23.18	-23.40	-23.43	-25.46	-25.74	-26.88	-26.88
40.00	-22.49	-19.33	-19.54	-22.58	-22.66	-22.68	-27.52	-28.31	-28.84	-28.85
41.50	-15.81	-25.13	-14.51	-21.90	-21.70	-21.70	-23.43	-23.24	-22.84	-22.84
43.00	-10.62	-19.10	-10.79	-18.40	-18.47	-18.47	-17.87	-17.63	-17.35	-17.35
44.50	-10.02	-16.13	-9.40	-15.81	-15.91	-15.91	-14.97	-14.83	-14.71	-14.71
46.00	-11.95	-16.10	-9.58	-15.01	-14.99	-14.99	-13.88	-13.83	-13.81	-13.81
47.50	-12.75	-15.69	-10.41	-15.13	-15.05	-15.05	-13.73	-13.73	-13.73	-13.74
49.00	-11.47	-14.18	-10.79	-14.57	-14.52	-14.54	-13.14	-13.17	-13.17	-13.17
50.50	-9.28	-11.63	-10.47	-12.66	-12.70	-12.72	-11.51	-11.56	-11.61	-11.61
52.00	-8.15	-9.59	-10.11	-10.62	-10.69	-10.70	-9.84	-9.90	-10.00	-10.00
53.50	-8.55	-8.77	-10.22	-9.43	-9.45	-9.45	-8.93	-9.01	-9.13	-9.13
55.00	-10.53	-9.00	-10.78	-9.08	-9.05	-9.07	-8.88	-8.96	-9.09	-9.10
56.50	-11.45	-9.41	-11.18	-9.16	-9.15	-9.17	-9.30	-9.36	-9.49	-9.49
58.00	-10.85	-9.59	-11.25	-9.44	-9.48	-9.49	-9.95	-9.98	-10.05	-10.06
59.50	-10.95	-9.52	-10.96	-9.36	-9.41	-9.42	-10.23	-10.22	-10.30	-10.31
61.00	-12.44	-9.70	-10.90	-9.24	-9.27	-9.28	-10.33	-10.29	-10.39	-10.39
62.50	-13.82	-9.99	-11.41	-9.35	-9.33	-9.35	-10.50	-10.45	-10.51	-10.51
64.00	-14.11	-10.71	-12.80	-10.10	-10.09	-10.11	-11.07	-11.01	-11.00	-11.01
65.50	-11.93	-11.85	-14.39	-11.89	-11.93	-11.95	-12.29	-12.25	-12.11	-12.11
67.00	-11.00	-12.66	-13.55	-14.05	-14.12	-14.17	-13.58	-13.66	-13.32	-13.33

Typical Performance Data

Test Conditions: @ Temperature = +25°C.

Freq. (GHz)	I. Loss (dB)
0.01	-2.51
0.10	-2.52
0.50	-2.61
2.00	-2.75
3.50	-2.96
5.00	-3.25
6.50	-3.63
8.00	-3.98
9.50	-4.14
11.00	-4.11
12.50	-4.11
14.00	-4.23
15.50	-4.46
17.00	-4.74
18.50	-5.10
20.00	-5.65
21.50	-6.08
23.00	-6.12
24.50	-6.20
26.25	-6.41
28.00	-6.67
29.75	-6.96
31.50	-7.06
33.25	-7.43
35.00	-7.88
36.75	-8.46
38.50	-9.19
40.00	-9.67
41.50	-10.23
43.00	-10.85
44.50	-10.98
46.00	-10.86
47.50	-10.98
49.00	-11.18
50.50	-11.56
52.00	-12.00
53.50	-12.30
55.00	-12.44
56.50	-12.86
58.00	-13.26
59.50	-13.30
61.00	-13.34
62.50	-13.55
64.00	-13.91
65.50	-14.27
67.00	-14.59

Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +50°C.

