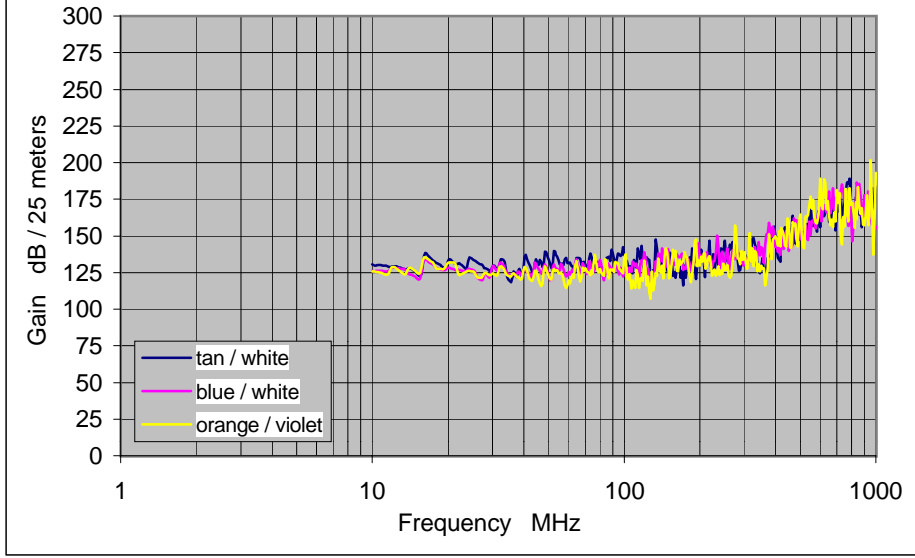


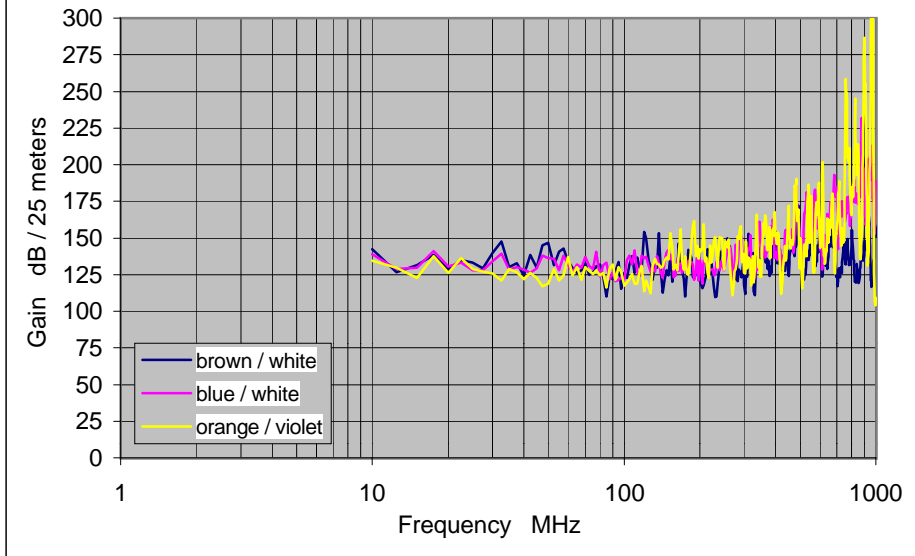
Spectra-Strip Data

Sample #2 Round Cable 30 AWG Solid Tinned



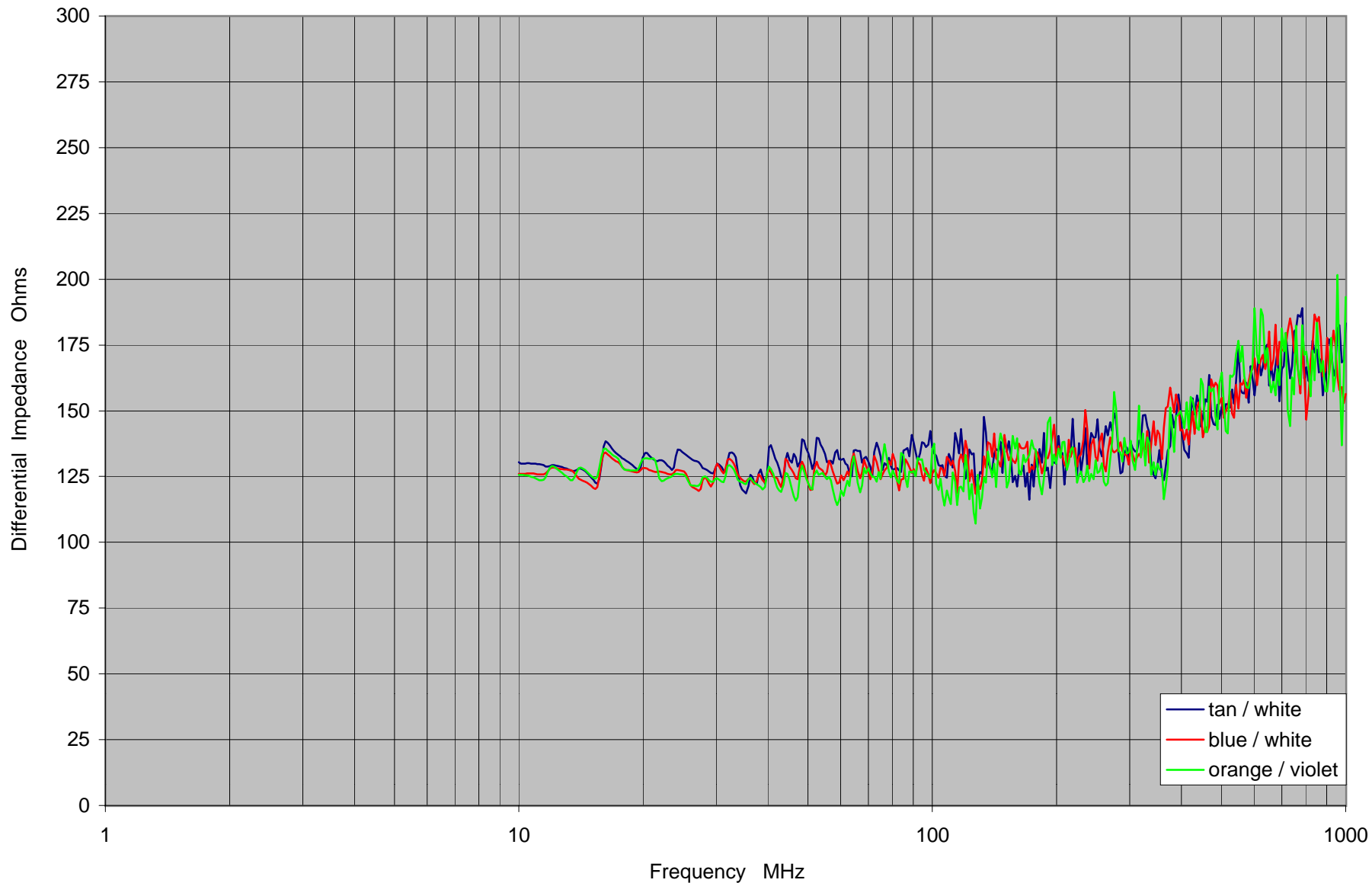
Madison Data

Sample #2 Round Cable 30 AWG Solid Tinned



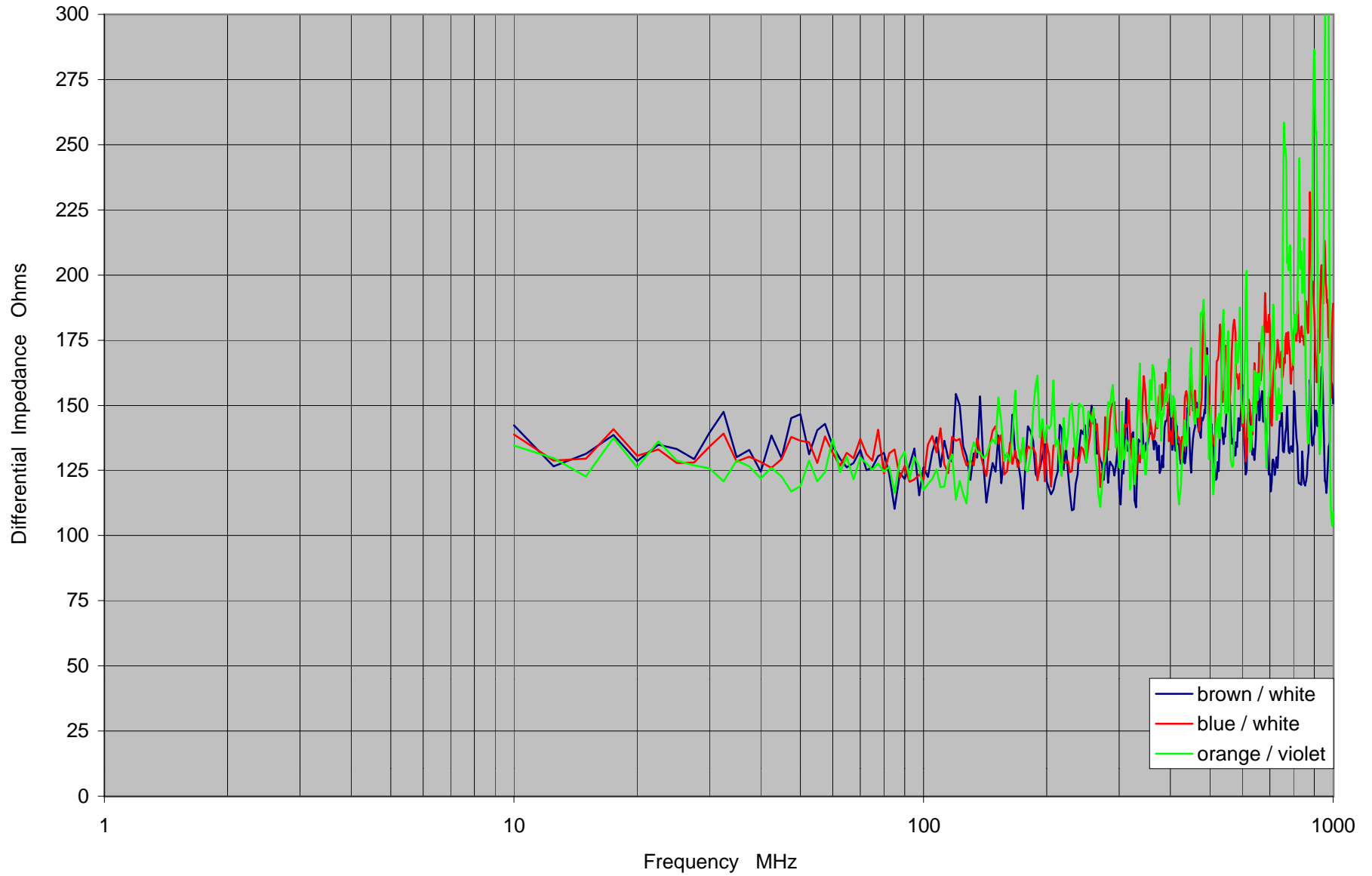
IMPEDANCE

Sample #2 Round Cable 30 AWG Solid Tinned



IMPEDANCE

Sample #2 Round Cable 30 AWG Solid Tinned



SAVED BY:
 TITLE:
 COMMENTS:
 DATE: 2/9/01
 TIME: 2:09 PM

Freq MHz	$2\sqrt{Z_o Z_s}$ tan / white	$2\sqrt{Z_o Z_s}$ blue / white	$2\sqrt{Z_o Z_s}$ orange / violet
10.00	130.41	126.05	125.55
10.12	129.94	125.95	125.62
10.23	129.88	125.98	125.57
10.35	129.86	126.04	125.46
10.47	130.08	126.18	125.39
10.59	130.01	126.25	125.23
10.72	129.93	126.13	124.95
10.84	129.93	126.23	124.71
10.96	129.87	126.06	124.37
11.09	129.78	125.89	124.02
11.22	129.71	125.83	123.62
11.35	129.55	125.74	123.54
11.48	129.32	125.77	123.79
11.61	128.87	126.23	124.64
11.75	128.71	127.00	126.54
11.89	128.97	128.04	128.40
12.02	129.25	128.36	128.96
