

Not recommended for new designs.

Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

DAT-31R5-SN+

Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=-45degC

FREQUENCY (MHz)	STEP ATTENUATION* AT TTL CONTROL STATE (dB)							
	000000 THRU LOSS	000001 0.5 dB	000010 1.0 dB	000100 2.0 dB	001000 4.0 dB	010000 8.0 dB	100000 16 dB	111111 31.5 dB
0.5	1.14	0.54	1.04	2.07	4.11	8.09	16.09	31.70
1	1.14	0.54	1.04	2.07	4.10	8.08	16.08	31.71
5	1.14	0.56	1.06	2.07	4.11	8.08	16.09	31.69
10	1.15	0.55	1.04	2.09	4.11	8.10	16.09	31.71
50	1.16	0.54	1.05	2.08	4.11	8.09	16.09	31.72
100	1.20	0.55	1.05	2.07	4.10	8.07	16.08	31.67
200	1.25	0.53	1.04	2.04	4.08	8.05	16.06	31.64
300	1.25	0.55	1.04	2.06	4.12	8.10	16.09	31.66
400	1.25	0.55	1.05	2.08	4.14	8.11	16.10	31.67
500	1.29	0.54	1.04	2.08	4.11	8.10	16.09	31.57
600	1.29	0.56	1.06	2.10	4.16	8.12	16.11	31.51
700	1.29	0.55	1.06	2.11	4.17	8.15	16.13	31.51
800	1.30	0.55	1.05	2.12	4.18	8.16	16.14	31.41
900	1.32	0.55	1.06	2.15	4.18	8.16	16.13	31.26
1000	1.37	0.56	1.07	2.14	4.18	8.14	16.12	31.16
1100	1.44	0.55	1.05	2.14	4.16	8.13	16.10	30.96
1200	1.48	0.56	1.05	2.13	4.16	8.14	16.08	30.86
1300	1.53	0.53	1.04	2.12	4.13	8.10	16.05	30.76
1400	1.58	0.54	1.06	2.12	4.15	8.09	16.03	30.54
1500	1.65	0.56	1.05	2.11	4.13	8.08	16.01	30.41
1600	1.68	0.54	1.05	2.13	4.12	8.11	15.99	30.22
1700	1.68	0.55	1.06	2.15	4.19	8.14	16.03	30.18
1800	1.71	0.55	1.06	2.18	4.20	8.14	16.02	30.00
1900	1.77	0.54	1.06	2.18	4.20	8.13	16.01	29.81
2000	1.84	0.53	1.05	2.15	4.20	8.12	16.03	29.77
2100	1.92	0.55	1.07	2.17	4.19	8.13	16.00	29.61
2200	2.01	0.56	1.07	2.15	4.20	8.11	16.00	29.44
2300	2.09	0.56	1.07	2.17	4.16	8.11	16.00	29.41
2400	2.20	0.55	1.06	2.18	4.17	8.11	16.01	28.96
2500	2.32	0.56	1.05	2.15	4.11	8.04	15.88	28.36
2600	2.31	0.58	1.06	2.20	4.15	8.04	15.83	28.14
2700	2.38	0.54	1.05	2.16	4.12	8.01	15.88	28.40
2800	2.51	0.57	1.06	2.17	4.14	8.02	15.86	28.18
2900	2.66	0.57	1.07	2.17	4.13	7.98	15.76	27.86
3000	2.77	0.57	1.05	2.18	4.10	7.93	15.63	27.29
3200	2.79	0.60	1.07	2.24	4.14	7.94	15.47	26.85
3400	3.08	0.58	1.05	2.19	4.08	7.83	15.39	27.05
3600	3.59	0.59	1.03	2.15	4.00	7.71	15.43	27.61
3800	4.45	0.63	1.04	2.09	3.93	7.69	15.66	28.24
4000	4.73	0.57	1.06	2.07	3.87	7.67	15.40	26.82

* Step Attenuation above Thru Loss (TTL Logic 00000).



