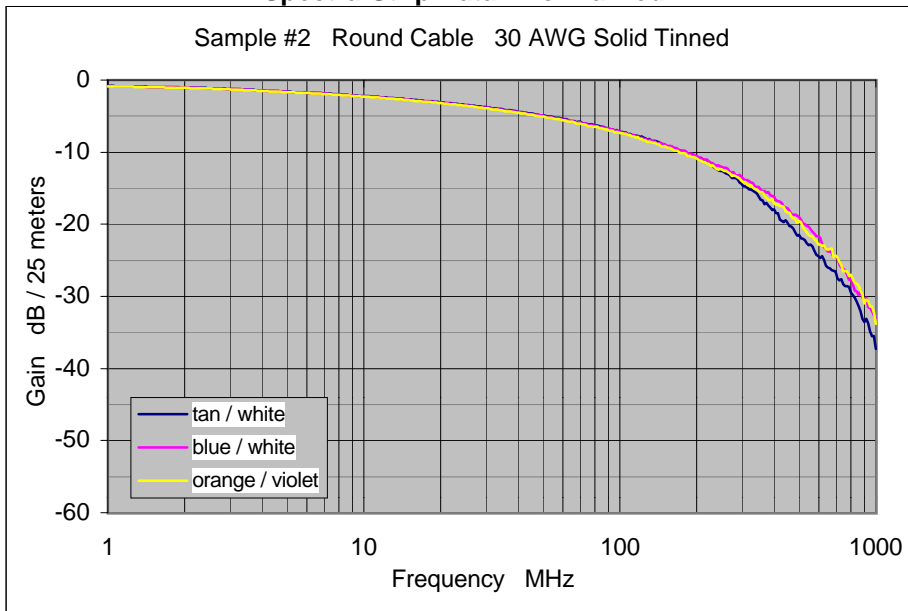
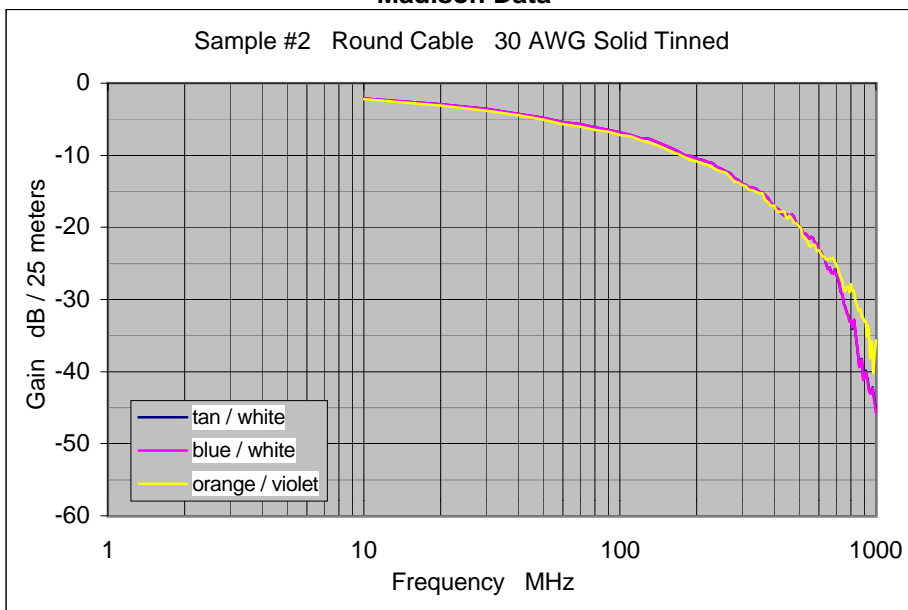