12.16	129.27	128.43	128.79
12.30	129.21	128.27	128.18
12.45	129.04	128.10	127.49
12.59	128.77	127.93	126.88
12.74	128.51	127.79	126.30
12.88	128.26	127.64	125.62
13.03	127.97	127.61	125.00
13.18	127.69	127.48	124.32
13.34	127.35	127.44	123.67
13.49	127.08	127.07	123.53
13.65	127.03	126.30	124.62
13.80	127.56	125.03	126.70
13.96	128.11	124.16	128.14
14.13	128.04	123.72	128.41
14.29	127.67	123.43	128.03
14.45	127.08	123.05	127.45
14.62	126.31	122.61	126.73
14.79	125.63	122.14	125.98
14.96	124.73	121.54	125.22
15.14	123.75	120.71	124.52
15.31	122.66	120.28	124.14
15.49	122.22	121.06	124.90
15.67	123.96	124.89	128.20
15.85	130.11	130.74	133.05
16.03	136.41	133.86	135.54
16.22	138.40	134.12	135.57

16.41	137.91	133.49	134.91
16.60	136.73	132.75	134.09
16.79	135.66	131.93	133.46
16.98	134.78	131.40	132.90
17.18	133.90	130.88	132.40
17.38	133.19	130.43	131.67
17.58	132.61	129.67	130.33
17.78	132.01	128.59	128.51
17.99	131.58	127.91	127.59
18.20	131.07	127.55	127.46
18.41	130.47	127.35	127.41
18.62	129.94	127.13	127.38
18.84	129.32	126.96	127.36