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Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

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Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=-45degC

FREQUENCY (MHz)	INPUT RETURN LOSS AT TTL CONTROL STATE							
	(dB)							
	000000 0 dB	000001 0.5 dB	000010 1.0 dB	000100 2.0 dB	001000 4.0 dB	010000 8.0 dB	100000 16 dB	111111 31.5 dB
0.5	18.33	20.43	22.33	20.25	23.09	28.91	32.02	26.51
1	18.35	20.45	22.35	20.27	23.11	28.94	32.03	26.52
5	18.38	20.50	22.39	20.31	23.15	28.97	32.04	26.50
10	18.37	20.48	22.38	20.30	23.14	28.99	32.01	26.49
50	18.31	20.38	22.26	20.20	22.96	28.59	32.71	26.88
100	18.35	20.38	22.18	20.13	22.80	28.10	33.80	27.41
200	18.14	20.12	21.81	19.92	22.49	27.26	32.96	27.40
300	18.11	20.12	21.80	20.19	22.99	28.05	29.37	25.44
400	18.44	20.58	22.40	20.80	23.92	29.76	27.83	24.27
500	18.60	20.80	22.71	21.09	24.40	30.80	27.50	24.01
600	18.74	20.97	22.94	21.37	24.81	31.42	26.95	23.68
700	18.98	21.30	23.33	21.80	25.47	32.42	26.24	23.17
800	19.27	21.67	23.77	22.19	26.12	33.28	25.75	22.85
900	19.42	21.88	24.04	22.55	26.68	33.66	25.16	22.45
1000	19.68	22.25	24.52	23.10	27.63	34.38	24.44	21.93
1100	19.99	22.65	25.09	23.59	28.60	35.61	24.01	21.62
1200	20.14	22.86	25.39	23.88	29.31	36.53	23.74	21.43
1300	20.27	22.97	25.63	24.08	29.69	37.10	23.67	21.41
1400	20.22	22.93	25.51	24.10	29.66	36.67	23.73	21.50
1500	20.15	22.79	25.27	24.06	29.47	34.98	23.70	21.51
1600	20.35	23.08	25.60	24.52	30.45	33.94	23.19	21.15
1700	20.89	23.84	26.56	25.63	32.65	32.56	22.36	20.50
1800	21.25	24.40	27.23	26.52	34.87	31.08	21.65	19.97
1900	21.45	24.68	27.70	27.13	36.63	30.10	21.20	19.59
2000	22.04	25.55	28.88	28.40	41.63	28.76	20.50	19.05
2100	22.74	26.60	30.65	30.21	53.90	27.27	19.76	18.39
2200	23.55	27.70	33.27	31.92	40.38	25.98	19.03	17.77
2300	24.36	28.75	36.88	33.03	34.41	24.72	18.34	17.21
2400	25.31	29.15	41.85	31.62	30.37	23.50	17.66	16.65
2500	26.19	28.05	35.06	28.37	26.98	22.26	16.98	16.08
2600	26.82	26.40	29.58	25.44	24.14	20.94	16.30	15.52
2700	25.61	24.21	26.29	23.17	22.21	19.85	15.70	15.00
2800	23.76	22.02	23.50	21.06	20.43	18.78	15.14	14.55
2900	22.02	20.18	21.26	19.35	18.88	17.73	14.53	14.04
3000	20.56	18.85	19.68	18.06	17.66	16.80	13.97	13.55
3200	17.88	16.51	17.25	16.01	15.87	15.48	13.10	12.78
3400	15.69	14.66	15.40	14.43	14.52	14.50	12.49	12.29
3600	13.85	13.02	13.65	12.95	13.11	13.34	11.78	11.71
3800	13.35	12.58	12.99	12.34	12.38	12.52	11.19	11.21
4000	13.51	12.75	12.93	12.31	12.16	12.12	10.80	10.86



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Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