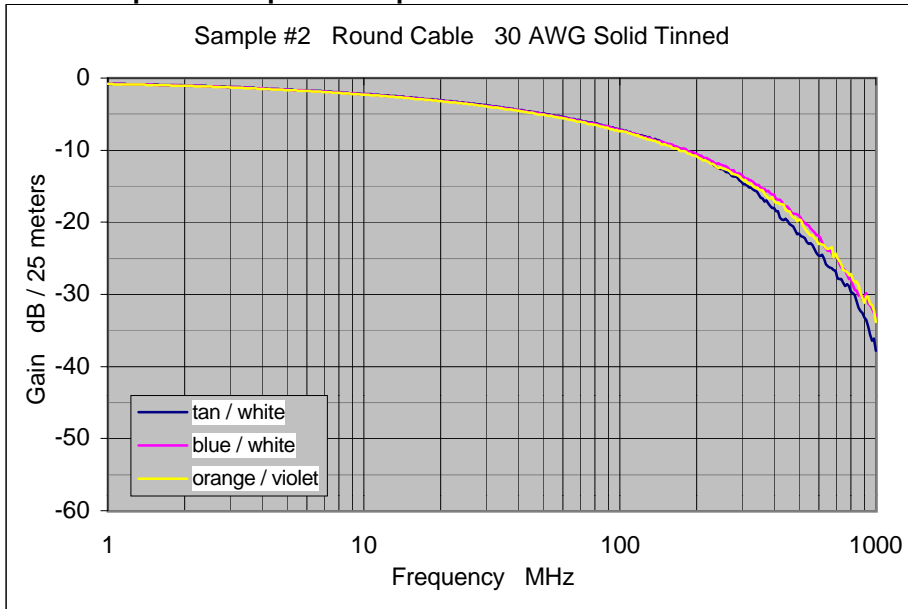
Spectra-Strip Data - Normalized



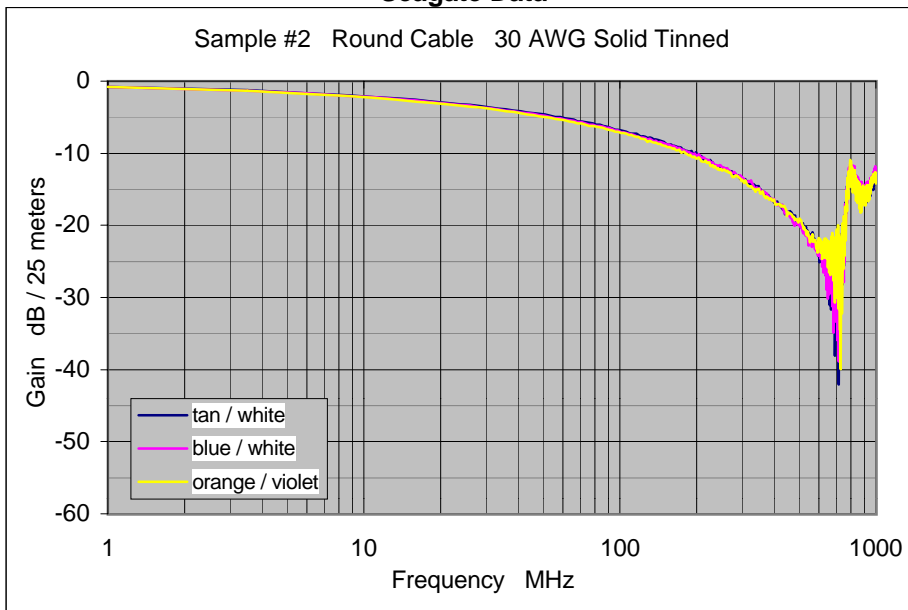
Madison Data



Spectra-Strip Data - 2 port Calibration then Normalized

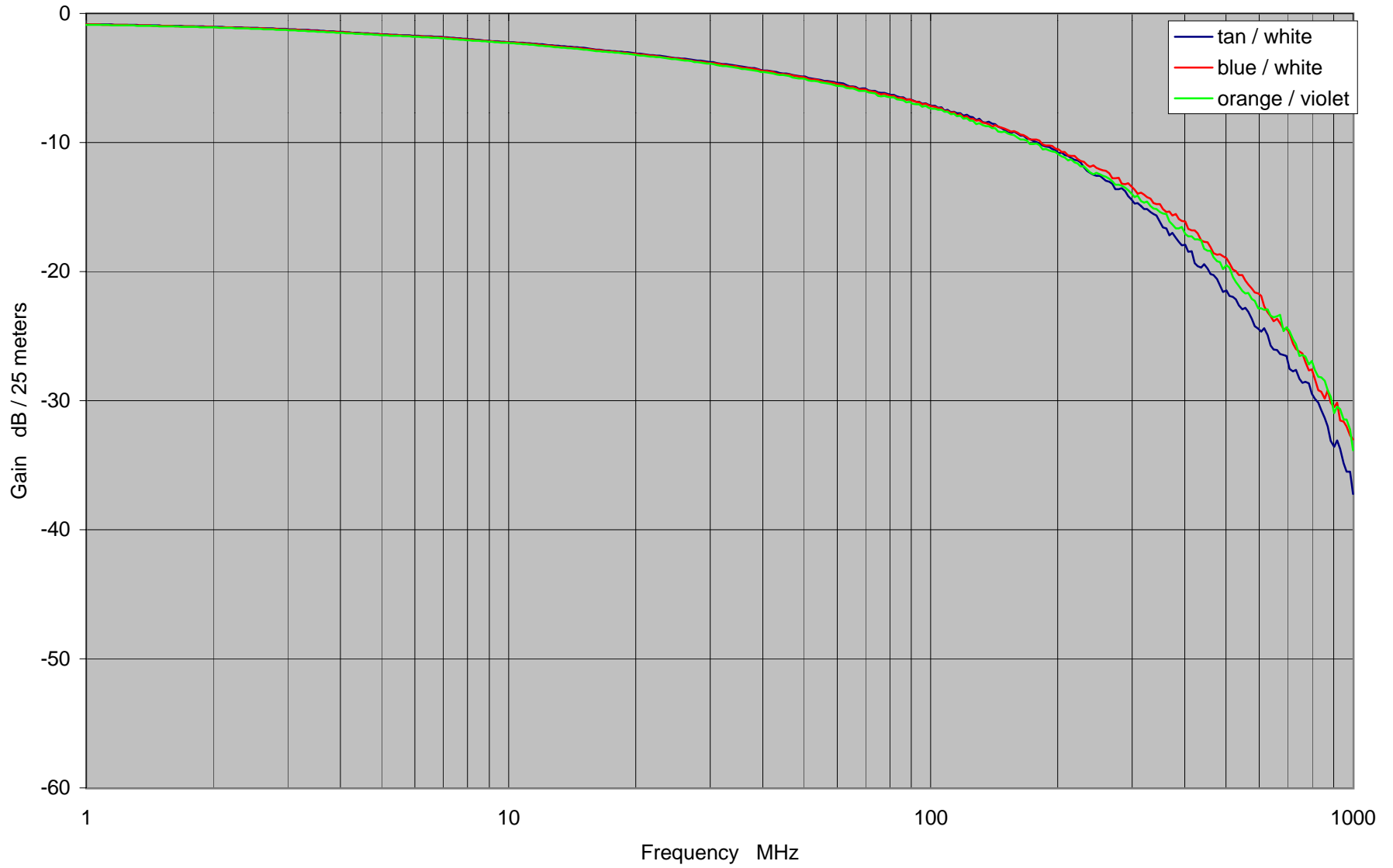


Seagate Data



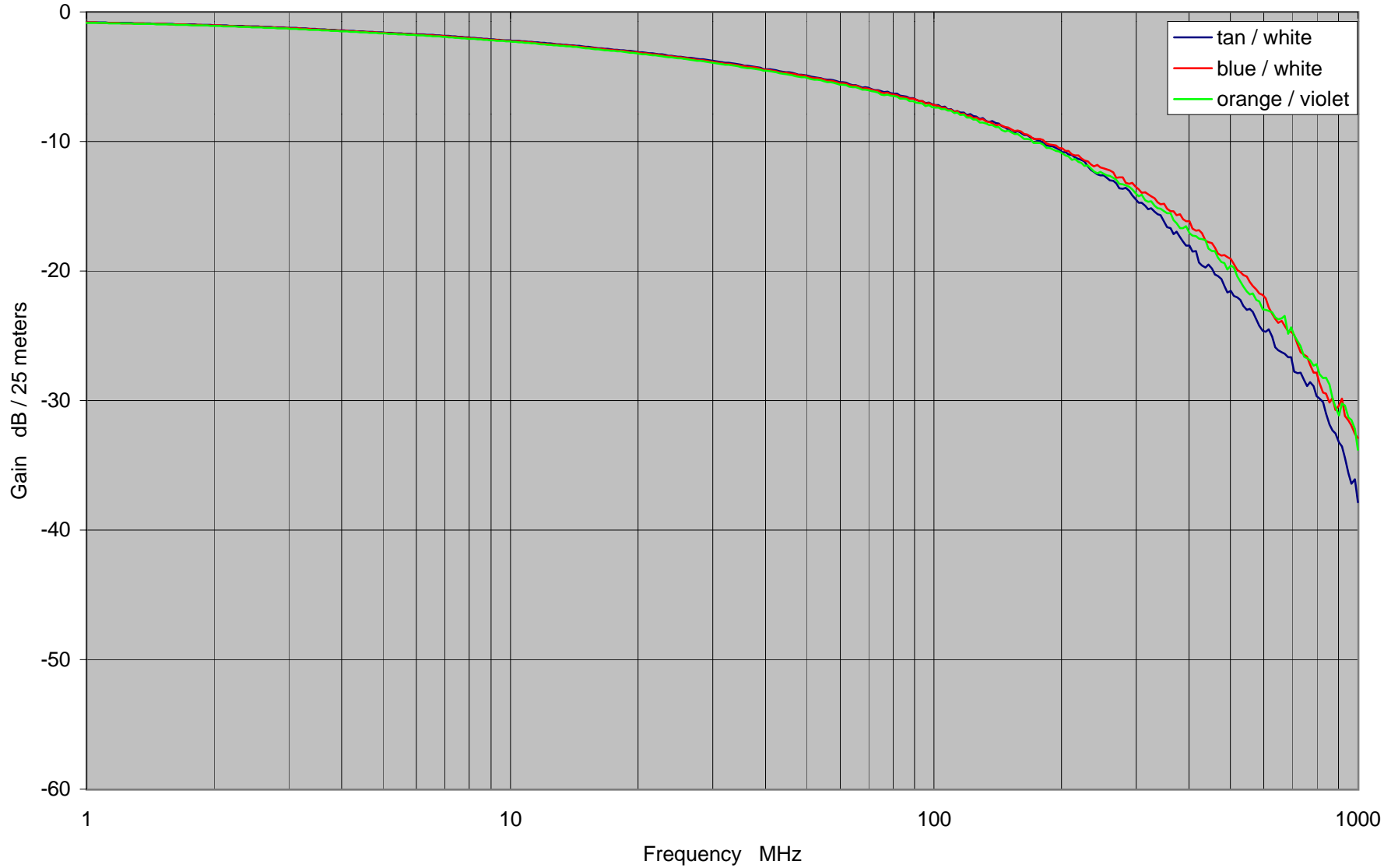
"ATTENUATION"
Normalized Only

Sample #2 Round Cable 30 AWG Solid Tinned



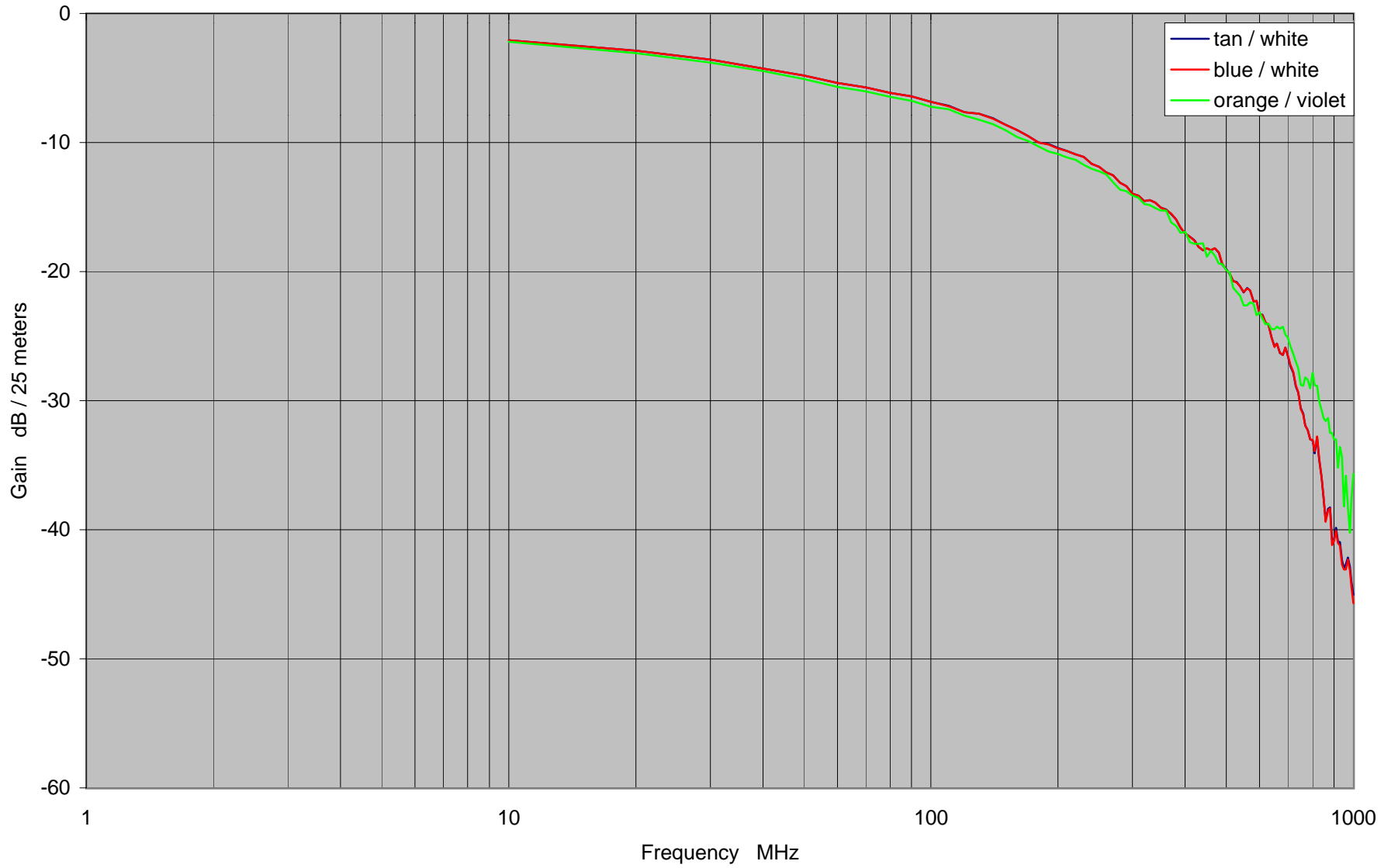
"ATTENUATION"
2 Port Calibration

Sample #2 Round Cable 30 AWG Solid Tinned



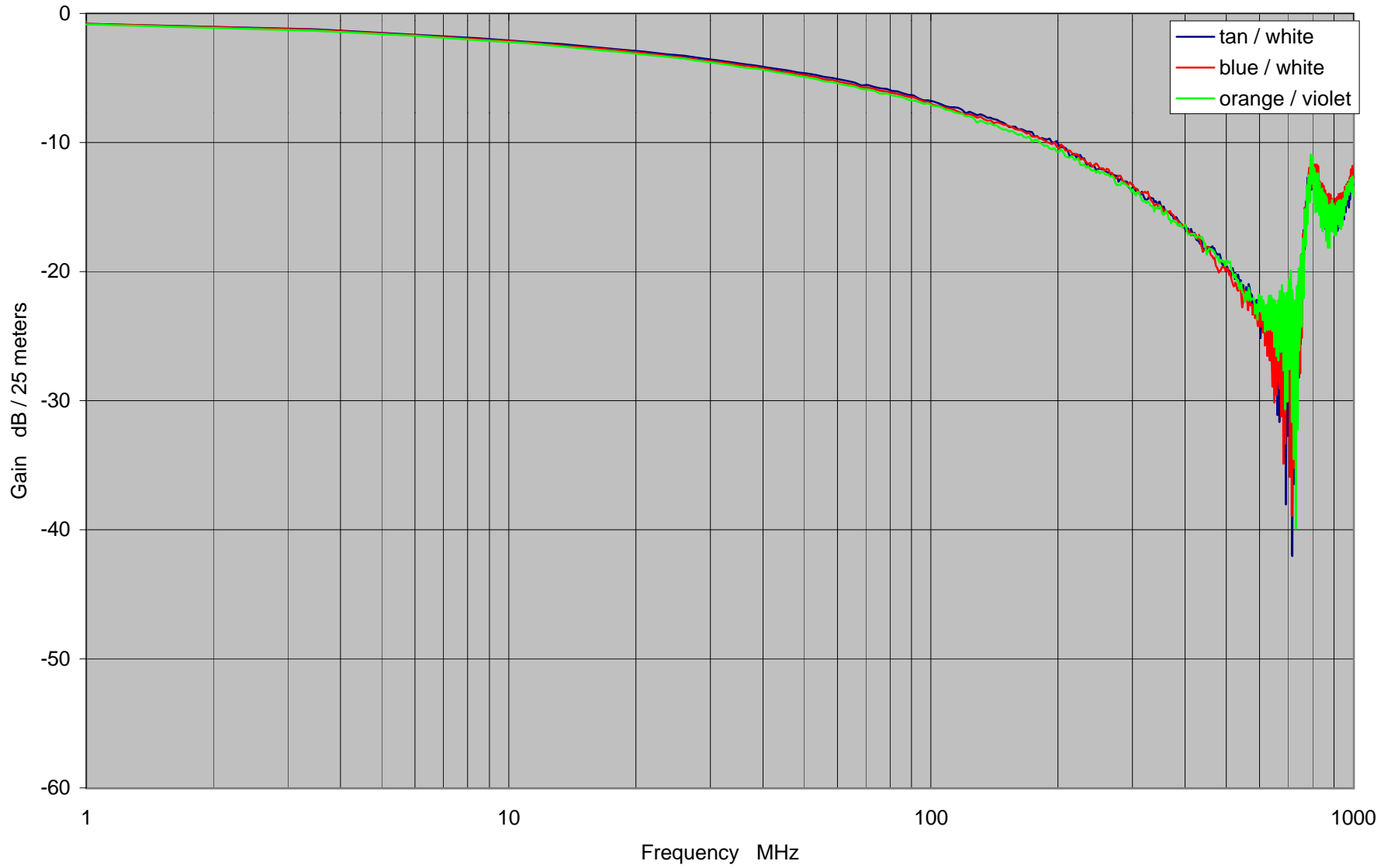
"ATTENUATION"