19.05	128.66	126.73	127.28
19.28	127.88	126.56	127.35
19.50	127.49	126.69	128.26
19.72	128.68	127.42	130.04
19.95	132.14	128.29	131.59
20.18	133.99	128.22	131.97
20.42	133.92	127.99	131.90
20.65	133.12	127.58	131.77
20.89	132.32	127.31	131.83
21.13	131.60	127.02	131.86
21.38	131.04	126.83	131.01
21.63	130.76	126.78	128.04
21.88	131.18	126.89	124.38
22.13	131.27	126.79	123.31
22.39	130.78	126.65	123.48
22.65	130.10	126.37	123.91
22.91	129.21	126.06	124.32
23.17	128.33	125.82	124.70
23.44	127.49	125.77	125.17
23.71	128.36	126.42	125.74
23.99	132.75	127.41	126.01
24.27	135.33	127.53	126.02
24.55	135.11	127.26	125.85
24.83	134.42	127.08	125.77
25.12	133.70	126.84	125.67
25.41	133.14	126.01	124.93
25.70	132.55	123.84	123.11
26.00	131.85	121.83	121.78
26.30	131.45	121.09	121.56
26.61	131.03	120.65	121.53
26.92	130.76	120.05	121.44
27.23	130.40	119.55	121.53
27.54	129.51	120.30	122.53
27.86	128.16	123.53	124.64
28.18	127.86	124.81	125.10
28.51	127.51	123.80	124.50
28.84	126.92	122.29	123.68
29.17	126.35	121.22	122.99