DAT-31R5-SN+

Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=-45degC

FREQUENCY (MHz)	OUTPUT RETURN LOSS AT TTL CONTROL STATE (dB)							
	000000	000001	000010	000100	001000	010000	100000	111111
	0 dB	0.5 dB	1.0 dB	2.0 dB	4.0 dB	8.0 dB	16 dB	31.5 dB
0.5	18.34	19.39	19.71	25.93	36.87	55.97	37.22	26.14
1	18.35	19.38	19.71	25.90	36.71	54.75	37.00	26.22
5	18.39	19.42	19.76	25.98	36.86	56.10	37.14	26.19
10	18.37	19.42	19.74	25.95	36.82	55.59	37.14	26.20
50	18.28	19.31	19.62	25.62	35.53	47.52	35.59	26.73
100	18.18	19.17	19.47	25.27	34.12	41.67	33.99	27.35
200	18.09	19.06	19.37	24.70	30.83	33.31	31.85	26.60
300	18.26	19.32	19.66	24.95	29.58	30.44	32.04	24.35
400	18.53	19.68	20.10	25.74	29.95	29.78	32.96	23.27
500	18.96	20.16	20.62	26.77	30.46	29.41	33.51	22.69
600	19.35	20.63	21.11	27.77	31.02	29.28	34.34	22.39
700	19.79	21.16	21.68	28.74	30.55	28.36	33.38	21.81
800	19.83	21.24	21.79	28.79	29.93	27.76	32.72	21.51
900	20.11	21.57	22.16	29.23	29.26	27.09	31.94	21.15
1000	20.31	21.82	22.45	29.71	28.93	26.63	31.19	20.84
1100	20.44	22.07	22.75	30.47	28.76	26.23	30.52	20.53
1200	20.60	22.22	22.98	31.38	28.97	26.21	30.33	20.39
1300	20.62	22.29	23.03	31.53	29.04	26.19	30.35	20.38
1400	20.66	22.35	23.12	31.35	28.50	25.74	29.84	20.18
1500	20.58	22.33	23.16	31.18	28.11	25.42	29.47	20.03
1600	20.37	22.14	22.95	30.52	27.79	25.13	29.24	19.91
1700	20.22	22.05	22.87	29.73	26.91	24.46	28.44	19.57
1800	20.38	22.33	23.21	29.70	26.20	23.77	27.41	19.17
1900	20.43	22.41	23.32	29.78	25.96	23.49	26.98	18.99
2000	20.15	22.13	23.05	28.79	25.48	23.15	26.79	18.90
2100	19.82	21.87	22.73	27.87	24.90	22.68	26.26	18.64
2200	20.03	22.17	23.09	28.03	24.53	22.18	25.52	18.28
2300	21.21	23.85	24.93	27.58	22.64	20.49	22.91	17.06
2400	21.75	24.70	25.76	26.32	21.47	19.45	21.53	16.34
2500	22.28	25.37	26.51	26.04	21.02	18.98	20.80	15.90
2600	23.95	27.70	29.94	28.70	21.49	19.06	20.26	15.63
2700	29.50	35.47	43.29	25.95	19.93	17.73	18.25	14.65
2800	36.14	35.07	34.27	23.69	18.86	16.86	17.19	14.06
2900	38.81	29.83	28.98	22.11	18.03	16.22	16.34	13.55
3000	32.44	27.24	26.94	21.73	17.93	16.11	16.04	13.37
3200	22.87	21.23	21.64	20.60	17.96	16.18	15.46	13.14
3400	17.97	17.14	17.60	18.35	17.48	16.21	14.97	13.17
3600	14.65	14.15	14.50	15.78	16.24	15.86	14.38	13.36
3800	13.72	13.19	13.42	14.67	15.34	15.48	14.08	13.83
4000	14.46	13.80	13.96	15.18	15.78	16.03	14.42	14.69



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Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

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Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+25degC