Sample #2 Round Cable 30 AWG Solid Tinned



"ATTENUATION"

Sample #2 Round Cable 30 AWG Solid Tinned



SAVED BY:
TITLE:
COMMENTS:
DATE: 2/12/01
TIME: 8:17 AM

Freq MHz	tan / white	blue / white	orange / violet
1.00	-0.83	-0.84	-0.87
1.02	-0.83	-0.84	-0.87
1.04	-0.83	-0.85	-0.88
1.05	-0.84	-0.85	-0.88
1.07	-0.85	-0.86	-0.89
1.09	-0.85	-0.87	-0.89
1.11	-0.86	-0.87	-0.90
1.13	-0.86	-0.87	-0.90
1.15	-0.86	-0.88	-0.91
1.17	-0.87	-0.88	-0.91
1.19	-0.88	-0.89	-0.92
1.21	-0.88	-0.89	-0.92
1.23	-0.88	-0.90	-0.92
1.25	-0.89	-0.90	-0.93
1.27	-0.89	-0.91	-0.94
1.30	-0.90	-0.91	-0.94
1.32	-0.90	-0.92	-0.94
1.34	-0.91	-0.92	-0.95
1.36	-0.91	-0.93	-0.96
1.39	-0.92	-0.93	-0.96
1.41	-0.92	-0.94	-0.97
1.44	-0.93	-0.94	-0.97
1.46	-0.93	-0.95	-0.98
1.49	-0.94	-0.96	-0.98
1.51	-0.94	-0.96	-0.99
1.54	-0.95	-0.96	-1.00
1.57	-0.96	-0.97	-1.00
1.59	-0.96	-0.97	-1.01
1.62	-0.97	-0.98	-1.01
1.65	-0.97	-0.99	-1.02
1.68	-0.98	-0.99	-1.02
1.71	-0.98	-1.00	-1.03
1.74	-0.99	-1.01	-1.04
1.77	-1.00	-1.01	-1.04
1.80	-1.00	-1.02	-1.05
1.83	-1.00	-1.02	-1.06
1.86	-1.01	-1.03	-1.06
1.89	-1.02	-1.04	-1.07
1.93	-1.02	-1.04	-1.08
1.96	-1.03	-1.05	-1.08
2.00	-1.04	-1.05	-1.09
2.03	-1.04	-1.06	-1.10
2.07	-1.05	-1.07	-1.10

2.10	-1.05	-1.07	-1.11
2.14	-1.06	-1.08	-1.11
2.18	-1.07	-1.09	-1.13
2.21	-1.07	-1.09	-1.13
2.25	-1.08	-1.10	-1.14
2.29	-1.09	-1.11	-1.15
2.33	-1.10	-1.12	-1.15
2.37	-1.10	-1.12	-1.16
2.41	-1.11	-1.13	-1.17
2.45	-1.12	-1.14	-1.18
2.50	-1.12	-1.15	-1.19
2.54	-1.13	-1.16	-1.20
2.59	-1.14	-1.17	-1.21
2.63	-1.15	-1.17	-1.21
2.68	-1.15	-1.18	-1.23
2.72	-1.16	-1.19	-1.23
2.77	-1.17	-1.20	-1.24
2.82	-1.18	-1.21	-1.25
2.87	-1.19	-1.22	-1.26
2.92	-1.20	-1.23	-1.28
2.97	-1.21	-1.24	-1.29
3.02	-1.22	-1.25	-1.30
3.07	-1.23	-1.26	-1.31
3.13	-1.24	-1.27	-1.32
3.18	-1.25	-1.28	-1.33
3.24	-1.26	-1.29	-1.34
3.29	-1.27	-1.31	-1.35
3.35	-1.29	-1.32	-1.37
3.41	-1.30	-1.33	-1.38
3.47	-1.31	-1.34	-1.39
3.53	-1.32	-1.35	-1.40
3.59	-1.34	-1.37	-1.42
3.65	-1.35	-1.38	-1.43
3.72	-1.37	-1.40	-1.44
3.78	-1.38	-1.41	-1.46
3.85	-1.40	-1.42	-1.47
3.91	-1.41	-1.44	-1.48
3.98	-1.42	-1.45	-1.50
4.05	-1.44	-1.47	-1.51
4.12	-1.45	-1.48	-1.53
4.19	-1.47	-1.49	-1.54
4.27	-1.48	-1.51	-1.55
4.34	-1.50	-1.52	-1.57
4.42	-1.51	-1.54	-1.58
4.49	-1.52	-1.55	-1.60
4.57	-1.54	-1.56	-1.61
4.65	-1.55	-1.58	-1.62
4.73	-1.57	-1.59	-1.63
4.81	-1.58	-1.61	-1.65
4.90	-1.59	-1.62	-1.66
4.98	-1.61	-1.63	-1.67

5.07	-1.62	-1.64	-1.69
5.16	-1.63	-1.66	-1.70
5.25	-1.64	-1.67	-1.71
5.34	-1.66	-1.68	-1.72
5.43	-1.67	-1.69	-1.73
5.53	-1.68	-1.71	-1.75
5.62	-1.69	-1.72	-1.76
5.72	-1.70	-1.73	-1.77
5.82	-1.71	-1.74	-1.78
5.92	-1.72	-1.75	-1.80
6.03	-1.73	-1.76	-1.81
6.13	-1.74	-1.77	-1.82
6.24	-1.75	-1.78	-1.83
6.35	-1.76	-1.79	-1.84
6.46	-1.78	-1.81	-1.86
6.57	-1.79	-1.82	-1.87
6.68	-1.80	-1.83	-1.88
6.80	-1.81	-1.85	-1.90
6.92	-1.83	-1.86	-1.92
7.04	-1.84	-1.88	-1.93
7.16	-1.86	-1.90	-1.95
7.29	-1.88	-1.91	-1.97
7.41	-1.89	-1.93	-1.98
7.54	-1.91	-1.95	-2.00
7.67	-1.93	-1.97	-2.02
7.81	-1.96	-1.99	-2.04
7.94	-1.98	-2.01	-2.06
8.08	-1.99	-2.03	-2.08
8.22	-2.01	-2.05	-2.10
8.37	-2.04	-2.07	-2.12
8.51	-2.06	-2.09	-2.13
8.66	-2.08	-2.11	-2.15
8.81	-2.10	-2.13	-2.17
8.96	-2.12	-2.14	-2.19
9.12	-2.14	-2.16	-2.21
9.28	-2.15	-2.18	-2.22
9.44	-2.17	-2.20	-2.24
9.61	-2.18	-2.21	-2.25
9.77	-2.20	-2.23	-2.27
9.94	-2.21	-2.24	-2.29
10.12	-2.23	-2.26	-2.30
10.29	-2.24	-2.27	-2.32
10.47	-2.25	-2.29	-2.34
10.65	-2.26	-2.30	-2.36
10.84	-2.28	-2.32	-2.38
11.03	-2.29	-2.34	-2.40
11.22	-2.31	-2.36	-2.42
11.42	-2.33	-2.38	-2.44
11.61	-2.36	-2.40	-2.47
11.82	-2.38	-2.43	-2.49
12.02	-2.40	-2.45	-2.51

12.23	-2.42	-2.47	-2.53
12.45	-2.44	-2.49	-2.55
12.66	-2.47	-2.52	-2.58
12.88	-2.49	-2.54	-2.60
13.11	-2.51	-2.56	-2.62
13.34	-2.53	-2.58	-2.64
13.57	-2.55	-2.60	-2.66
13.80	-2.57	-2.62	-2.68
14.04	-2.59	-2.64	-2.69
14.29	-2.60	-2.65	-2.72
14.54	-2.62	-2.67	-2.74
14.79	-2.64	-2.70	-2.76
15.05	-2.67	-2.72	-2.79
15.31	-2.70	-2.75	-2.82
15.58	-2.73	-2.78	-2.86
15.85	-2.77	-2.81	-2.89
16.12	-2.79	-2.84	-2.91
16.41	-2.81	-2.87	-2.93
16.69	-2.84	-2.89	-2.95
16.98	-2.87	-2.92	-2.98
17.28	-2.89	-2.94	-3.00
17.58	-2.91	-2.96	-3.02
17.89	-2.93	-2.98	-3.04
18.20	-2.95	-3.00	-3.06
18.51	-2.96	-3.02	-3.08
18.84	-2.98	-3.04	-3.10
19.16	-3.01	-3.06	-3.13
19.50	-3.04	-3.10	-3.17
19.84	-3.07	-3.13	-3.20
20.18	-3.10	-3.15	-3.22
20.54	-3.13	-3.18	-3.25
20.89	-3.16	-3.21	-3.28
21.26	-3.19	-3.24	-3.31
21.63	-3.21	-3.26	-3.33
22.00	-3.23	-3.28	-3.35
22.39	-3.25	-3.31	-3.38
22.78	-3.28	-3.33	-3.40
23.17	-3.31	-3.37	-3.43
23.58	-3.36	-3.41	-3.47
23.99	-3.39	-3.43	-3.50
24.41	-3.41	-3.46	-3.53
24.83	-3.44	-3.49	-3.56
25.26	-3.47	-3.51	-3.59
25.70	-3.50	-3.54	-3.61
26.15	-3.52	-3.57	-3.64
26.61	-3.54	-3.60	-3.67
27.07	-3.57	-3.64	-3.71
27.54	-3.61	-3.69	-3.75
28.02	-3.64	-3.72	-3.78
28.51	-3.66	-3.75	-3.81
29.01	-3.69	-3.77	-3.84