Freq. (GHz)	Attenuation relative to Insertion Loss (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-0.53	-5.18	-10.47	-20.60	-30.97	-35.80	-40.47	-51.01	-60.59	-64.14
0.10	-0.53	-5.19	-10.48	-20.61	-30.99	-35.81	-40.50	-50.99	-60.68	-63.96
0.50	-0.53	-5.20	-10.48	-20.64	-31.01	-35.84	-40.53	-51.03	-60.72	-63.98
2.00	-0.54	-5.22	-10.51	-20.73	-31.09	-35.94	-40.65	-51.13	-60.84	-64.11
3.50	-0.51	-5.14	-10.44	-20.72	-31.08	-35.96	-40.70	-51.15	-60.89	-64.14
5.00	-0.46	-5.02	-10.30	-20.60	-30.98	-35.90	-40.67	-51.10	-60.88	-64.11
6.50	-0.43	-4.94	-10.12	-20.42	-30.81	-35.77	-40.59	-50.98	-60.80	-64.02
8.00	-0.44	-4.96	-9.99	-20.28	-30.66	-35.67	-40.55	-50.93	-60.80	-64.00
9.50	-0.50	-5.14	-10.07	-20.38	-30.70	-35.77	-40.72	-51.08	-60.98	-64.16
11.00	-0.57	-5.36	-10.31	-20.69	-30.93	-36.08	-41.08	-51.44	-61.42	-64.57
12.50	-0.59	-5.43	-10.49	-20.97	-31.15	-36.38	-41.44	-51.79	-61.88	-65.00
14.00	-0.56	-5.36	-10.50	-21.08	-31.25	-36.56	-41.66	-52.01	-62.25	-65.33
15.50	-0.51	-5.27	-10.44	-21.05	-31.26	-36.63	-41.76	-52.14	-62.56	-65.65
17.00	-0.49	-5.22	-10.44	-20.95	-31.22	-36.61	-41.75	-52.09	-62.64	-65.65
18.50	-0.46	-5.14	-10.38	-20.75	-31.08	-36.49	-41.69	-52.08	-62.91	-66.00
20.00	-0.45	-4.99	-10.15	-20.37	-30.76	-36.22	-41.57	-52.13	-63.11	-66.22
21.50	-0.49	-4.94	-10.04	-20.15	-30.50	-35.98	-41.45	-51.93	-62.74	-65.72
23.00	-0.52	-4.99	-10.15	-20.20	-30.48	-35.98	-41.45	-51.85	-62.63	-65.57
24.50	-0.52	-4.99	-10.22	-20.25	-30.50	-36.05	-41.59	-52.06	-62.79	-65.65
26.25	-0.51	-4.95	-10.25	-20.22	-30.47	-36.05	-41.60	-52.13	-62.98	-65.81
28.00	-0.50	-4.93	-10.31	-20.22	-30.50	-36.09	-41.63	-52.28	-63.46	-66.33
29.75	-0.45	-4.97	-10.43	-20.30	-30.59	-36.13	-41.58	-52.14	-63.25	-65.93