FREQUENCY (MHz)	STEP ATTENUATION* AT TTL CONTROL STATE (dB)							
	000000 THRU LOSS	000001 0.5 dB	000010 1.0 dB	000100 2.0 dB	001000 4.0 dB	010000 8.0 dB	100000 16 dB	111111 31.5 dB
0.5	1.31	0.53	1.02	2.04	4.04	7.98	15.94	31.40
1	1.31	0.53	1.01	2.04	4.04	7.98	15.94	31.42
5	1.32	0.52	1.01	2.04	4.05	7.97	15.94	31.40
10	1.34	0.52	1.01	2.03	4.03	7.95	15.94	31.40
50	1.34	0.52	1.01	2.03	4.03	7.96	15.94	31.38
100	1.37	0.54	1.03	2.03	4.05	7.96	15.95	31.41
200	1.42	0.53	1.01	2.04	4.03	7.95	15.95	31.36
300	1.47	0.52	1.01	2.02	4.03	7.95	15.92	31.34
400	1.50	0.52	1.01	2.02	4.03	7.97	15.93	31.35
500	1.54	0.51	1.00	2.02	4.03	7.96	15.92	31.22
600	1.57	0.51	1.01	2.03	4.04	7.97	15.92	31.20
700	1.55	0.52	1.03	2.07	4.10	8.01	15.95	31.17
800	1.58	0.52	1.01	2.07	4.07	8.01	15.93	31.12
900	1.61	0.52	1.01	2.08	4.08	8.02	15.94	30.99
1000	1.69	0.52	1.00	2.05	4.06	8.00	15.91	30.91
1100	1.73	0.53	1.02	2.07	4.08	8.02	15.91	30.81
1200	1.80	0.51	1.00	2.06	4.05	7.96	15.88	30.66
1300	1.84	0.52	1.01	2.06	4.08	7.97	15.90	30.59
1400	1.91	0.51	1.00	2.07	4.05	7.97	15.87	30.41
1500	1.98	0.52	1.03	2.07	4.04	7.95	15.86	30.23
1600	2.02	0.51	1.01	2.07	4.04	7.96	15.84	30.14
1700	2.02	0.52	1.03	2.09	4.08	7.98	15.88	30.14
1800	2.03	0.53	1.03	2.11	4.11	8.01	15.88	29.95
1900	2.12	0.52	1.02	2.11	4.08	7.98	15.84	29.85
2000	2.18	0.53	1.04	2.12	4.10	8.03	15.87	29.79
2100	2.29	0.54	1.02	2.12	4.10	8.00	15.85	29.74
2200	2.36	0.54	1.02	2.11	4.11	8.00	15.85	29.46
2300	2.44	0.56	1.04	2.13	4.11	8.00	15.90	29.50
2400	2.57	0.54	1.03	2.11	4.11	7.97	15.89	29.18
2500	2.67	0.56	1.03	2.12	4.05	7.92	15.78	28.49
2600	2.68	0.54	1.04	2.10	4.04	7.92	15.78	28.43
2700	2.76	0.55	1.04	2.15	4.05	7.92	15.81	28.67
2800	2.91	0.56	1.05	2.15	4.06	7.91	15.79	28.47
2900	3.07	0.57	1.01	2.12	4.03	7.87	15.69	28.05
3000	3.18	0.55	1.02	2.14	4.01	7.82	15.54	27.50
3200	3.22	0.57	1.03	2.17	4.05	7.78	15.32	26.85
3400	3.49	0.57	1.02	2.15	4.01	7.72	15.32	27.36
3600	4.05	0.58	1.02	2.15	3.94	7.67	15.48	28.22
3800	4.88	0.62	1.05	2.08	3.89	7.67	15.66	28.15
4000	5.12	0.63	1.05	2.07	3.87	7.63	15.36	27.25

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Digital Step Attenuator

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Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+25degC