29.51	-3.72	-3.80	-3.87
30.03	-3.75	-3.83	-3.90
30.55	-3.78	-3.85	-3.94
31.08	-3.83	-3.89	-3.99
31.62	-3.89	-3.94	-4.04
32.17	-3.91	-3.98	-4.07
32.73	-3.93	-4.01	-4.09
33.30	-3.97	-4.04	-4.12
33.88	-3.99	-4.06	-4.15
34.47	-4.02	-4.10	-4.19
35.08	-4.07	-4.13	-4.25
35.69	-4.13	-4.19	-4.31
36.31	-4.16	-4.21	-4.31
36.94	-4.18	-4.25	-4.34
37.58	-4.21	-4.28	-4.37
38.24	-4.25	-4.31	-4.41
38.90	-4.30	-4.36	-4.46
39.58	-4.39	-4.44	-4.53
40.27	-4.41	-4.46	-4.55
40.97	-4.43	-4.48	-4.58
41.69	-4.46	-4.51	-4.61
42.41	-4.49	-4.55	-4.65
43.15	-4.56	-4.64	-4.72
43.90	-4.63	-4.70	-4.78
44.67	-4.64	-4.70	-4.79
45.45	-4.66	-4.72	-4.81
46.24	-4.69	-4.75	-4.86
47.04	-4.75	-4.81	-4.95
47.86	-4.82	-4.86	-5.01
48.70	-4.84	-4.89	-5.02
49.54	-4.87	-4.92	-5.04
50.41	-4.90	-4.97	-5.09
51.29	-4.99	-5.07	-5.18
52.18	-5.04	-5.11	-5.21
53.09	-5.07	-5.12	-5.23
54.01	-5.10	-5.15	-5.26
54.95	-5.16	-5.22	-5.34
55.91	-5.22	-5.30	-5.40
56.89	-5.23	-5.30	-5.40
57.88	-5.26	-5.33	-5.44
58.88	-5.32	-5.40	-5.52
59.91	-5.40	-5.48	-5.60
60.95	-5.40	-5.49	-5.61
62.02	-5.44	-5.53	-5.65
63.10	-5.55	-5.63	-5.75
64.19	-5.66	-5.69	-5.81
65.31	-5.64	-5.70	-5.81
66.45	-5.70	-5.76	-5.88
67.61	-5.83	-5.90	-6.00
68.79	-5.80	-5.87	-6.00
69.98	-5.81	-5.89	-6.01

71.20	-5.95	-6.01	-6.10
72.44	-6.02	-6.05	-6.14
73.71	-6.01	-6.07	-6.20
74.99	-6.10	-6.19	-6.38
76.30	-6.15	-6.25	-6.42
77.62	-6.14	-6.23	-6.38
78.98	-6.25	-6.32	-6.45
80.35	-6.30	-6.38	-6.48
81.75	-6.29	-6.39	-6.52
83.18	-6.42	-6.53	-6.67
84.63	-6.51	-6.56	-6.70
86.10	-6.51	-6.58	-6.72
87.60	-6.64	-6.68	-6.88
89.12	-6.66	-6.66	-6.86
90.68	-6.74	-6.77	-7.00
92.26	-6.84	-6.86	-7.05
93.86	-6.84	-6.87	-7.05
95.50	-7.01	-7.05	-7.24
97.16	-6.96	-7.01	-7.17
98.86	-7.08	-7.13	-7.32
100.58	-7.15	-7.20	-7.37
102.33	-7.16	-7.25	-7.38
104.11	-7.30	-7.36	-7.47
105.93	-7.27	-7.35	-7.47
107.77	-7.53	-7.56	-7.61
109.65	-7.47	-7.52	-7.60
111.56	-7.67	-7.71	-7.79
113.50	-7.63	-7.65	-7.77
115.48	-7.73	-7.89	-7.96
117.49	-7.74	-7.82	-7.92
119.54	-7.92	-8.04	-8.14
121.62	-7.85	-7.98	-8.12
123.74	-8.00	-8.19	-8.31
125.89	-8.04	-8.15	-8.31
128.09	-8.26	-8.31	-8.57
130.32	-8.17	-8.26	-8.52
132.59	-8.42	-8.45	-8.64
134.90	-8.46	-8.50	-8.72
137.25	-8.39	-8.56	-8.74
139.64	-8.55	-8.76	-8.89
142.07	-8.57	-8.67	-8.89
144.54	-8.77	-8.77	-9.14
147.06	-8.87	-8.86	-9.21
149.62	-9.04	-8.91	-9.15
152.23	-9.24	-9.03	-9.29
154.88	-9.28	-9.15	-9.40
157.58	-9.16	-9.13	-9.41
160.32	-9.31	-9.22	-9.62
163.12	-9.45	-9.40	-9.78
165.96	-9.47	-9.43	-9.78
168.85	-9.68	-9.57	-9.84

171.79	-9.74	-9.77	-10.11
174.78	-9.87	-9.75	-10.11
177.83	-9.96	-9.77	-10.09
180.93	-10.08	-9.85	-10.21
184.08	-10.25	-10.14	-10.52
187.28	-10.30	-10.22	-10.51
190.55	-10.36	-10.23	-10.61
193.86	-10.48	-10.28	-10.69
197.24	-10.57	-10.46	-10.74
200.68	-10.83	-10.53	-10.91
204.17	-10.79	-10.72	-11.06
207.73	-10.98	-10.71	-11.14
211.35	-11.04	-10.99	-11.38
215.03	-11.21	-11.05	-11.32
218.78	-11.33	-11.03	-11.54
222.59	-11.40	-11.28	-11.62
226.46	-11.54	-11.42	-11.85
230.41	-11.93	-11.50	-11.84
234.42	-12.18	-11.72	-12.06
238.51	-12.33	-11.87	-12.31
242.66	-12.51	-11.76	-12.44
246.89	-12.58	-11.96	-12.35
251.19	-12.56	-12.06	-12.46
255.56	-12.77	-12.13	-12.59
260.02	-12.97	-12.20	-12.65
264.54	-13.03	-12.37	-12.79
269.15	-13.19	-12.78	-13.00
273.84	-13.61	-12.75	-13.28
278.61	-13.62	-12.74	-13.27
283.46	-13.55	-13.18	-13.35
288.40	-13.77	-13.23	-13.50
293.43	-14.16	-13.16	-13.70
298.54	-14.40	-13.40	-13.93
303.74	-14.73	-13.66	-14.22
309.03	-14.71	-13.96	-14.12
314.41	-14.93	-13.89	-14.53
319.89	-15.16	-14.06	-14.66
325.46	-15.15	-14.22	-14.59
331.13	-15.38	-14.33	-14.92
336.90	-15.53	-14.69	-15.11
342.77	-15.67	-14.79	-15.16
348.74	-16.17	-14.79	-15.40
354.81	-16.56	-15.14	-15.50
360.99	-16.67	-15.40	-15.52
367.28	-17.18	-15.35	-16.11
373.68	-17.01	-15.65	-16.35
380.19	-17.39	-15.53	-16.64
386.81	-17.69	-15.93	-16.66
393.55	-17.98	-16.06	-16.53
400.40	-17.94	-16.11	-17.07
407.38	-18.44	-16.69	-17.26

414.48	-18.43	-16.79	-17.26
421.70	-19.36	-16.82	-17.49
429.04	-19.57	-17.03	-17.50
436.51	-19.68	-17.57	-17.57
444.12	-19.43	-17.69	-18.22
451.86	-19.77	-17.73	-18.37
459.73	-20.20	-18.12	-18.38
467.73	-20.28	-18.59	-18.87
475.88	-20.56	-18.70	-19.18
484.17	-21.09	-18.63	-19.26
492.61	-21.57	-18.79	-19.80
501.19	-21.46	-18.95	-19.48
509.92	-21.89	-19.36	-19.69
518.80	-21.98	-19.85	-20.41
527.84	-22.17	-19.97	-20.80
537.03	-22.63	-20.27	-21.12
546.39	-22.93	-20.29	-21.49
555.90	-22.79	-20.70	-21.68
565.59	-23.10	-21.00	-21.66
575.44	-23.66	-21.31	-22.11
585.46	-24.23	-21.62	-22.25
595.66	-24.43	-21.68	-22.84
606.04	-24.64	-21.88	-22.84
616.59	-24.39	-22.70	-22.96
627.33	-24.94	-23.17	-22.94
638.26	-25.71	-23.45	-23.44
649.38	-26.03	-23.83	-23.55
660.69	-26.09	-23.66	-23.44
672.20	-26.39	-24.00	-23.35
683.91	-26.46	-24.48	-24.60
695.82	-26.54	-24.44	-24.29
707.94	-27.54	-24.75	-24.62
720.28	-27.74	-25.57	-25.24
732.82	-27.60	-26.01	-25.62
745.59	-28.31	-26.20	-26.53
758.58	-28.60	-26.34	-26.45
771.79	-28.54	-27.00	-26.58
785.23	-28.67	-27.66	-27.18
798.91	-29.46	-27.56	-26.94
812.83	-29.85	-28.32	-27.62
826.99	-30.16	-29.21	-28.14
841.39	-30.75	-29.32	-28.20
856.05	-31.33	-29.85	-28.48
870.96	-32.02	-29.19	-29.19
886.13	-33.10	-30.16	-29.69
901.57	-33.59	-30.49	-30.95
917.27	-33.08	-30.14	-30.47
933.25	-33.71	-31.55	-30.65
949.51	-34.86	-31.63	-31.45
966.05	-35.49	-32.00	-31.46
982.88	-35.51	-32.71	-32.24