31.50	-0.40	-5.06	-10.59	-20.52	-30.84	-36.37	-41.75	-52.52	-63.91	-66.77
33.25	-0.39	-4.89	-10.40	-20.35	-30.72	-36.22	-41.63	-52.22	-63.41	-66.05
35.00	-0.41	-4.67	-10.19	-20.02	-30.48	-36.00	-41.44	-51.98	-63.07	-65.73
36.75	-0.45	-4.53	-9.98	-19.69	-30.19	-35.72	-41.16	-51.46	-62.41	-65.13
38.50	-0.51	-4.64	-9.72	-19.45	-29.82	-35.35	-40.65	-50.94	-61.52	-63.99
40.00	-0.56	-4.92	-9.73	-19.57	-29.77	-35.33	-40.57	-50.75	-61.00	-63.46
41.50	-0.57	-5.05	-9.86	-19.70	-29.68	-35.24	-40.45	-50.40	-60.12	-62.41
43.00	-0.50	-4.96	-10.12	-19.99	-29.84	-35.43	-40.65	-50.41	-60.14	-62.43
44.50	-0.43	-4.92	-10.48	-20.55	-30.48	-36.08	-41.32	-51.04	-61.05	-63.75
46.00	-0.39	-4.93	-10.67	-21.06	-31.26	-36.89	-41.91	-51.32	-60.15	-62.45
47.50	-0.39	-4.89	-10.54	-20.99	-31.48	-37.15	-42.06	-51.55	-60.63	-63.11
49.00	-0.39	-4.82	-10.31	-20.59	-31.28	-36.89	-41.85	-51.33	-59.89	-62.19
50.50	-0.42	-4.82	-9.94	-20.15	-30.76	-36.34	-41.44	-50.73	-59.17	-61.09
52.00	-0.47	-5.01	-9.69	-20.08	-30.35	-35.88	-40.97	-50.24	-58.25	-60.25
53.50	-0.55	-5.36	-9.69	-20.32	-30.15	-35.50	-40.55	-49.71	-57.27	-59.28
55.00	-0.63	-5.67	-9.95	-20.64	-30.24	-35.69	-40.72	-50.38	-58.00	-60.25
56.50	-0.62	-5.68	-10.27	-20.91	-30.48	-36.07	-41.41	-51.10	-58.73	-60.95
58.00	-0.54	-5.52	-10.48	-21.01	-30.92	-36.58	-42.07	-52.50	-59.30	-61.68
59.50	-0.47	-5.47	-10.70	-21.15	-31.42	-37.15	-42.94	-53.93	-60.40	-62.95
61.00	-0.43	-5.52	-10.80	-21.23	-31.90	-37.58	-43.63	-54.56	-60.32	-62.80
62.50	-0.41	-5.45	-10.67	-20.85	-31.76	-37.56	-43.93	-55.33	-60.43	-62.38
64.00	-0.38	-5.28	-10.50	-20.28	-31.18	-37.06	-43.88	-56.26	-59.53	-61.74
65.50	-0.40	-4.91	-10.03	-19.61	-30.22	-36.08	-43.38	-56.61	-57.44	-59.36
67.00	-0.46	-4.64	-9.65	-19.13	-29.12	-34.92	-42.60	-54.24	-55.26	-56.22