29.51	126.17	122.90	123.00
29.85	127.98	128.22	124.06
30.20	129.89	129.89	124.25
30.55	129.59	128.73	123.71
30.90	128.57	127.19	123.03
31.26	127.32	126.21	122.79
31.62	126.80	127.98	125.13
31.99	130.78	131.47	128.92
32.36	134.05	131.83	129.39
32.73	134.12	130.96	128.68
33.11	133.68	129.94	127.75
33.50	132.28	128.26	126.01
33.88	127.03	125.85	123.86
34.28	121.67	124.51	123.05
34.67	120.12	123.85	122.77
35.08	119.26	123.22	122.36
35.48	118.51	123.03	122.16
35.89	121.32	124.22	123.89
36.31	125.57	124.28	124.44
36.73	124.81	123.13	123.67
37.15	122.71	122.15	122.72
37.58	122.04	123.38	122.02
38.02	126.27	125.78	121.63
38.46	127.72	125.14	120.95
38.90	125.13	123.53	120.16
39.36	122.25	122.62	120.91
39.81	125.44	125.66	126.17
40.27	136.02	127.83	128.72
40.74	137.00	126.51	127.79
41.21	134.13	124.91	126.08
41.69	131.78	124.70	123.05
42.17	130.33	124.29	120.73
42.66	128.07	122.46	119.69
43.15	125.16	121.08	119.11
43.65	123.75	125.19	121.96
44.16	131.22	131.71	126.35
44.67	134.04	131.03	125.92
45.19	131.32	128.86	123.92
45.71	130.28	127.44	120.29
46.24	133.55	126.11	117.41
46.77	132.23	124.30	115.85
47.32	128.78	124.01	117.13
47.86	130.59	129.18	126.16
48.42	139.20	130.71	129.22
48.98	138.67	128.89	127.08
49.54	135.83	125.84	124.49
50.12	133.70	122.10	122.37
50.70	131.17	119.82	120.55
51.29	127.84	120.08	120.02
51.88	130.02	127.95	125.67
52.48	139.73	130.55	127.32

53.09	139.45	128.32	125.55
53.70	137.17	127.87	126.00
54.33	135.78	127.34	126.44
54.95	133.61	125.32	124.96
55.59	130.45	126.77	123.96
56.23	130.86	130.97	124.97
56.89	131.07	129.61	123.55
57.54	129.94	126.97	120.04
58.21	134.24	124.41	116.19
58.88	135.11	122.26	114.23
59.57	131.61	122.73	115.98
60.26	131.38	125.37	119.77
60.95	131.67	123.55	117.65
61.66	129.85	125.12	120.74
62.37	129.35	127.01	123.44
63.10	126.65	125.21	121.46
63.83	124.99	131.21	129.36
64.57	134.84	133.87	132.70
65.31	135.03	130.64	128.20
66.07	134.80	127.11	122.58
66.83	134.71	124.26	118.93
67.61	130.31	126.48	121.65
68.39	131.94	131.42	128.30
69.18	132.53	129.19	126.23
69.98	130.63	126.66	128.07
70.79	128.75	123.97	126.18
71.61	125.31	126.98	124.93
72.44	134.33	132.84	124.87
73.28	137.79	130.36	123.11
74.13	135.58	127.22	126.76
74.99	132.75	124.01	124.19
75.86	127.52	125.87	131.53
76.74	130.05	127.35	137.26
77.62	129.23	128.40	131.99
78.52	132.20	130.86	126.97
79.43	128.98	129.41	124.77
80.35	127.58	133.57	127.32
81.28	127.95	130.72	124.99
82.22	128.22	123.23	123.50
83.18	127.21	119.64	122.50
84.14	126.79	123.80	133.88
85.11	134.98	124.23	133.04
86.10	135.22	131.51	124.47
87.10	135.77	130.30	120.95
88.10	132.65	128.66	126.89
89.13	140.76	126.28	126.56
90.16	137.93	127.89	127.18
91.20	134.12	125.18	125.16
92.26	130.86	130.59	132.11
93.33	133.77	129.51	131.45
94.41	138.03	125.72	131.59

95.50	137.64	123.37	127.49
96.61	136.17	128.17	126.65
97.72	137.05	125.75	125.18
98.86	142.34	122.47	124.35
100.00	135.96	126.09	135.34
101.16	133.77	127.57	137.44
102.33	132.91	126.33	122.24
103.51	129.30	124.58	119.95
104.71	129.04	128.36	124.19
105.93	129.31	127.91	117.80
107.15	125.21	125.34	113.98
108.39	124.53	132.47	119.65
109.65	133.61	131.38	116.89
110.92	131.80	129.33	114.51
112.20	128.43	131.06	126.50
113.50	141.61	127.05	123.04
114.82	138.33	118.86	114.22
116.14	133.86	131.05	120.82
117.49	143.13	133.50	121.25
118.85	132.11	130.48	119.37
120.23	124.08	138.67	133.21
121.62	127.97	135.27	127.91
123.03	135.26	123.27	116.37
124.45	133.42	127.49	122.10
125.89	133.76	123.00	111.28
127.35	120.46	118.36	107.18
128.82	122.10	122.12	125.60
130.32	126.83	120.29	112.82
131.83	125.95	123.43	116.87
133.35	147.65	132.63	124.78
134.90	141.70	128.43	122.75
136.46	131.22	138.03	134.57
138.04	128.04	137.26	128.50
139.64	127.49	132.56	124.75
141.25	133.62	141.45	129.90
142.89	135.45	132.01	121.05
144.54	134.75	130.86	136.22
146.22	138.23	128.71	141.35
147.91	126.39	133.42	138.56
149.62	139.98	140.84	133.42
151.36	134.39	134.59	120.88
153.11	138.34	131.12	123.30
154.88	133.16	132.72	131.20
156.68	122.86	131.20	140.50
158.49	125.19	130.13	135.63
160.32	121.22	132.16	139.61
162.18	127.34	137.43	126.17
164.06	125.98	135.90	125.67
165.96	129.17	135.55	133.25
167.88	121.20	135.92	130.53
169.82	126.30	138.18	131.84