1000.00

-37.24

-32.99

-33.83

SAVED BY:
TITLE:
COMMENTS:
DATE: 2/12/01
TIME: 8:17 AM

Freq MHz	tan / white	blue / white	orange / violet
1.00	-0.80	-0.81	-0.83
1.02	-0.80	-0.81	-0.83
1.04	-0.80	-0.82	-0.84
1.05	-0.81	-0.82	-0.85
1.07	-0.81	-0.83	-0.85
1.09	-0.82	-0.83	-0.85
1.11	-0.82	-0.84	-0.86
1.13	-0.83	-0.84	-0.87
1.15	-0.83	-0.85	-0.87
1.17	-0.84	-0.85	-0.88
1.19	-0.84	-0.86	-0.88
1.21	-0.85	-0.87	-0.89
1.23	-0.85	-0.87	-0.89
1.25	-0.86	-0.87	-0.90
1.27	-0.86	-0.88	-0.90
1.30	-0.87	-0.89	-0.91
1.32	-0.87	-0.89	-0.91
1.34	-0.88	-0.90	-0.92
1.36	-0.89	-0.90	-0.92
1.39	-0.89	-0.91	-0.93
1.41	-0.90	-0.92	-0.93
1.44	-0.90	-0.92	-0.94
1.46	-0.91	-0.92	-0.95
1.49	-0.91	-0.93	-0.95
1.51	-0.92	-0.94	-0.96
1.54	-0.92	-0.94	-0.97
1.57	-0.93	-0.95	-0.97
1.59	-0.94	-0.95	-0.98
1.62	-0.94	-0.96	-0.99
1.65	-0.95	-0.97	-1.00
1.68	-0.96	-0.98	-1.00
1.71	-0.96	-0.98	-1.00
1.74	-0.97	-0.99	-1.02
1.77	-0.98	-0.99	-1.02
1.80	-0.98	-1.00	-1.03
1.83	-0.99	-1.01	-1.04
1.86	-0.99	-1.02	-1.04
1.89	-1.00	-1.02	-1.05
1.93	-1.01	-1.03	-1.06
1.96	-1.01	-1.04	-1.06
2.00	-1.02	-1.04	-1.07
2.03	-1.03	-1.05	-1.08
2.07	-1.04	-1.06	-1.09

2.10	-1.04	-1.06	-1.10
2.14	-1.05	-1.07	-1.11
2.18	-1.06	-1.08	-1.11
2.21	-1.07	-1.09	-1.12
2.25	-1.08	-1.10	-1.13
2.29	-1.08	-1.10	-1.14
2.33	-1.09	-1.11	-1.15
2.37	-1.10	-1.12	-1.16
2.41	-1.11	-1.13	-1.17
2.45	-1.12	-1.14	-1.17
2.50	-1.12	-1.14	-1.18
2.54	-1.13	-1.16	-1.19
2.59	-1.14	-1.17	-1.20
2.63	-1.15	-1.17	-1.22
2.68	-1.16	-1.19	-1.23
2.72	-1.17	-1.19	-1.23
2.77	-1.17	-1.20	-1.24
2.82	-1.19	-1.21	-1.25
2.87	-1.19	-1.22	-1.27
2.92	-1.21	-1.24	-1.28
2.97	-1.22	-1.24	-1.28
3.02	-1.22	-1.25	-1.30
3.07	-1.24	-1.26	-1.31
3.13	-1.25	-1.27	-1.32
3.18	-1.26	-1.28	-1.33
3.24	-1.27	-1.30	-1.34
3.29	-1.28	-1.31	-1.35
3.35	-1.29	-1.32	-1.37
3.41	-1.30	-1.33	-1.38
3.47	-1.32	-1.35	-1.39
3.53	-1.33	-1.36	-1.40
3.59	-1.34	-1.37	-1.42
3.65	-1.35	-1.38	-1.43
3.72	-1.37	-1.39	-1.44
3.78	-1.38	-1.41	-1.46
3.85	-1.39	-1.42	-1.47
3.91	-1.41	-1.43	-1.48
3.98	-1.42	-1.45	-1.49
4.05	-1.43	-1.46	-1.51
4.12	-1.45	-1.47	-1.52
4.19	-1.46	-1.49	-1.53
4.27	-1.47	-1.50	-1.54
4.34	-1.49	-1.51	-1.55
4.42	-1.50	-1.53	-1.57
4.49	-1.51	-1.54	-1.58
4.57	-1.53	-1.56	-1.59
4.65	-1.54	-1.56	-1.61
4.73	-1.56	-1.58	-1.62
4.81	-1.57	-1.59	-1.63
4.90	-1.58	-1.61	-1.65
4.98	-1.59	-1.62	-1.66

5.07	-1.61	-1.63	-1.67
5.16	-1.62	-1.64	-1.68
5.25	-1.63	-1.66	-1.70
5.34	-1.64	-1.67	-1.71
5.43	-1.66	-1.68	-1.72
5.53	-1.67	-1.69	-1.73
5.62	-1.68	-1.70	-1.75
5.72	-1.69	-1.72	-1.76
5.82	-1.70	-1.73	-1.78
5.92	-1.71	-1.74	-1.78
6.03	-1.73	-1.75	-1.80
6.13	-1.74	-1.77	-1.81
6.24	-1.75	-1.78	-1.83
6.35	-1.76	-1.79	-1.84
6.46	-1.78	-1.81	-1.85
6.57	-1.79	-1.82	-1.87
6.68	-1.80	-1.84	-1.89
6.80	-1.81	-1.85	-1.90
6.92	-1.83	-1.86	-1.91
7.04	-1.85	-1.88	-1.93
7.16	-1.86	-1.90	-1.95
7.29	-1.88	-1.91	-1.96
7.41	-1.89	-1.93	-1.98
7.54	-1.92	-1.95	-2.00
7.67	-1.94	-1.97	-2.02
7.81	-1.95	-1.99	-2.04
7.94	-1.97	-2.01	-2.06
8.08	-1.99	-2.02	-2.07
8.22	-2.01	-2.04	-2.09
8.37	-2.03	-2.06	-2.11
8.51	-2.05	-2.08	-2.13
8.66	-2.07	-2.10	-2.15
8.81	-2.09	-2.12	-2.16
8.96	-2.11	-2.14	-2.18
9.12	-2.12	-2.15	-2.20
9.28	-2.14	-2.17	-2.21
9.44	-2.16	-2.19	-2.23
9.61	-2.17	-2.20	-2.25
9.77	-2.19	-2.22	-2.26
9.94	-2.20	-2.24	-2.28
10.12	-2.22	-2.25	-2.30
10.29	-2.23	-2.27	-2.32
10.47	-2.25	-2.29	-2.34
10.65	-2.26	-2.30	-2.35
10.84	-2.28	-2.32	-2.38
11.03	-2.30	-2.34	-2.40
11.22	-2.31	-2.36	-2.42
11.42	-2.34	-2.38	-2.44
11.61	-2.36	-2.41	-2.46
11.82	-2.38	-2.43	-2.49
12.02	-2.40	-2.45	-2.51

12.23	-2.42	-2.47	-2.52
12.45	-2.44	-2.49	-2.54
12.66	-2.46	-2.51	-2.57
12.88	-2.49	-2.53	-2.59
13.11	-2.50	-2.55	-2.61
13.34	-2.53	-2.57	-2.63
13.57	-2.55	-2.59	-2.65
13.80	-2.57	-2.61	-2.67
14.04	-2.59	-2.63	-2.69
14.29	-2.61	-2.65	-2.71
14.54	-2.63	-2.67	-2.74
14.79	-2.65	-2.70	-2.76
15.05	-2.67	-2.73	-2.79
15.31	-2.70	-2.76	-2.83
15.58	-2.74	-2.79	-2.86
15.85	-2.76	-2.82	-2.89
16.12	-2.79	-2.84	-2.90
16.41	-2.81	-2.86	-2.92
16.69	-2.84	-2.88	-2.95
16.98	-2.86	-2.91	-2.97
17.28	-2.89	-2.93	-2.99
17.58	-2.91	-2.96	-3.01
17.89	-2.93	-2.98	-3.03
18.20	-2.95	-3.00	-3.05
18.51	-2.96	-3.02	-3.08
18.84	-2.99	-3.04	-3.11
19.16	-3.01	-3.07	-3.14
19.50	-3.04	-3.10	-3.17
19.84	-3.08	-3.13	-3.20
20.18	-3.10	-3.16	-3.23
20.54	-3.13	-3.18	-3.25
20.89	-3.15	-3.21	-3.28
21.26	-3.18	-3.24	-3.31
21.63	-3.21	-3.26	-3.33
22.00	-3.23	-3.29	-3.36
22.39	-3.26	-3.32	-3.38
22.78	-3.28	-3.34	-3.41
23.17	-3.32	-3.37	-3.44
23.58	-3.37	-3.42	-3.48
23.99	-3.39	-3.44	-3.50
24.41	-3.41	-3.46	-3.53
24.83	-3.44	-3.49	-3.56
25.26	-3.47	-3.51	-3.59
25.70	-3.50	-3.54	-3.62
26.15	-3.52	-3.58	-3.65
26.61	-3.55	-3.61	-3.68
27.07	-3.58	-3.65	-3.71
27.54	-3.62	-3.70	-3.76
28.02	-3.65	-3.72	-3.79
28.51	-3.67	-3.75	-3.82
29.01	-3.70	-3.78	-3.85

29.51	-3.73	-3.81	-3.88
30.03	-3.76	-3.84	-3.91
30.55	-3.80	-3.87	-3.95
31.08	-3.84	-3.90	-4.00
31.62	-3.90	-3.95	-4.05
32.17	-3.92	-3.98	-4.07
32.73	-3.94	-4.01	-4.09
33.30	-3.97	-4.04	-4.12
33.88	-4.01	-4.07	-4.16
34.47	-4.04	-4.11	-4.20
35.08	-4.09	-4.15	-4.26
35.69	-4.15	-4.20	-4.32
36.31	-4.17	-4.22	-4.33
36.94	-4.19	-4.25	-4.35
37.58	-4.22	-4.29	-4.38
38.24	-4.26	-4.33	-4.42
38.90	-4.32	-4.38	-4.47
39.58	-4.40	-4.44	-4.53
40.27	-4.42	-4.46	-4.56
40.97	-4.44	-4.49	-4.58
41.69	-4.47	-4.52	-4.62
42.41	-4.51	-4.57	-4.66
43.15	-4.58	-4.65	-4.74
43.90	-4.63	-4.71	-4.78
44.67	-4.64	-4.70	-4.79
45.45	-4.67	-4.73	-4.83
46.24	-4.70	-4.76	-4.88
47.04	-4.77	-4.82	-4.96
47.86	-4.83	-4.87	-5.02
48.70	-4.85	-4.90	-5.02
49.54	-4.88	-4.94	-5.05
50.41	-4.92	-4.99	-5.10
51.29	-5.00	-5.08	-5.19
52.18	-5.04	-5.12	-5.22
53.09	-5.07	-5.13	-5.24
54.01	-5.12	-5.17	-5.28
54.95	-5.18	-5.24	-5.35
55.91	-5.24	-5.31	-5.41
56.89	-5.24	-5.31	-5.42
57.88	-5.28	-5.35	-5.46
58.88	-5.35	-5.42	-5.54
59.91	-5.42	-5.49	-5.60
60.95	-5.42	-5.50	-5.62
62.02	-5.46	-5.55	-5.67
63.10	-5.58	-5.65	-5.76
64.19	-5.67	-5.69	-5.81
65.31	-5.65	-5.71	-5.82
66.45	-5.71	-5.78	-5.89
67.61	-5.85	-5.91	-6.01
68.79	-5.81	-5.88	-6.01
69.98	-5.83	-5.91	-6.03