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Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +50°C.

Freq. (GHz)	Attenuation accuracy relative to nominal attenuation setting (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-0.03	-0.18	-0.47	-0.60	-0.97	-0.80	-0.47	-1.01	-0.59	-1.14
0.10	-0.03	-0.19	-0.48	-0.61	-0.99	-0.81	-0.50	-0.99	-0.68	-0.96
0.50	-0.03	-0.20	-0.48	-0.64	-1.01	-0.84	-0.53	-1.03	-0.72	-0.98
2.00	-0.04	-0.22	-0.51	-0.73	-1.09	-0.94	-0.65	-1.13	-0.84	-1.11
3.50	-0.01	-0.14	-0.44	-0.72	-1.08	-0.96	-0.70	-1.15	-0.89	-1.14
5.00	0.04	-0.02	-0.30	-0.60	-0.98	-0.90	-0.67	-1.10	-0.88	-1.11
6.50	0.07	0.06	-0.12	-0.42	-0.81	-0.77	-0.59	-0.98	-0.80	-1.02
8.00	0.06	0.04	0.01	-0.28	-0.66	-0.67	-0.55	-0.93	-0.80	-1.00
9.50	0.00	-0.14	-0.07	-0.38	-0.70	-0.77	-0.72	-1.08	-0.98	-1.16
11.00	-0.07	-0.36	-0.31	-0.69	-0.93	-1.08	-1.08	-1.44	-1.42	-1.57
12.50	-0.09	-0.43	-0.49	-0.97	-1.15	-1.38	-1.44	-1.79	-1.88	-2.00
14.00	-0.06	-0.36	-0.50	-1.08	-1.25	-1.56	-1.66	-2.01	-2.25	-2.33
15.50	-0.01	-0.27	-0.44	-1.05	-1.26	-1.63	-1.76	-2.14	-2.56	-2.65
17.00	0.01	-0.22	-0.44	-0.95	-1.22	-1.61	-1.75	-2.09	-2.64	-2.65
18.50	0.04	-0.14	-0.38	-0.75	-1.08	-1.49	-1.69	-2.08	-2.91	-3.00
20.00	0.05	0.01	-0.15	-0.37	-0.76	-1.22	-1.57	-2.13	-3.11	-3.22
21.50	0.01	0.06	-0.04	-0.15	-0.50	-0.98	-1.45	-1.93	-2.74	-2.72
23.00	-0.02	0.01	-0.15	-0.20	-0.48	-0.98	-1.45	-1.85	-2.63	-2.57
24.50	-0.02	0.01	-0.22	-0.25	-0.50	-1.05	-1.59	-2.06	-2.79	-2.65
26.25	-0.01	0.05	-0.25	-0.22	-0.47	-1.05	-1.60	-2.13	-2.98	-2.81
28.00	0.00	0.07	-0.31	-0.22	-0.50	-1.09	-1.63	-2.28	-3.46	-3.33
29.75	0.05	0.03	-0.43	-0.30	-0.59	-1.13	-1.58	-2.14	-3.25	-2.93
31.50	0.10	-0.06	-0.59	-0.52	-0.84	-1.37	-1.75	-2.52	-3.91	-3.77
33.25	0.11	0.11	-0.40	-0.35	-0.72	-1.22	-1.63	-2.22	-3.41	-3.05
35.00	0.09	0.33	-0.19	-0.02	-0.48	-1.00	-1.44	-1.98	-3.07	-2.73
36.75	0.05	0.47	0.02	0.31	-0.19	-0.72	-1.16	-1.46	-2.41	-2.13
38.50	-0.01	0.36	0.28	0.55	0.18	-0.35	-0.65	-0.94	-1.52	-0.99
40.00	-0.06	0.08	0.27	0.43	0.23	-0.33	-0.57	-0.75	-1.00	-0.46
41.50	-0.07	-0.05	0.14	0.30	0.32	-0.24	-0.45	-0.40	-0.12	0.59
43.00	0.00	0.04	-0.12	0.01	0.16	-0.43	-0.65	-0.41	-0.14	0.57
44.50	0.07	0.08	-0.48	-0.55	-0.48	-1.08	-1.32	-1.04	-1.05	-0.75
46.00	0.11	0.07	-0.67	-1.06	-1.26	-1.89	-1.91	-1.32	-0.15	0.55
47.50	0.11	0.11	-0.54	-0.99	-1.48	-2.15	-2.06	-1.55	-0.63	-0.11
49.00	0.11	0.18	-0.31	-0.59	-1.28	-1.89	-1.85	-1.33	0.11	0.81
50.50	0.08	0.18	0.06	-0.15	-0.76	-1.34	-1.44	-0.73	0.83	1.91
52.00	0.03	-0.01	0.31	-0.08	-0.35	-0.88	-0.97	-0.24	1.75	2.75
53.50	-0.05	-0.36	0.31	-0.32	-0.15	-0.50	-0.55	0.29	2.73	3.72
55.00	-0.13	-0.67	0.05	-0.64	-0.24	-0.69	-0.72	-0.38	2.00	2.75
56.50	-0.12	-0.68	-0.27	-0.91	-0.48	-1.07	-1.41	-1.10	1.27	2.05
58.00	-0.04	-0.52	-0.48	-1.01	-0.92	-1.58	-2.07	-2.50	0.70	1.32
59.50	0.03	-0.47	-0.70	-1.15	-1.42	-2.15	-2.94	-3.93	-0.40	0.05
61.00	0.07	-0.52	-0.80	-1.23	-1.90	-2.58	-3.63	-4.56	-0.32	0.20
62.50	0.09	-0.45	-0.67	-0.85	-1.76	-2.56	-3.93	-5.33	-0.43	0.62
64.00	0.12	-0.28	-0.50	-0.28	-1.18	-2.06	-3.88	-6.26	0.47	1.26
65.50	0.10	0.09	-0.03	0.39	-0.22	-1.08	-3.38	-6.61	2.56	3.64
67.00	0.04	0.36	0.35	0.87	0.88	0.08	-2.60	-4.24	4.74	6.78

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Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +50°C.