171.79	116.11	126.54	133.21
173.78	129.56	128.71	138.81
175.79	121.21	127.68	135.63
177.83	131.46	134.81	135.32
179.89	128.32	133.96	127.99
181.97	135.51	131.56	122.50
184.08	130.30	126.11	118.28
186.21	141.58	129.05	124.39
188.36	127.30	132.37	131.32
190.55	128.35	131.88	145.51
192.75	120.55	135.14	147.48
194.98	129.96	139.96	129.37
197.24	130.48	144.81	133.39
199.53	129.97	132.42	129.82
201.84	140.45	136.60	135.59
204.17	132.36	133.33	132.13
206.54	134.05	132.66	137.96
208.93	121.87	129.78	138.17
211.35	131.97	128.27	127.46
213.80	135.17	139.02	130.30
216.27	134.07	132.47	135.05
218.78	146.86	135.31	136.14
221.31	130.64	135.78	131.52
223.87	125.28	128.70	122.61
226.46	137.63	132.46	125.52
229.09	126.60	133.40	127.00
231.74	133.61	139.03	122.80
234.42	143.39	150.19	124.38
237.14	128.25	142.84	129.24
239.88	135.40	128.06	123.25
242.66	141.58	137.19	125.92
245.47	139.67	139.35	124.01
248.31	139.98	132.50	131.14
251.19	146.73	130.99	126.43
254.10	135.86	138.05	126.94
257.04	132.69	141.44	130.06
260.02	138.65	129.15	123.05
263.03	144.22	126.99	121.55
266.07	140.70	133.92	122.54
269.15	145.70	139.97	131.75
272.27	142.28	135.11	138.25
275.42	149.12	134.07	157.15
278.61	146.84	134.72	150.80
281.84	133.79	135.55	134.73
285.10	126.22	138.05	134.12
288.40	126.76	134.75	130.70
291.74	133.52	133.49	139.70
295.12	135.99	132.99	133.72
298.54	132.10	129.62	134.25
302.00	137.89	136.19	138.67
305.49	135.78	133.47	131.04

309.03	134.46	130.66	127.57
312.61	134.66	132.26	135.07
316.23	138.64	133.66	151.98
319.89	138.73	132.22	132.34
323.59	148.22	136.67	141.40
327.34	148.34	135.29	129.24
331.13	144.16	142.30	139.86
334.97	141.67	130.19	137.92
338.84	129.83	137.37	125.66
342.77	125.58	146.03	130.54
346.74	124.41	136.89	125.64
350.75	129.40	142.57	129.89
354.81	135.04	141.01	127.70
358.92	125.50	131.62	127.83
363.08	123.65	143.67	116.36
367.28	128.93	151.11	121.61
371.53	134.88	151.67	128.03
375.84	136.62	158.80	151.16
380.19	148.38	154.19	143.29
384.59	143.53	149.38	134.26
389.04	147.69	156.22	147.79
393.55	156.17	152.32	148.56
398.11	150.06	142.51	149.93
402.72	140.67	142.80	147.31
407.38	135.11	139.07	143.42
412.10	133.73	142.96	153.16
416.87	132.11	137.12	142.80
421.70	148.85	143.99	155.28
426.58	154.66	149.78	153.81
431.52	148.52	141.13	150.24
436.52	155.86	151.41	143.39
441.57	152.46	153.27	142.65
446.68	143.90	149.42	162.16
451.86	147.24	139.87	159.99
457.09	154.35	144.01	141.99
462.38	153.40	141.94	141.85
467.73	163.60	144.24	159.26
473.15	148.14	161.90	157.37
478.63	144.86	158.81	158.59
484.17	144.53	160.65	147.69
489.78	152.32	159.59	142.79
495.45	147.01	152.76	160.32
501.19	151.54	155.00	164.45
506.99	147.79	147.27	152.56
512.86	152.50	150.08	142.37
518.80	152.52	151.24	141.31
524.81	151.20	157.39	163.34
530.88	158.03	148.98	162.90
537.03	152.77	147.35	163.99
543.25	160.88	159.86	171.32
549.54	174.79	150.86	176.67