71.20	-5.96	-6.02	-6.12
72.44	-6.02	-6.06	-6.15
73.71	-6.03	-6.09	-6.21
74.99	-6.13	-6.21	-6.39
76.30	-6.17	-6.26	-6.43
77.62	-6.16	-6.24	-6.39
78.98	-6.27	-6.34	-6.47
80.35	-6.32	-6.39	-6.50
81.75	-6.31	-6.41	-6.54
83.18	-6.45	-6.54	-6.68
84.63	-6.52	-6.57	-6.71
86.10	-6.53	-6.60	-6.74
87.60	-6.67	-6.70	-6.89
89.12	-6.67	-6.69	-6.88
90.68	-6.76	-6.79	-7.01
92.26	-6.87	-6.87	-7.06
93.86	-6.87	-6.90	-7.07
95.50	-7.04	-7.07	-7.26
97.16	-6.98	-7.02	-7.19
98.86	-7.12	-7.15	-7.33
100.58	-7.18	-7.21	-7.38
102.33	-7.20	-7.27	-7.40
104.11	-7.33	-7.37	-7.49
105.93	-7.30	-7.37	-7.50
107.77	-7.55	-7.57	-7.62
109.65	-7.49	-7.54	-7.62
111.56	-7.70	-7.73	-7.80
113.50	-7.64	-7.67	-7.79
115.48	-7.77	-7.89	-7.96
117.49	-7.77	-7.83	-7.93
119.54	-7.96	-8.06	-8.14
121.62	-7.88	-8.00	-8.15
123.74	-8.05	-8.21	-8.32
125.89	-8.08	-8.16	-8.32
128.09	-8.29	-8.32	-8.56
130.32	-8.20	-8.28	-8.52
132.59	-8.43	-8.44	-8.62
134.90	-8.50	-8.52	-8.72
137.25	-8.43	-8.57	-8.74
139.64	-8.59	-8.77	-8.89
142.07	-8.61	-8.70	-8.90
144.54	-8.81	-8.78	-9.13
147.06	-8.91	-8.88	-9.22
149.62	-9.07	-8.94	-9.16
152.23	-9.27	-9.07	-9.31
154.88	-9.32	-9.18	-9.41
157.58	-9.20	-9.16	-9.43
160.32	-9.35	-9.24	-9.63
163.12	-9.50	-9.43	-9.79
165.96	-9.52	-9.46	-9.80
168.85	-9.71	-9.60	-9.85

171.79	-9.77	-9.80	-10.13
174.78	-9.90	-9.79	-10.13
177.83	-9.97	-9.80	-10.12
180.93	-10.11	-9.88	-10.23
184.08	-10.29	-10.15	-10.52
187.28	-10.34	-10.23	-10.51
190.55	-10.40	-10.25	-10.63
193.86	-10.51	-10.30	-10.72
197.24	-10.60	-10.48	-10.75
200.68	-10.85	-10.54	-10.91
204.17	-10.82	-10.73	-11.08
207.73	-11.00	-10.74	-11.17
211.35	-11.06	-11.00	-11.41
215.03	-11.23	-11.07	-11.34
218.78	-11.36	-11.06	-11.58
222.59	-11.42	-11.30	-11.64
226.46	-11.55	-11.44	-11.89
230.41	-11.92	-11.52	-11.86
234.42	-12.18	-11.76	-12.09
238.51	-12.33	-11.90	-12.32
242.66	-12.53	-11.79	-12.47
246.89	-12.61	-11.99	-12.36
251.19	-12.60	-12.09	-12.49
255.56	-12.82	-12.17	-12.61
260.02	-13.00	-12.22	-12.66
264.54	-13.06	-12.40	-12.81
269.15	-13.23	-12.79	-12.96
273.84	-13.61	-12.78	-13.28
278.61	-13.66	-12.76	-13.29
283.46	-13.58	-13.21	-13.38
288.40	-13.81	-13.26	-13.52
293.43	-14.16	-13.19	-13.71
298.54	-14.41	-13.44	-13.96
303.74	-14.75	-13.68	-14.24
309.03	-14.72	-13.97	-14.12
314.41	-14.95	-13.92	-14.56
319.89	-15.21	-14.07	-14.66
325.46	-15.14	-14.23	-14.62
331.13	-15.42	-14.39	-14.97
336.90	-15.60	-14.68	-15.17
342.77	-15.69	-14.83	-15.17
348.74	-16.18	-14.82	-15.40
354.81	-16.60	-15.20	-15.55
360.99	-16.68	-15.40	-15.55
367.28	-17.16	-15.37	-16.07
373.68	-16.98	-15.69	-16.32
380.19	-17.39	-15.60	-16.69
386.81	-17.75	-16.02	-16.70
393.55	-18.05	-16.16	-16.55
400.40	-18.03	-16.16	-17.06
407.38	-18.49	-16.74	-17.28

414.48	-18.46	-16.87	-17.30
421.70	-19.35	-16.85	-17.49
429.04	-19.58	-17.09	-17.53
436.51	-19.74	-17.65	-17.61
444.12	-19.50	-17.79	-18.26
451.86	-19.81	-17.84	-18.48
459.73	-20.25	-18.20	-18.46
467.73	-20.40	-18.65	-18.97
475.88	-20.63	-18.81	-19.31
484.17	-21.16	-18.78	-19.37
492.61	-21.64	-18.92	-19.88
501.19	-21.54	-19.08	-19.58
509.92	-21.92	-19.45	-19.73
518.80	-22.03	-19.90	-20.41
527.84	-22.23	-20.06	-20.83
537.03	-22.69	-20.32	-21.18
546.39	-23.01	-20.44	-21.57
555.90	-22.92	-20.84	-21.80
565.59	-23.16	-21.16	-21.72
575.44	-23.72	-21.42	-22.22
585.46	-24.24	-21.74	-22.35
595.66	-24.62	-21.86	-22.97
606.04	-24.69	-22.11	-22.99
616.59	-24.50	-22.82	-23.08
627.33	-25.07	-23.30	-23.18
638.26	-25.87	-23.70	-23.59
649.38	-26.13	-23.98	-23.72
660.69	-26.25	-23.84	-23.64
672.20	-26.38	-24.24	-23.45
683.91	-26.64	-24.65	-24.84
695.82	-26.67	-24.68	-24.36
707.94	-27.76	-24.91	-24.97
720.28	-27.87	-25.71	-25.41
732.82	-27.86	-26.29	-25.82
745.59	-28.44	-26.44	-26.60
758.58	-28.89	-26.62	-26.73
771.79	-28.57	-27.24	-26.87
785.23	-28.88	-27.83	-27.32
798.91	-29.64	-27.86	-27.19
812.83	-29.85	-28.65	-27.98
826.99	-30.10	-29.37	-28.28
841.39	-31.01	-29.48	-28.22
856.05	-31.86	-30.14	-28.75
870.96	-32.29	-29.81	-29.82
886.13	-32.55	-30.75	-30.50
901.57	-33.22	-30.37	-31.13
917.27	-33.53	-29.84	-30.23
933.25	-34.40	-31.20	-30.39
949.51	-35.61	-31.55	-31.29
966.05	-36.40	-31.92	-31.49
982.88	-36.09	-32.58	-32.21

1000.00

-37.83

-32.88

-33.81

30 AWG MADISON CABLE (ATTN in dB)

	tan / white	blue / white	orange / violet
10.00	-2.09	-2.09	-2.18
20.00	-2.89	-2.90	-3.07
30.00	-3.56	-3.56	-3.79
40.00	-4.27	-4.27	-4.45
50.00	-4.80	-4.81	-5.06
60.00	-5.37	-5.37	-5.68
70.00	-5.72	-5.72	-6.02
80.00	-6.15	-6.15	-6.47
90.00	-6.44	-6.44	-6.77
100.00	-6.84	-6.86	-7.23
110.00	-7.16	-7.18	-7.41
120.00	-7.65	-7.65	-7.91
130.00	-7.75	-7.76	-8.22
140.00	-8.13	-8.15	-8.58
150.00	-8.63	-8.62	-9.05
160.00	-9.03	-9.02	-9.56
170.00	-9.49	-9.50	-9.87
180.00	-10.00	-10.00	-10.31
190.00	-10.13	-10.14	-10.70
200.00	-10.44	-10.45	-10.87
210.00	-10.67	-10.66	-11.17
220.00	-10.91	-10.93	-11.35
230.00	-11.10	-11.12	-11.72
240.00	-11.65	-11.66	-12.04
250.00	-11.88	-11.89	-12.22
260.00	-12.29	-12.30	-12.46
270.00	-12.54	-12.53	-13.08
280.00	-13.12	-13.12	-13.66
290.00	-13.38	-13.40	-13.77
300.00	-13.96	-13.97	-14.12
310.00	-14.13	-14.13	-14.27
320.00	-14.52	-14.54	-14.78
330.00	-14.45	-14.46	-14.86
340.00	-14.66	-14.66	-15.06
350.00	-15.05	-15.04	-15.26
360.00	-15.21	-15.23	-15.27
370.00	-15.53	-15.49	-16.20
380.00	-15.96	-15.98	-16.47
390.00	-16.60	-16.59	-17.01
400.00	-17.05	-17.04	-16.91
410.00	-17.29	-17.29	-17.74
420.00	-17.57	-17.60	-17.86
430.00	-18.09	-18.09	-17.86
440.00	-18.35	-18.33	-17.82
450.00	-18.18	-18.19	-18.85
460.00	-18.36	-18.33	-18.39
470.00	-18.20	-18.21	-18.78
480.00	-18.53	-18.51	-19.38