Freq. (GHz)	Return Loss In (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-13.74	-16.44	-16.67	-46.11	-29.49	-32.05	-34.43	-51.95	-30.77	-30.95
0.10	-13.67	-16.40	-16.64	-43.42	-29.38	-32.07	-33.97	-44.37	-30.95	-31.14
0.50	-13.50	-15.97	-16.35	-33.72	-28.13	-31.44	-30.59	-33.59	-30.55	-30.71
2.00	-14.03	-14.49	-15.44	-24.77	-26.11	-25.34	-24.30	-24.24	-25.08	-25.16
3.50	-17.90	-15.35	-15.70	-24.28	-27.13	-23.18	-22.57	-21.90	-22.85	-22.91
5.00	-22.97	-18.05	-16.25	-25.19	-27.82	-22.56	-21.38	-20.59	-22.14	-22.20
6.50	-18.54	-20.12	-16.60	-25.78	-27.95	-23.06	-20.34	-19.65	-22.49	-22.54
8.00	-13.36	-15.94	-16.21	-23.75	-26.34	-22.42	-18.68	-18.08	-21.91	-21.96
9.50	-11.43	-12.67	-15.09	-21.72	-25.60	-21.26	-17.42	-16.80	-20.75	-20.78
11.00	-11.77	-11.64	-13.94	-20.50	-25.12	-20.03	-16.42	-15.74	-19.56	-19.58
12.50	-13.69	-12.45	-13.55	-21.16	-25.97	-19.37	-16.03	-15.26	-18.76	-18.78
14.00	-16.85	-15.24	-14.33	-24.38	-27.44	-18.90	-16.23	-15.28	-18.24	-18.24
15.50	-19.95	-19.13	-15.78	-33.71	-27.37	-19.26	-17.72	-16.43	-18.62	-18.60
17.00	-20.73	-20.45	-15.71	-26.32	-24.31	-21.54	-20.50	-18.74	-20.99	-20.96
18.50	-17.57	-17.20	-15.31	-22.40	-22.07	-27.96	-19.81	-18.51	-28.59	-28.50
20.00	-12.13	-12.81	-14.81	-21.59	-21.50	-36.19	-16.01	-15.20	-36.53	-36.48
21.50	-10.99	-11.55	-13.53	-20.85	-22.73	-24.00	-13.43	-12.71	-23.27	-23.29
23.00	-12.93	-12.86	-12.96	-20.73	-25.06	-20.15	-12.29	-11.56	-19.31	-19.31
24.50	-15.51	-15.18	-13.69	-22.72	-26.53	-18.87	-12.11	-11.35	-18.10	-18.09
26.25	-19.71	-18.78	-16.61	-29.77	-25.07	-18.23	-12.28	-11.51	-17.57	-17.55
28.00	-33.69	-29.57	-25.29	-27.04	-21.35	-17.50	-12.70	-11.93	-17.15	-17.13
29.75	-26.45	-31.06	-28.68	-20.12	-19.58	-18.29	-14.24	-13.39	-18.31	-18.29
31.50	-25.96	-42.71	-29.00	-18.73	-19.89	-21.13	-16.00	-14.98	-21.88	-21.87
33.25	-18.04	-21.43	-27.26	-21.36	-24.12	-30.28	-15.03	-14.06	-31.32	-31.31
35.00	-22.93	-20.34	-21.29	-29.62	-42.73	-26.97	-12.54	-11.89	-25.94	-25.90
36.75	-23.79	-28.17	-21.70	-28.51	-25.77	-21.18	-11.74	-11.31	-21.09	-21.08
38.50	-15.73	-17.41	-19.98	-22.18	-24.73	-21.90	-12.38	-12.02	-22.11	-22.10
40.00	-13.78	-14.21	-16.87	-23.47	-28.05	-23.56	-12.17	-11.86	-23.40	-23.39
41.50	-11.67	-11.48	-13.30	-22.70	-24.54	-20.92	-11.15	-10.94	-20.84	-20.84
43.00	-10.64	-10.30	-11.29	-18.95	-20.31	-18.11	-10.47	-10.37	-18.19	-18.19
44.50	-12.03	-11.38	-11.15	-17.27	-18.27	-16.59	-10.30	-10.31	-16.80	-16.80
46.00	-16.60	-15.56	-12.99	-18.03	-18.46	-16.77	-10.80	-10.87	-17.02	-17.02
47.50	-18.12	-19.60	-16.09	-20.34	-20.24	-18.11	-11.44	-11.53	-18.24	-18.24
49.00	-14.24	-15.41	-17.57	-19.57	-19.83	-17.62	-11.36	-11.48	-17.78	-17.78
50.50	-12.52	-12.36	-15.24	-15.83	-17.27	-15.78	-11.74	-11.92	-16.00	-16.00
52.00	-15.65	-14.28	-14.17	-13.57	-15.14	-14.64	-13.88	-14.18	-14.95	-14.96
53.50	-22.98	-23.91	-17.97	-13.64	-14.12	-14.55	-18.89	-19.55	-14.81	-14.82
55.00	-22.03	-21.56	-28.87	-14.79	-13.80	-15.05	-29.23	-29.21	-15.22	-15.24
56.50	-17.08	-16.60	-17.45	-15.76	-14.48	-16.46	-18.87	-18.48	-16.49	-16.50
58.00	-17.71	-17.98	-15.90	-16.55	-16.03	-18.52	-14.62	-14.46	-18.40	-18.40
59.50	-22.51	-21.92	-18.37	-17.45	-17.24	-19.52	-12.90	-12.73	-19.23	-19.22
61.00	-16.77	-17.27	-19.50	-18.41	-17.63	-18.09	-11.03	-10.86	-17.78	-17.77
62.50	-11.00	-11.38	-12.51	-17.22	-17.25	-15.54	-9.38	-9.25	-15.38	-15.39
64.00	-10.11	-9.64	-9.09	-13.54	-15.24	-13.49	-9.06	-8.94	-13.46	-13.47
65.50	-10.39	-10.22	-9.16	-11.84	-12.83	-11.98	-9.76	-9.74	-12.15	-12.16
67.00	-10.24	-10.73	-10.99	-11.62	-10.99	-10.72	-10.62	-10.89	-11.15	-11.16