555.90	158.08	160.43	168.54
562.34	156.72	159.92	174.54
568.85	156.62	161.96	162.98
575.44	160.66	154.93	159.01
582.10	153.02	161.12	158.71
588.84	166.89	164.74	162.89
595.66	162.16	165.77	167.73
602.56	155.81	169.86	189.03
609.54	164.80	159.67	171.22
616.59	170.81	166.18	168.04
623.73	163.36	169.44	188.66
630.96	166.49	171.19	186.25
638.26	173.95	165.86	168.22
645.65	175.02	169.87	173.77
653.13	159.57	180.19	163.41
660.69	167.14	165.43	157.01
668.34	161.27	169.53	160.99
676.08	167.23	182.64	155.89
683.91	172.58	167.56	165.94
691.83	153.62	176.14	159.75
699.84	165.82	173.04	181.15
707.95	166.92	172.93	172.51
716.14	179.50	174.86	179.65
724.44	171.78	180.11	150.37
732.82	162.29	185.16	144.24
741.31	166.93	180.87	162.75
749.89	180.08	172.78	156.15
758.58	180.93	170.94	182.25
767.36	186.50	165.93	165.61
776.25	185.60	156.65	159.85
785.23	188.93	174.39	182.60
794.33	162.25	164.47	171.22
803.53	166.56	146.48	172.49
812.83	161.25	156.40	165.78
822.24	166.51	168.96	155.55
831.76	176.54	174.80	172.96
841.40	172.21	186.61	161.50
851.14	173.26	183.77	183.37
860.99	164.46	185.64	171.13
870.96	169.64	177.53	164.99
881.05	155.75	163.10	169.02
891.25	161.87	165.34	157.44
901.57	173.91	177.75	157.29
912.01	177.16	163.87	164.13
922.57	173.96	171.65	177.64
933.25	163.18	180.52	157.24
944.06	165.95	174.82	163.29
954.99	181.30	163.00	201.68
966.05	182.47	157.80	168.52
977.24	168.40	159.01	137.02
988.55	169.14	152.87	162.56

1000.00

183.33

156.34

193.20

FREQUENCY	IMPEDANCE		
	brown / white	blue / white	orange / violet
10	142.218	138.722	134.575
13	126.615	128.770	129.658
15	131.324	129.611	122.759
18	138.518	140.832	137.431
20	128.602	130.721	126.115
23	134.837	132.970	136.273
25	133.313	127.882	128.762
28	129.267	128.086	126.872
30	139.524	134.070	125.889
33	147.574	139.126	120.823
35	130.066	128.335	128.745
38	132.878	130.201	126.474
40	124.585	128.221	121.912
43	138.387	126.001	126.083
45	129.660	129.314	122.695
48	145.131	137.903	117.000
50	146.571	136.453	118.976
53	131.232	135.751	128.748
55	140.444	127.843	120.882
58	142.871	138.067	124.245
60	134.267	131.710	137.048
63	129.592	126.731	124.322
65	126.211	131.754	130.244
68	127.921	129.722	121.540
70	132.925	137.138	129.929
73	125.038	131.203	127.718
75	126.131	128.829	125.328
78	130.381	140.689	127.751
80	131.740	123.764	124.563
83	123.583	131.559	126.285
85	110.203	133.013	116.326
88	123.902	122.042	129.139
90	121.812	126.797	132.085
93	126.966	120.557	121.482
95	133.439	121.514	130.013
98	115.477	123.357	126.475
100	126.266	121.517	117.454
103	122.537	134.986	119.730
105	132.009	138.158	121.827
108	137.602	131.929	125.356
110	126.413	141.273	118.637
113	136.465	127.235	118.754
115	129.650	123.946	127.247
118	128.391	137.947	131.118
120	154.328	136.383	113.746
123	149.923	137.069	121.091
125	134.313	130.982	116.018
128	130.450	126.886	112.347
130	121.382	129.035	130.540

133	131.548	126.995	135.875
135	129.819	137.356	132.123
138	153.485	132.170	131.879
140	127.295	126.561	129.621
143	112.725	122.768	130.775
145	121.625	134.538	134.979
148	127.858	140.355	136.883
150	124.609	141.962	135.178
153	138.501	135.342	153.060
155	120.128	138.557	143.449
158	130.720	123.358	128.512
160	130.909	124.616	131.662
163	128.781	135.590	127.981
165	146.444	127.442	138.741
168	130.311	132.546	155.721
170	128.882	126.102	135.153
173	121.770	129.494	128.183
175	110.203	136.525	137.556
178	127.660	129.036	125.277
180	141.913	134.426	124.721
183	139.940	133.264	131.333
185	136.132	133.769	147.700
188	123.506	131.373	157.769
190	122.352	121.241	161.387
193	125.869	127.514	137.752
195	130.318	142.184	144.652
198	135.158	120.881	136.005
200	120.895	135.539	142.278
203	117.758	130.665	141.083
205	115.854	118.761	142.667
208	117.697	134.582	159.453
210	121.448	134.928	134.126
213	124.748	135.951	136.684
215	142.421	134.931	126.343
218	140.922	127.756	122.774
220	125.533	128.067	145.169
223	133.950	128.307	133.076
225	124.597	128.670	138.257
228	116.363	124.316	148.494
230	109.676	124.747	150.662
233	110.152	133.519	139.781
235	119.809	129.688	129.662
238	123.477	130.257	140.145
240	133.614	127.815	150.624
243	140.415	133.972	149.877
245	139.041	133.295	149.677
248	142.222	130.177	136.410
250	132.655	128.076	128.170
253	141.365	134.056	147.664
255	144.781	138.702	145.691
258	149.980	147.384	143.519