490.00	-19.46	-19.40	-19.44
500.00	-19.82	-19.88	-19.89
510.00	-20.20	-20.15	-20.12
520.00	-20.73	-20.73	-21.27
530.00	-20.82	-20.86	-21.58
540.00	-21.14	-21.15	-21.87
550.00	-21.60	-21.59	-22.62
560.00	-21.27	-21.32	-22.62
570.00	-21.47	-21.46	-22.39
580.00	-22.29	-22.31	-22.50
590.00	-22.27	-22.26	-23.37
600.00	-23.32	-23.27	-23.17
610.00	-23.36	-23.38	-23.64
620.00	-23.96	-23.93	-24.08
630.00	-24.13	-24.11	-24.02
640.00	-25.06	-25.06	-24.48
650.00	-25.75	-25.83	-24.46
660.00	-25.56	-25.58	-24.28
670.00	-26.31	-26.26	-24.44
680.00	-26.47	-26.46	-24.27
690.00	-25.87	-25.89	-24.89
700.00	-26.55	-26.51	-25.13
710.00	-27.29	-27.20	-25.75
720.00	-27.84	-27.77	-26.39
730.00	-28.90	-28.81	-26.96
740.00	-29.37	-29.34	-27.49
750.00	-30.59	-30.65	-28.77
760.00	-30.99	-31.07	-28.86
770.00	-31.92	-31.93	-28.19
780.00	-32.26	-32.28	-28.37
790.00	-33.01	-33.01	-29.03
800.00	-33.08	-33.02	-27.83
810.00	-34.06	-33.93	-28.80
820.00	-32.87	-32.75	-28.85
830.00	-34.53	-34.44	-30.05
840.00	-35.94	-35.97	-30.73
850.00	-37.56	-37.45	-31.36
860.00	-39.20	-39.37	-31.58
870.00	-38.38	-38.51	-31.33
880.00	-38.25	-38.33	-32.49
890.00	-40.75	-41.18	-32.50
900.00	-40.74	-40.87	-32.99
910.00	-39.86	-40.07	-33.01
920.00	-40.91	-41.03	-35.18
930.00	-40.95	-41.22	-33.59
940.00	-42.34	-42.68	-34.36
950.00	-43.00	-43.06	-38.18
960.00	-42.65	-43.08	-35.79
970.00	-42.16	-42.29	-38.22
980.00	-42.83	-43.15	-40.22
990.00	-44.04	-44.37	-37.60

1000.00

-45.05

-45.68

-35.67

HP4396A REV3.01
DATE: Jan 31 2002

CHANNEL: 1
MEASURE TYPE: S21
FORMAT TYPE: LOG MAG
NUMBER of POINTS: 401
SWEEP TIME: 27 s
SWEEP TYPE: LIN FREQ
SOURCE POWER: 0 dBm
IF BANDWIDTH: 30 Hz

Frequency	tan / white	blue / white	orange / violet
1.00	-0.81	-0.81	-0.84
3.50	-1.24	-1.29	-1.34
6.00	-1.64	-1.69	-1.74
8.49	-1.93	-2.00	-2.07
10.99	-2.18	-2.24	-2.31
13.49	-2.40	-2.48	-2.56
15.99	-2.61	-2.70	-2.80
18.48	-2.80	-2.90	-2.99
20.98	-2.98	-3.08	-3.18
23.48	-3.17	-3.27	-3.35
25.98	-3.29	-3.41	-3.51
28.47	-3.47	-3.61	-3.68
30.97	-3.62	-3.73	-3.84
33.47	-3.78	-3.90	-3.98
35.97	-3.92	-4.04	-4.18
38.46	-4.04	-4.16	-4.28
40.96	-4.18	-4.31	-4.42
43.46	-4.31	-4.48	-4.58
45.96	-4.44	-4.56	-4.68
48.45	-4.57	-4.69	-4.86
50.95	-4.66	-4.81	-4.96
53.45	-4.78	-4.94	-5.08
55.95	-4.93	-5.12	-5.26
58.44	-5.01	-5.16	-5.32
60.94	-5.13	-5.30	-5.45
63.44	-5.24	-5.43	-5.57
65.94	-5.34	-5.50	-5.65
68.43	-5.57	-5.71	-5.86
70.93	-5.56	-5.72	-5.87
73.43	-5.68	-5.84	-6.00
75.93	-5.80	-6.01	-6.24
78.42	-5.85	-6.03	-6.19
80.92	-5.99	-6.17	-6.33
83.42	-6.05	-6.23	-6.43
85.92	-6.20	-6.33	-6.51
88.41	-6.30	-6.46	-6.68

90.91	-6.36	-6.49	-6.71
93.41	-6.58	-6.66	-6.84
95.91	-6.74	-6.82	-7.00
98.40	-6.74	-6.84	-6.97
100.90	-6.82	-7.06	-7.16
103.40	-6.91	-7.14	-7.19
105.90	-7.04	-7.18	-7.26
108.39	-7.19	-7.30	-7.47
110.89	-7.27	-7.38	-7.49
113.39	-7.28	-7.46	-7.64
115.89	-7.29	-7.60	-7.74
118.38	-7.48	-7.73	-7.75
120.88	-7.71	-7.81	-7.95
123.38	-7.60	-7.82	-7.96
125.88	-7.73	-7.88	-8.07
128.37	-7.89	-8.06	-8.45
130.87	-7.81	-8.00	-8.30
133.37	-7.91	-8.19	-8.43
135.87	-8.06	-8.31	-8.53
138.36	-8.06	-8.26	-8.51
140.86	-8.19	-8.48	-8.66
143.36	-8.24	-8.42	-8.70
145.86	-8.37	-8.51	-8.88
148.35	-8.47	-8.61	-9.00
150.85	-8.63	-8.67	-9.00
153.35	-8.79	-8.75	-9.15
155.85	-8.77	-8.82	-9.11
158.34	-8.79	-8.97	-9.27
160.84	-9.00	-8.99	-9.42
163.34	-8.95	-9.03	-9.35
165.84	-9.05	-9.16	-9.56
168.33	-9.17	-9.32	-9.63
170.83	-9.15	-9.26	-9.52
173.33	-9.19	-9.52	-9.90
175.83	-9.55	-9.54	-9.82
178.32	-9.50	-9.55	-9.80
180.82	-9.69	-9.66	-10.00
183.32	-9.66	-9.72	-10.11
185.82	-9.74	-9.83	-10.26
188.31	-9.78	-9.95	-10.22
190.81	-9.69	-10.05	-10.45
193.31	-9.99	-10.11	-10.53
195.81	-9.99	-9.99	-10.43
198.30	-9.89	-10.27	-10.70
200.80	-10.22	-10.49	-10.75
203.30	-10.35	-10.14	-10.53
205.80	-10.37	-10.30	-10.77
208.29	-10.42	-10.63	-11.07
210.79	-10.67	-10.60	-11.15
213.29	-11.12	-10.62	-11.15
215.79	-10.95	-10.79	-11.05

218.28	-10.90	-10.95	-11.33
220.78	-11.15	-10.89	-11.29
223.28	-11.01	-10.96	-11.25
225.78	-10.96	-11.29	-11.72
228.27	-11.21	-11.26	-11.76
230.77	-11.24	-11.31	-11.64
233.27	-11.67	-11.55	-11.95
235.77	-11.76	-11.64	-11.83
238.26	-11.82	-11.59	-12.07
240.76	-11.86	-11.87	-12.21
243.26	-11.82	-11.74	-12.11
245.76	-12.16	-11.61	-12.33
248.25	-12.08	-11.73	-12.14
250.75	-12.00	-12.00	-12.39
253.25	-12.08	-11.98	-12.31
255.75	-12.03	-11.99	-12.26
258.24	-12.20	-12.19	-12.46
260.74	-12.27	-12.04	-12.48
263.24	-12.33	-12.06	-12.46
265.74	-12.53	-12.39	-12.66
268.23	-12.50	-12.36	-12.57
270.73	-12.52	-12.61	-12.71
273.23	-12.56	-12.76	-13.17
275.73	-12.59	-12.78	-13.30
278.22	-13.04	-12.57	-13.27
280.72	-12.80	-12.59	-13.31
283.22	-12.84	-12.85	-13.06
285.72	-13.17	-13.12	-13.15
288.21	-13.02	-13.04	-13.18
290.71	-13.02	-13.28	-13.34
293.21	-13.41	-13.18	-13.40
295.71	-13.56	-13.09	-13.51
298.20	-13.60	-13.24	-13.84
300.70	-13.47	-13.27	-13.63
303.20	-13.63	-13.52	-13.91
305.70	-13.76	-13.54	-14.12
308.19	-13.62	-13.73	-13.79
310.69	-13.91	-13.88	-13.89
313.19	-14.07	-13.94	-14.17
315.69	-13.82	-13.91	-14.45
318.18	-14.11	-13.90	-14.57
320.68	-14.37	-13.83	-14.55
323.18	-14.43	-13.92	-14.68
325.68	-14.39	-13.79	-14.59
328.17	-14.23	-14.06	-14.61
330.67	-14.29	-14.40	-14.89
333.17	-14.30	-14.53	-14.93
335.67	-14.35	-14.69	-14.96
338.16	-14.60	-14.89	-15.33
340.66	-14.55	-14.81	-14.98
343.16	-14.80	-14.71	-15.12

345.66	-14.60	-15.10	-15.07
348.15	-14.57	-15.09	-14.87
350.65	-15.04	-14.83	-15.14
353.15	-14.96	-15.17	-15.50
355.65	-14.98	-15.34	-15.62
358.14	-15.35	-15.18	-15.43
360.64	-15.31	-15.41	-15.29
363.14	-15.40	-15.48	-15.54
365.64	-15.39	-15.35	-15.93
368.13	-15.47	-15.31	-16.02
370.63	-15.61	-15.49	-16.26
373.13	-15.62	-15.60	-15.99
375.63	-15.88	-15.65	-16.07
378.12	-15.91	-15.92	-16.14
380.62	-15.78	-15.97	-16.20
383.12	-15.95	-15.98	-16.43
385.62	-16.08	-16.18	-16.41
388.11	-16.21	-16.48	-16.26
390.61	-16.29	-16.31	-16.46
393.11	-16.38	-16.33	-16.59
395.61	-16.58	-16.57	-16.55
398.10	-16.48	-16.37	-16.40
400.60	-16.83	-16.37	-16.39
403.10	-16.85	-16.68	-16.82
405.60	-16.67	-16.86	-17.13
408.09	-16.96	-16.83	-17.12
410.59	-16.83	-17.08	-17.12
413.09	-16.67	-17.20	-17.10
415.59	-17.05	-17.05	-17.09
418.08	-17.03	-17.18	-17.06
420.58	-17.02	-17.10	-17.06
423.08	-17.33	-17.10	-17.33
425.58	-17.52	-17.43	-17.38
428.07	-17.60	-17.49	-17.25
430.57	-17.64	-17.15	-17.32
433.07	-17.85	-17.48	-17.37
435.57	-17.57	-17.90	-17.29
438.06	-17.68	-18.17	-17.31
440.56	-18.45	-18.41	-17.49
443.06	-18.26	-18.36	-17.74
445.56	-18.21	-18.29	-17.86
448.05	-18.32	-18.25	-18.34
450.55	-18.23	-18.07	-18.71
453.05	-18.14	-18.09	-18.38
455.55	-18.13	-18.23	-18.21
458.04	-18.14	-18.63	-18.27
460.54	-18.10	-18.77	-18.28
463.04	-18.04	-18.80	-18.34
465.54	-18.18	-18.99	-18.39
468.03	-18.20	-18.93	-18.47
470.53	-18.36	-19.08	-18.57