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Programmable Attenuator

Typical Performance Data

Test Conditions: @ Temperature = +50°C.

Freq. (GHz)	Return Loss Out (dB)									
	0.5 dB	5 dB	10 dB	20 dB	30 dB	35 dB	40 dB	50 dB	60 dB	63 dB
0.01	-14.51	-30.47	-13.68	-29.25	-29.39	-29.44	-30.88	-32.58	-30.93	-30.92
0.10	-14.62	-31.01	-13.81	-29.78	-29.92	-29.96	-30.21	-31.83	-30.52	-30.52
0.50	-14.41	-29.12	-13.70	-28.10	-28.21	-28.24	-30.01	-31.38	-30.28	-30.28
2.00	-15.90	-30.08	-14.07	-25.81	-25.82	-25.80	-24.87	-25.56	-25.15	-25.16
3.50	-23.44	-28.57	-15.39	-27.32	-27.10	-27.09	-22.59	-23.19	-22.76	-22.76
5.00	-25.52	-23.03	-16.11	-28.27	-27.99	-28.02	-21.80	-22.32	-21.87	-21.87
6.50	-16.33	-20.76	-15.56	-27.64	-27.57	-27.61	-21.90	-22.39	-21.85	-21.85
8.00	-12.26	-19.30	-15.07	-26.45	-26.74	-26.75	-21.18	-21.57	-21.08	-21.08
9.50	-11.24	-20.27	-15.31	-26.36	-26.74	-26.70	-20.06	-20.32	-19.89	-19.90
11.00	-12.45	-25.32	-16.04	-28.22	-28.13	-28.09	-19.72	-19.84	-19.39	-19.39
12.50	-15.67	-36.23	-16.86	-31.64	-30.93	-30.98	-20.10	-20.08	-19.55	-19.55
14.00	-20.32	-30.36	-17.54	-31.24	-31.44	-31.48	-20.76	-20.58	-20.01	-20.01
15.50	-21.26	-28.04	-17.52	-26.36	-26.75	-26.71	-21.56	-21.21	-20.73	-20.73
17.00	-19.43	-25.34	-16.14	-22.18	-22.19	-22.18	-23.27	-22.74	-22.59	-22.59
18.50	-14.78	-22.40	-14.31	-19.66	-19.50	-19.52	-26.74	-26.39	-27.14	-27.14
20.00	-10.52	-17.67	-13.06	-18.41	-18.35	-18.37	-25.69	-26.32	-27.24	-27.24
21.50	-9.79	-16.30	-13.30	-18.87	-19.00	-18.99	-21.69	-22.02	-21.89	-21.89
23.00	-11.26	-17.91	-14.84	-20.47	-20.56	-20.54	-19.09	-19.15	-18.75	-18.75
24.50	-12.88	-20.52	-16.87	-22.64	-22.53	-22.55	-18.19	-18.09	-17.60	-17.60
26.25	-15.30	-24.64	-18.82	-24.12	-24.00	-24.02	-17.87	-17.66	-17.15	-17.15
28.00	-17.89	-24.48	-18.37	-21.77	-21.81	-21.79	-16.95	-16.72	-16.35	-16.35
29.75	-17.09	-20.04	-16.95	-18.69	-18.77	-18.76	-16.10	-15.89	-15.72	-15.73
31.50	-21.70	-19.77	-18.02	-17.22	-17.23	-17.24	-16.60	-16.47	-16.57	-16.58
33.25	-20.98	-18.84	-23.43	-18.35	-18.26	-18.27	-19.53	-19.56	-20.07	-20.08
35.00	-18.80	-18.77	-23.42	-22.47	-22.37	-22.36	-25.71	-25.92	-26.88	-26.89
36.75	-23.58	-19.23	-19.47	-26.21	-26.23	-26.22	-27.73	-27.67	-28.19	-28.20
38.50	-21.43	-17.86	-19.70	-23.59	-23.83	-23.83	-26.19	-26.50	-27.74	-27.74