260	142.898	146.901	148.826
263	144.556	140.298	130.976
265	131.315	142.891	125.132
268	132.307	134.413	115.935
270	128.745	118.679	110.965
273	127.835	123.697	118.210
275	121.283	125.254	126.901
278	128.063	145.491	129.018
280	132.462	135.927	134.816
283	120.325	132.837	151.296
285	128.393	144.797	149.331
288	127.243	149.667	154.723
290	126.635	150.923	157.946
293	123.020	151.239	144.449
295	126.555	141.488	133.696
298	133.775	136.688	139.495
300	117.930	126.696	126.144
303	111.881	127.711	125.807
305	125.139	138.553	147.568
308	123.777	137.211	129.063
310	138.528	142.650	130.597
313	152.654	141.663	136.650
315	132.567	143.467	135.496
318	133.401	151.979	134.759
320	134.117	137.834	117.597
323	138.808	129.983	126.446
325	139.623	126.844	137.397
328	113.595	121.000	119.795
330	110.873	123.523	128.729
333	123.446	128.111	142.525
335	136.930	130.772	153.862
338	136.150	128.032	166.000
340	135.733	133.800	131.950
343	143.099	150.369	129.631
345	131.510	161.226	134.735
348	132.946	155.917	123.371
350	135.583	147.454	123.637
353	135.151	142.689	138.447
355	138.984	138.008	148.837
358	138.932	144.609	159.753
360	139.624	140.918	152.082
363	138.770	136.846	165.408
365	133.037	137.186	163.430
368	136.332	139.636	157.429
370	135.493	144.037	146.527
373	128.923	141.141	141.490
375	134.480	153.086	146.276
378	123.992	154.676	157.776
380	125.952	147.978	136.386
383	130.595	158.003	146.356
385	126.110	149.645	145.756

388	141.528	151.229	151.743
390	143.974	162.558	155.967
393	144.010	159.151	151.349
395	148.187	147.164	162.147
398	146.079	136.117	167.642
400	154.575	140.031	153.461
403	138.609	139.338	145.675
405	132.769	135.125	146.623
408	144.994	148.228	153.651
410	134.614	149.940	151.936
413	132.485	144.141	141.611
415	142.177	140.366	133.044
418	135.500	137.591	119.243
420	134.684	137.590	111.997
423	129.247	135.997	116.023
425	127.436	129.359	119.618
428	132.760	137.911	130.019
430	128.161	132.411	134.811
433	133.887	139.481	137.501
435	127.706	153.096	144.368
438	131.833	155.494	134.561
440	148.973	152.985	135.839
443	138.870	149.074	145.527
445	141.350	146.196	153.682
448	129.697	159.966	164.205
450	124.131	164.769	172.011
453	132.378	153.604	155.680
455	137.329	147.833	153.876
458	140.081	152.709	144.799
460	141.571	155.680	142.808
463	147.563	146.606	145.420
465	150.983	145.935	148.560
468	142.239	147.961	145.548
470	140.048	139.837	148.430
473	139.344	143.198	159.478
475	137.459	149.417	185.410
478	145.216	152.827	184.645
480	144.164	175.831	186.410
483	145.428	185.505	190.519
485	148.393	175.655	175.967
488	147.013	172.562	161.555
490	164.129	168.642	165.196
493	172.018	164.759	169.223
495	158.467	159.745	145.987
498	149.858	154.218	129.251
500	137.271	148.283	143.777
503	137.689	137.478	149.737
505	142.902	134.632	135.868
508	135.018	138.696	124.624
510	134.495	137.166	115.796
513	127.577	134.528	121.348

515	123.046	140.326	135.807
518	121.459	154.243	140.364
520	121.951	166.966	145.253
523	128.278	167.295	140.537
525	124.759	169.341	137.435
528	130.625	174.671	146.776
530	141.324	181.127	137.388
533	141.398	175.793	150.687
535	141.362	153.994	173.944
538	139.027	151.288	180.477
540	135.040	155.074	186.523
543	139.130	154.800	166.818
545	137.921	168.429	146.676
548	143.748	172.893	148.122
550	150.093	168.086	147.067
553	152.592	163.819	174.380
555	151.042	153.549	178.439
558	147.586	147.951	156.505
560	153.097	152.147	140.173
563	144.403	156.830	128.952
565	135.360	169.865	127.085
568	137.123	173.514	126.343
570	136.745	180.189	126.768
573	132.378	182.833	141.677
575	130.547	181.448	152.735
578	130.851	177.902	165.885
580	135.886	160.719	174.382
583	133.934	161.892	166.145
585	141.443	159.498	166.822
588	145.030	156.252	169.177
590	140.218	160.449	180.670
593	142.144	162.140	187.583
595	147.036	158.794	166.792
598	150.139	153.508	152.016
600	155.898	142.004	146.067
603	157.748	148.889	143.289
605	148.026	149.096	148.139
608	135.422	142.938	158.148
610	127.325	134.463	173.721
613	123.431	128.377	193.869
615	124.864	132.470	201.674
618	138.874	143.179	175.542
620	147.008	147.547	143.424
623	146.544	152.315	137.711
625	147.289	150.721	141.982
628	144.487	148.560	132.163
630	141.588	144.989	133.311
633	135.845	139.923	141.947
635	130.941	138.753	140.232
638	133.451	144.085	142.094
640	130.693	157.218	152.881