473.03	-18.55	-19.55	-18.78
475.53	-18.60	-19.64	-18.94
478.02	-18.69	-19.84	-18.86
480.52	-18.65	-20.06	-19.19
483.02	-18.64	-19.95	-19.30
485.52	-18.97	-19.90	-19.09
488.01	-19.35	-19.65	-19.17
490.51	-19.50	-19.65	-19.26
493.01	-19.41	-19.69	-19.17
495.51	-19.70	-19.48	-19.44
498.00	-19.76	-19.94	-19.57
500.50	-19.69	-19.91	-19.15
503.00	-19.63	-19.72	-19.10
505.50	-19.92	-19.94	-19.29
507.99	-19.93	-20.28	-19.30
510.49	-20.11	-20.07	-19.25
512.99	-20.33	-20.33	-19.65
515.49	-19.94	-20.69	-19.92
517.98	-19.75	-20.94	-20.09
520.48	-20.26	-21.14	-20.48
522.98	-20.59	-21.07	-20.39
525.48	-20.13	-20.84	-20.19
527.97	-20.25	-20.94	-20.59
530.47	-20.43	-21.38	-20.72
532.97	-20.24	-21.51	-20.64
535.47	-20.51	-21.23	-21.09
537.96	-20.96	-21.41	-21.39
540.46	-20.65	-21.35	-20.91
542.96	-20.96	-21.77	-20.85
545.46	-21.38	-22.77	-21.61
547.95	-21.02	-22.35	-21.59
550.45	-21.30	-21.38	-21.71
552.95	-22.09	-21.79	-22.33
555.45	-22.03	-21.92	-21.96
557.94	-21.19	-21.55	-21.53
560.44	-21.44	-22.15	-22.06
562.94	-21.71	-23.00	-22.22
565.44	-20.95	-22.48	-21.21
567.93	-21.23	-21.91	-21.52
570.43	-21.97	-22.62	-22.24
572.93	-21.72	-22.53	-22.19
575.43	-21.84	-22.54	-22.11
577.92	-22.70	-23.34	-22.15
580.42	-22.74	-22.86	-21.99
582.92	-22.68	-22.59	-22.47
585.42	-23.35	-23.63	-23.28
587.91	-22.91	-23.30	-22.52
590.41	-22.19	-22.91	-22.57
592.91	-23.41	-24.08	-23.74
595.41	-24.20	-24.24	-22.66
597.90	-23.26	-23.28	-21.79

600.40	-23.85	-23.65	-23.08
602.90	-25.14	-24.26	-22.97
605.40	-23.55	-22.80	-21.92
607.89	-23.07	-23.20	-23.32
610.39	-24.41	-24.71	-23.79
612.89	-23.58	-23.61	-22.23
615.39	-22.78	-23.68	-22.97
617.88	-24.34	-25.73	-24.66
620.38	-24.43	-24.65	-22.65
622.88	-22.72	-24.26	-22.60
625.38	-23.95	-26.55	-24.53
627.87	-25.42	-25.54	-22.49
630.37	-23.15	-24.12	-21.83
632.87	-23.85	-26.55	-24.48
635.37	-26.89	-26.90	-23.52
637.86	-24.31	-24.34	-21.86
640.36	-23.73	-26.12	-24.36
642.86	-27.37	-28.91	-24.63
645.36	-25.63	-24.27	-22.12
647.85	-23.79	-24.64	-23.87
650.35	-27.20	-30.14	-25.86
652.85	-28.07	-25.73	-22.25
655.35	-24.21	-24.43	-22.91
657.84	-25.95	-29.59	-26.53
660.34	-31.10	-27.12	-22.74
662.84	-24.70	-23.52	-22.23
665.34	-24.74	-27.37	-26.89
667.83	-31.66	-29.08	-23.63
670.33	-26.00	-23.52	-21.51
672.83	-23.33	-25.67	-26.25
675.33	-29.35	-31.23	-25.32
677.82	-28.45	-23.92	-21.05
680.32	-23.40	-24.92	-23.84
682.82	-26.19	-34.88	-27.67
685.32	-33.53	-25.28	-21.65
687.81	-23.38	-24.06	-23.15
690.31	-24.16	-33.33	-30.69
692.81	-38.06	-27.22	-22.30
695.31	-24.21	-22.98	-21.62
697.80	-23.10	-28.69	-30.07
700.30	-32.72	-29.32	-22.93
702.80	-26.37	-22.14	-20.57
705.30	-21.76	-24.68	-27.59
707.79	-25.69	-35.91	-25.83
710.29	-33.67	-21.86	-19.94
712.79	-22.86	-22.39	-22.98
715.29	-23.44	-38.91	-31.64
717.78	-42.06	-24.59	-21.42
720.28	-25.18	-23.19	-22.94
722.78	-23.38	-35.22	-34.56
725.28	-36.46	-25.11	-22.24

727.77	-25.98	-22.77	-22.44
730.27	-22.26	-31.87	-39.91
732.77	-28.28	-26.25	-22.60
735.27	-26.99	-21.45	-21.10
737.76	-21.14	-27.60	-32.24
740.26	-23.86	-27.05	-23.48
742.76	-28.22	-20.80	-19.74
745.26	-20.49	-23.08	-26.10
747.75	-20.73	-27.90	-24.24
750.25	-25.63	-19.85	-18.69
752.75	-20.27	-20.14	-21.43
755.25	-18.65	-25.16	-24.26
757.74	-21.64	-18.87	-17.58
760.24	-20.25	-17.05	-17.41
762.74	-16.77	-20.28	-22.06
765.24	-17.91	-17.83	-17.15
767.73	-18.27	-15.03	-15.15
770.23	-15.18	-16.91	-18.03
772.73	-14.54	-16.99	-16.95
775.23	-15.61	-13.86	-13.35
777.72	-14.42	-13.65	-14.84
780.22	-12.71	-14.93	-16.32
782.72	-13.81	-12.89	-12.52
785.22	-14.49	-11.95	-12.59
787.71	-12.35	-13.60	-14.67
790.21	-12.27	-12.60	-12.24
792.71	-13.69	-11.45	-10.91
795.21	-12.77	-12.53	-12.91
797.70	-11.84	-13.46	-13.18
800.20	-13.57	-11.83	-11.06
802.70	-13.67	-12.06	-12.55
805.20	-12.24	-13.72	-14.64
807.69	-13.18	-12.22	-11.94
810.19	-14.54	-11.71	-12.15
812.69	-13.14	-13.50	-15.41
815.19	-13.16	-13.12	-13.44
817.68	-15.12	-11.68	-12.40
820.18	-14.31	-12.89	-15.30
822.68	-13.44	-13.65	-14.44
825.18	-15.22	-11.80	-12.38
827.67	-15.35	-12.76	-14.53
830.17	-13.63	-14.60	-15.61
832.67	-14.32	-13.02	-13.09
835.17	-15.37	-13.09	-14.02
837.66	-13.82	-15.03	-16.59
840.16	-13.81	-13.87	-13.92
842.66	-15.66	-13.14	-13.59
845.16	-15.00	-14.97	-16.87
847.65	-14.18	-14.64	-15.27
850.15	-15.83	-13.35	-13.87
852.65	-15.96	-14.71	-16.59

855.15	-14.51	-15.41	-16.46
857.64	-15.47	-13.71	-14.02
860.14	-16.74	-14.36	-15.80
862.64	-15.17	-16.05	-17.62
865.14	-14.96	-14.31	-14.23
867.63	-16.74	-14.02	-15.17
870.13	-15.54	-16.09	-18.17
872.63	-14.45	-14.73	-14.84
875.13	-16.28	-13.95	-14.98
877.62	-15.83	-16.16	-18.17
880.12	-14.41	-15.47	-15.45
882.62	-15.88	-14.05	-14.77
885.12	-16.53	-15.64	-16.89
887.61	-15.08	-16.02	-16.45
890.11	-15.33	-14.36	-14.46
892.61	-16.80	-15.39	-16.38
895.11	-15.79	-16.52	-16.88
897.60	-15.24	-14.69	-14.77
900.10	-16.94	-14.76	-15.68
902.60	-16.68	-16.63	-17.20
905.10	-15.37	-14.75	-15.13
907.59	-16.67	-14.35	-14.91
910.09	-16.97	-16.37	-17.18
912.59	-15.03	-15.36	-15.25
915.09	-15.67	-14.23	-14.65
917.58	-16.86	-15.88	-16.31
920.08	-15.13	-15.64	-15.82
922.58	-15.04	-14.02	-14.49
925.08	-16.61	-15.17	-15.71
927.57	-15.55	-15.81	-16.58
930.07	-14.69	-13.95	-14.48
932.57	-16.13	-14.63	-15.15
935.07	-16.07	-15.63	-16.71
937.56	-14.71	-13.93	-14.49
940.06	-15.69	-13.98	-14.63
942.56	-16.06	-15.34	-16.44
945.06	-14.49	-14.37	-14.57
947.55	-14.50	-13.84	-14.35
950.05	-15.96	-15.22	-15.67
952.55	-14.48	-14.53	-14.74
955.05	-14.00	-13.42	-13.78
957.54	-15.40	-14.55	-14.66
960.04	-14.42	-14.43	-14.84
962.54	-13.67	-13.21	-13.34
965.04	-14.83	-13.92	-13.98
967.53	-14.83	-14.18	-14.41
970.03	-13.76	-13.05	-13.17
972.53	-14.38	-13.12	-13.27
975.03	-15.05	-14.03	-14.02
977.52	-13.69	-13.04	-13.32
980.02	-13.62	-12.65	-12.88

982.52	-14.43	-13.58	-13.78
985.02	-13.33	-12.98	-13.70
987.51	-12.90	-12.09	-12.74
990.01	-13.86	-13.21	-13.29
992.51	-13.73	-12.85	-13.88
995.01	-12.69	-11.81	-12.63
997.50	-13.15	-12.58	-12.90
1000.00	-13.33	-12.73	-14.16