FREQUENCY (MHz)	INPUT RETURN LOSS AT TTL CONTROL STATE							
	(dB)							
	000000 0 dB	000001 0.5 dB	000010 1.0 dB	000100 2.0 dB	001000 4.0 dB	010000 8.0 dB	100000 16 dB	111111 31.5 dB
0.5	17.19	18.71	20.00	17.89	19.34	21.76	31.23	48.35
1	17.21	18.74	20.03	17.92	19.37	21.78	31.27	48.73
5	17.24	18.77	20.08	17.96	19.40	21.82	31.31	49.33
10	17.23	18.77	20.07	17.96	19.41	21.83	31.34	49.46
50	17.22	18.74	20.03	17.94	19.40	21.81	31.26	48.03
100	17.28	18.79	20.07	18.01	19.47	21.91	31.49	46.94
200	17.32	18.86	20.14	18.08	19.58	22.02	31.71	43.53
300	17.42	18.96	20.27	18.23	19.73	22.25	32.18	41.74
400	17.58	19.13	20.45	18.44	19.98	22.56	32.85	39.50
500	17.73	19.31	20.65	18.65	20.24	22.89	33.89	38.16
600	17.92	19.54	20.89	18.90	20.54	23.28	35.01	36.87
700	18.04	19.65	21.03	19.11	20.83	23.71	36.42	35.73
800	18.20	19.86	21.27	19.38	21.15	24.15	38.09	34.79
900	18.35	20.04	21.46	19.60	21.44	24.54	39.71	34.04
1000	18.47	20.18	21.65	19.79	21.71	24.93	41.07	33.26
1100	18.58	20.30	21.73	19.98	21.94	25.27	41.67	32.68
1200	18.68	20.41	21.87	20.20	22.20	25.58	40.79	31.83
1300	18.81	20.55	22.00	20.40	22.48	25.91	39.31	31.11
1400	18.89	20.68	22.06	20.61	22.73	26.19	37.63	30.31
1500	18.94	20.74	22.08	20.77	22.94	26.30	36.10	29.70
1600	19.09	20.93	22.25	21.08	23.35	26.84	34.78	28.89
1700	19.42	21.34	22.71	21.68	24.16	27.75	32.56	27.54
1800	19.71	21.76	23.01	22.32	25.01	28.48	30.23	26.14
1900	19.86	22.03	23.18	22.85	25.81	29.09	28.61	25.07
2000	20.18	22.49	23.66	23.67	27.12	30.22	26.95	23.88
2100	20.61	23.19	24.38	24.78	29.00	31.28	25.25	22.69
2200	21.48	24.40	25.79	26.50	32.37	31.83	23.69	21.55
2300	22.52	25.94	27.76	28.58	38.38	30.91	22.36	20.49
2400	23.94	27.82	31.44	30.54	44.90	29.36	21.16	19.57
2500	25.82	29.31	39.32	30.13	33.16	27.17	20.05	18.72
2600	27.70	28.97	37.16	27.66	27.76	24.78	18.99	17.90
2700	27.05	26.04	29.93	24.59	24.47	22.84	18.02	17.15
2800	24.84	23.17	25.43	21.95	21.92	21.14	17.20	16.49
2900	22.76	21.03	22.60	19.98	19.99	19.66	16.39	15.87
3000	21.14	19.56	20.81	18.67	18.65	18.57	15.74	15.33
3200	18.48	17.25	18.36	16.69	16.83	17.11	14.81	14.55
3400	16.20	15.33	16.32	15.03	15.35	15.91	14.07	13.97
3600	14.59	13.86	14.68	13.69	14.01	14.69	13.29	13.35
3800	14.47	13.74	14.30	13.48	13.61	14.10	12.82	12.92
4000	14.95	14.23	14.53	13.74	13.68	13.87	12.48	12.62



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Not recommended for new designs.

Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

DAT-31R5-SN+

Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+25degC

FREQUENCY (MHz)	OUTPUT RETURN LOSS AT TTL CONTROL STATE (dB)							
	000000 0 dB	000001 0.5 dB	000010 1.0 dB	000100 2.0 dB	001000 4.0 dB	010000 8.0 dB	100000 16 dB	111111 31.5 dB
0.5	17.19	17.82	17.87	22.01	25.94	26.67	23.39	57.71
1	17.21	17.84	17.88	22.02	25.95	26.66	23.38	59.43
5	17.23	17.87	17.92	22.06	25.98	26.69	23.42	58.27
10	17.23	17.87	17.91	22.05	25.98	26.69	23.42	57.69
50	17.23	17.87	17.92	22.02	25.90	26.59	23.37	49.43
100	17.23	17.88	17.92	22.03	25.92	26.69	23.46	43.61
200	17.32	17.97	18.04	22.16	26.03	26.76	23.66	37.86
300	17.49	18.16	18.21	22.38	26.25	26.98	24.01	34.57
400	17.67	18.34	18.42	22.63	26.45	27.19	24.38	32.42
500	17.92	18.62	18.70	23.01	26.80	27.54	24.89	30.92
600	18.20	18.93	19.03	23.48	27.37	28.08	25.52	30.06
700	18.66	19.44	19.55	24.19	28.08	28.71	26.62	28.55
800	18.81	19.60	19.74	24.41	28.13	28.74	27.10	27.80
900	19.02	19.83	19.99	24.74	28.39	28.92	27.72	27.24
1000	19.22	20.04	20.22	25.02	28.64	29.13	28.42	26.80
1100	19.28	20.17	20.33	25.21	28.62	29.18	28.97	26.47
1200	19.26	20.18	20.39	25.16	28.45	29.06	29.33	26.10
1300	19.17	20.10	20.33	24.98	28.03	28.64	29.60	25.73
1400	19.02	19.98	20.23	24.67	27.44	28.04	29.94	25.20
1500	18.76	19.78	20.09	24.28	26.78	27.38	30.12	24.68
1600	18.59	19.63	19.98	23.95	26.07	26.61	30.41	23.97
1700	18.46	19.56	19.89	23.56	25.24	25.67	30.64	23.14
1800	18.41	19.58	19.95	23.24	24.47	24.75	30.77	22.27
1900	18.35	19.61	19.97	22.97	23.72	23.83	30.66	21.40
2000	18.28	19.62	20.05	22.62	22.97	23.02	30.25	20.60
2100	18.40	19.81	20.26	22.64	22.68	22.55	30.15	19.98
2200	19.05	20.65	21.19	23.55	22.94	22.55	30.86	19.50
2300	19.95	21.90	22.48	23.79	22.04	21.32	27.67	18.22
2400	20.50	22.59	23.25	23.70	21.40	20.54	25.90	17.54
2500	21.11	23.35	24.14	24.32	21.50	20.44	25.23	17.24
2600	23.30	26.18	27.45	27.54	22.52	20.85	24.43	17.06
2700	27.87	33.39	36.98	27.31	21.47	19.67	21.64	16.16
2800	32.65	41.70	47.34	25.77	20.59	18.89	20.22	15.60
2900	40.06	34.93	34.23	24.48	19.93	18.28	19.13	15.14
3000	35.05	30.30	30.31	24.39	19.98	18.27	18.67	15.00
3200	23.60	22.12	22.56	22.98	20.21	18.50	17.58	14.86
3400	18.10	17.37	17.74	19.75	19.56	18.58	16.59	15.08
3600	14.93	14.47	14.72	16.79	17.84	17.97	15.60	15.58
3800	14.39	13.88	14.04	15.92	17.09	17.67	15.27	16.47
4000	15.36	14.73	14.87	16.89	18.12	18.84	15.85	18.11



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Not recommended for new designs.

Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

DAT-31R5-SN+

Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+85degC

FREQUENCY (MHz)	STEP ATTENUATION* AT TTL CONTROL STATE (dB)							
	000000 THRU LOSS	000001 0.5 dB	000010 1.0 dB	000100 2.0 dB	001000 4.0 dB	010000 8.0 dB	100000 16 dB	111111 31.5 dB
0.5	1.50	0.50	0.98	2.00	3.97	7.86	15.81	31.08
1	1.50	0.51	0.98	1.99	3.97	7.86	15.80	31.10
5	1.50	0.50	0.98	2.00	3.98	7.86	15.81	31.09
10	1.52	0.50	0.98	1.99	3.96	7.85	15.80	31.10
50	1.52	0.51	0.98	2.00	3.98	7.90	15.82	31.09
100	1.56	0.51	0.99	2.00	3.98	7.86	15.81	31.13
200	1.61	0.50	0.98	1.99	3.98	7.88	15.80	31.07
300	1.66	0.52	1.00	2.00	3.98	7.88	15.82	31.08
400	1.73	0.51	0.99	2.00	3.97	7.85	15.80	31.08
500	1.78	0.52	0.98	1.99	3.97	7.87	15.80	31.02
600	1.83	0.50	0.98	2.00	3.96	7.85	15.77	30.94
700	1.82	0.51	0.98	2.01	4.00	7.88	15.79	30.87
800	1.85	0.52	0.98	2.02	4.00	7.88	15.78	30.85
900	1.90	0.50	0.98	2.04	4.01	7.87	15.77	30.74
1000	1.97	0.52	1.00	2.04	4.00	7.87	15.76	30.69
1100	2.05	0.50	0.98	2.02	3.99	7.86	15.74	30.62
1200	2.11	0.52	0.99	2.03	3.98	7.85	15.74	30.55
1300	2.15	0.51	0.99	2.03	3.96	7.85	15.72	30.39
1400	2.23	0.50	0.99	2.02	3.97	7.81	15.72	30.26
1500	2.31	0.50	0.97	2.03	3.97	7.86	15.71	30.07
1600	2.34	0.51	0.99	2.05	3.99	7.85	15.69	29.98
1700	2.34	0.52	1.00	2.06	4.02	7.89	15.72	30.00
1800	2.37	0.50	0.98	2.05	4.04	7.86	15.71	29.89
1900	2.45	0.50	1.00	2.07	4.02	7.89	15.71	29.81
2000	2.53	0.51	1.02	2.08	4.03	7.87	15.72	29.73
2100	2.64	0.51	1.00	2.07	4.00	7.91	15.69	29.62
2200	2.70	0.53	1.01	2.09	4.03	7.90	15.73	29.50
2300	2.81	0.52	1.02	2.10	4.03	7.88	15.79	29.69
2400	2.90	0.55	1.02	2.10	4.04	7.89	15.79	29.30
2500	3.04	0.52	0.99	2.08	3.99	7.80	15.69	28.60
2600	3.04	0.54	1.02	2.09	4.00	7.82	15.71	28.82
2700	3.17	0.54	0.99	2.10	3.99	7.82	15.77	29.01
2800	3.31	0.55	1.02	2.11	3.98	7.81	15.74	28.71
2900	3.47	0.55	1.03	2.11	4.00	7.78	15.65	28.18
3000	3.56	0.58	1.03	2.11	3.98	7.74	15.49	27.60
3200	3.62	0.58	1.02	2.16	4.02	7.69	15.25	27.10
3400	3.93	0.59	1.00	2.14	3.94	7.62	15.28	27.56
3600	4.54	0.60	1.01	2.14	3.88	7.60	15.51	28.81
3800	5.34	0.59	0.97	2.04	3.80	7.58	15.54	28.17
4000	5.63	0.58	0.98	2.02	3.80	7.56	15.34	27.84

* Step Attenuation above Thru Loss (TTL Logic 00000).



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Not recommended for new designs.

Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

DAT-31R5-SN+

Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+85degC

FREQUENCY (MHz)	INPUT RETURN LOSS AT TTL CONTROL STATE							
	(dB)							
	000000 0 dB	000001 0.5 dB	000010 1.0 dB	000100 2.0 dB	001000 4.0 dB	010000 8.0 dB	100000 16 dB	111111 31.5 dB
0.5	16.17	17.33	18.26	16.17	16.96	18.27	22.74	26.39
1	16.18	17.34	18.27	16.19	16.98	18.27	22.74	26.36
5	16.21	17.38	18.31	16.22	17.00	18.30	22.76	26.42
10	16.21	17.37	18.31	16.23	17.01	18.31	22.79	26.47
50	16.19	17.36	18.30	16.25	17.06	18.38	22.91	26.62
100	16.28	17.47	18.45	16.40	17.24	18.65	23.39	27.34
200	16.46	17.68	18.68	16.62	17.52	19.03	24.02	28.34
300	16.59	17.77	18.78	16.68	17.53	18.95	23.77	27.86
400	16.69	17.84	18.81	16.68	17.45	18.78	23.33	27.10
500	16.76	17.88	18.84	16.73	17.46	18.74	23.18	26.74
600	16.91	18.04	18.99	16.88	17.62	18.86	23.35	26.86
700	17.04	18.17	19.13	17.06	17.80	19.08	23.66	27.22
800	17.23	18.36	19.31	17.26	18.01	19.28	23.97	27.51
900	17.33	18.47	19.41	17.41	18.16	19.44	24.19	27.69
1000	17.37	18.52	19.43	17.54	18.33	19.64	24.54	27.95
1100	17.42	18.59	19.47	17.71	18.55	19.87	24.95	28.29
1200	17.47	18.67	19.53	17.88	18.79	20.16	25.44	28.66
1300	17.54	18.75	19.58	18.08	19.02	20.44	25.93	28.95
1400	17.57	18.81	19.63	18.25	19.24	20.68	26.34	29.08
1500	17.55	18.80	19.58	18.36	19.38	20.84	26.65	29.08
1600	17.62	18.91	19.66	18.61	19.68	21.19	27.34	29.44
1700	17.83	19.17	19.89	19.01	20.16	21.72	28.23	29.56
1800	18.00	19.45	20.07	19.45	20.69	22.27	28.92	29.07
1900	18.14	19.64	20.22	19.86	21.23	22.83	29.53	28.49
2000	18.42	20.04	20.55	20.51	22.07	23.78	30.31	27.84
2100	18.83	20.62	21.11	21.37	23.22	25.04	30.27	26.69
2200	19.70	21.72	22.20	22.77	25.07	26.91	29.14	25.37
2300	20.71	23.13	23.61	24.46	27.56	29.25	27.47	24.05
2400	22.31	25.32	26.16	26.90	31.87	32.74	25.65	22.81
2500	24.82	28.50	31.28	29.52	37.58	34.48	23.85	21.60
2600	27.44	30.43	42.25	29.25	32.30	30.51	22.17	20.51
2700	27.93	27.71	34.90	25.88	26.85	26.75	20.67	19.47
2800	25.81	24.28	27.71	22.79	23.32	23.76	19.40	18.57
2900	23.45	21.82	23.98	20.62	21.01	21.65	18.31	17.71
3000	21.65	20.19	21.89	19.20	19.50	20.24	17.48	17.10
3200	18.83	17.75	19.20	17.15	17.53	18.47	16.37	16.21
3400	16.62	15.84	17.12	15.56	16.04	17.15	15.59	15.65
3600	15.42	14.73	15.78	14.55	14.97	16.09	14.87	15.08
3800	15.79	15.04	15.84	14.77	15.05	15.91	14.59	14.80
4000	16.67	15.94	16.37	15.43	15.44	15.91	14.35	14.58



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Not recommended for new designs.

Recommended replacement part: DAT-31R5A-SN+

Digital Step Attenuator

DAT-31R5-SN+

Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+85degC

Table with columns: FREQUENCY (MHz), OUTPUT RETURN LOSS AT TTL CONTROL STATE (dB) for various dB values (0 dB, 0.5 dB, 1.0 dB, 2.0 dB, 4.0 dB, 8.0 dB, 16 dB, 31.5 dB). Rows range from 0.5 MHz to 4000 MHz.



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