40.00	-22.93	-19.68	-19.53	-22.96	-23.03	-23.03	-28.17	-29.00	-29.46	-29.47
41.50	-15.74	-25.44	-14.44	-21.99	-21.78	-21.78	-23.25	-23.04	-22.70	-22.70
43.00	-10.65	-18.94	-10.80	-18.32	-18.39	-18.39	-17.71	-17.48	-17.21	-17.22
44.50	-10.18	-16.15	-9.53	-15.84	-15.93	-15.93	-14.95	-14.82	-14.71	-14.71
46.00	-12.22	-16.23	-9.83	-15.18	-15.15	-15.15	-14.01	-13.96	-13.96	-13.96
47.50	-13.19	-16.03	-10.79	-15.52	-15.41	-15.41	-14.03	-14.04	-14.03	-14.03
49.00	-11.93	-14.69	-11.20	-15.09	-15.02	-15.02	-13.55	-13.57	-13.54	-13.55
50.50	-9.55	-11.96	-10.71	-13.00	-13.02	-13.02	-11.78	-11.82	-11.87	-11.87
52.00	-8.28	-9.74	-10.20	-10.75	-10.81	-10.81	-9.94	-10.00	-10.09	-10.10
53.50	-8.61	-8.84	-10.25	-9.49	-9.50	-9.50	-8.99	-9.05	-9.17	-9.18
55.00	-10.58	-9.10	-10.84	-9.18	-9.14	-9.14	-8.94	-9.02	-9.14	-9.15
56.50	-11.48	-9.49	-11.22	-9.24	-9.22	-9.22	-9.34	-9.40	-9.52	-9.53
58.00	-10.85	-9.62	-11.25	-9.47	-9.49	-9.49	-9.95	-9.98	-10.06	-10.06
59.50	-11.10	-9.64	-11.06	-9.46	-9.50	-9.49	-10.32	-10.31	-10.39	-10.39
61.00	-12.82	-10.00	-11.21	-9.51	-9.51	-9.51	-10.59	-10.56	-10.62	-10.63
62.50	-14.40	-10.41	-11.86	-9.73	-9.70	-9.70	-10.88	-10.82	-10.86	-10.87
64.00	-14.67	-11.17	-13.31	-10.52	-10.49	-10.49	-11.48	-11.42	-11.39	-11.39
65.50	-12.36	-12.26	-14.88	-12.29	-12.30	-12.30	-12.68	-12.64	-12.47	-12.47
67.00	-11.46	-13.12	-14.09	-14.55	-14.61	-14.59	-13.94	-14.07	-13.68	-13.70

NOTES:

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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 <https://www.minicircuits.com/terms/viewterm.html>



Typical Performance Data

Test Conditions: @ Temperature = +50°C.

Freq. (GHz)	I. Loss (dB)
0.01	-2.65
0.10	-2.65
0.50	-2.75
2.00	-2.90
3.50	-3.13
5.00	-3.43
6.50	-3.80
8.00	-4.16
9.50	-4.30
11.00	-4.27
12.50	-4.26
14.00	-4.39
15.50	-4.63
17.00	-4.93
18.50	-5.29
20.00	-5.82
21.50	-6.23
23.00	-6.28
24.50	-6.37
26.25	-6.59
28.00	-6.85
29.75	-7.14
31.50	-7.25
33.25	-7.61
35.00	-8.07
36.75	-8.65
38.50	-9.38
40.00	-9.88
41.50	-10.43
43.00	-11.03
44.50	-11.14
46.00	-10.99
47.50	-11.12
49.00	-11.35
50.50	-11.76
52.00	-12.23
53.50	-12.52
55.00	-12.67
56.50	-13.06
58.00	-13.46
59.50	-13.46
61.00	-13.49
62.50	-13.69
64.00	-14.06
65.50	-14.43
67.00	-14.79

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