643	129.017	166.218	163.230
645	133.938	161.296	153.834
648	137.356	155.800	146.897
650	144.220	149.618	162.556
653	151.851	152.418	159.321
655	159.031	156.110	151.998
658	155.272	165.167	162.198
660	144.102	174.040	159.196
663	144.984	166.627	157.823
665	152.200	159.593	165.133
668	152.654	161.756	174.507
670	155.487	166.498	179.215
673	152.864	166.473	180.205
675	143.725	168.291	177.222
678	143.623	172.945	162.917
680	146.063	182.740	146.796
683	144.648	193.148	142.158
685	140.480	183.857	132.330
688	139.226	178.127	125.766
690	136.922	181.994	134.246
693	129.985	178.106	147.269
695	126.378	178.734	153.073
698	123.462	184.652	152.980
700	123.690	181.819	157.782
703	122.255	159.500	162.096
705	116.928	144.064	163.500
708	120.730	142.211	172.733
710	127.396	147.306	179.862
713	129.063	156.049	182.639
715	129.120	160.940	188.620
718	126.202	165.808	178.075
720	123.269	167.435	160.654
723	124.551	163.885	155.906
725	128.556	164.773	150.872
728	129.999	168.483	144.408
730	126.796	170.421	145.240
733	125.999	175.131	149.920
735	133.813	170.937	156.604
738	136.767	166.414	152.085
740	141.054	167.001	146.805
743	143.837	164.471	153.981
745	142.118	169.062	151.019
748	145.147	170.596	148.028
750	147.184	160.604	158.843
753	140.664	160.674	181.344
755	132.492	161.658	218.928
758	132.024	166.154	258.584
760	134.362	168.225	255.201
763	136.231	166.167	247.351
765	139.169	174.853	248.827
768	141.498	177.673	244.069

770	147.909	171.544	217.026
773	149.459	169.671	204.631
775	143.123	172.579	207.005
778	137.161	178.046	202.935
780	132.277	173.920	201.764
783	131.562	171.209	210.479
785	133.560	165.915	211.392
788	133.438	158.361	193.076
790	134.268	158.229	181.476
793	133.690	163.943	177.950
795	132.055	163.587	171.767
798	134.910	168.719	167.486
800	144.973	173.651	165.399
803	155.393	178.605	173.097
805	154.804	179.939	183.969
808	149.507	178.271	184.748
810	144.123	174.909	177.664
813	137.460	174.669	178.804
815	135.924	176.826	186.252
818	134.286	186.029	185.374
820	128.112	189.778	199.119
823	121.913	182.831	215.609
825	120.148	179.170	227.277
828	120.032	177.557	244.810
830	120.006	174.247	222.888
833	119.751	176.396	202.372
835	119.472	179.694	208.982
838	124.768	180.247	203.533
840	132.300	176.521	193.003
843	129.025	175.990	193.051
845	123.500	176.499	195.365
848	121.410	174.433	203.029
850	119.948	173.142	213.981
853	119.999	175.549	203.701
855	119.222	181.660	181.090
858	120.311	187.628	162.019
860	120.830	189.857	154.298
863	123.607	186.331	143.655
865	128.475	179.774	138.204
868	130.218	177.688	135.331
870	132.005	181.554	135.688
873	139.622	193.915	139.679
875	149.450	214.975	144.258
878	159.703	231.745	151.273
880	156.561	224.312	162.947
883	146.224	207.767	177.800
885	139.639	199.687	197.351
888	135.554	196.761	206.848
890	134.444	194.682	220.919
893	135.674	197.464	249.761
895	135.442	193.618	272.087

898	138.324	188.546	282.960
900	138.880	184.950	286.548
903	140.086	178.931	280.346
905	144.996	170.567	263.310
908	147.995	165.654	253.783
910	147.504	162.868	255.084
913	146.647	158.788	247.736
915	142.380	161.521	222.095
918	141.988	169.086	192.693
920	142.252	179.037	175.750
923	142.388	177.696	155.381
925	148.524	170.086	137.183
928	151.845	171.812	131.195
930	151.956	183.268	133.087
933	153.735	195.736	135.611
935	158.949	202.275	140.427
938	164.815	203.869	148.745
940	164.398	195.564	160.250
943	160.041	191.966	180.060
945	153.679	188.872	194.497
948	144.191	193.421	202.284
950	137.823	204.687	217.450
953	128.579	213.190	249.571
955	120.811	210.335	285.179
958	120.804	203.013	320.315
960	119.393	196.573	343.614
963	116.403	194.421	377.129
965	118.733	189.414	410.259
968	123.287	190.540	409.822
970	126.846	188.000	399.296
973	130.855	176.819	357.691
975	134.417	175.936	279.567
978	134.458	180.395	221.278
980	135.927	176.744	177.214
983	143.810	169.384	147.167
985	155.545	157.617	126.595
988	161.120	152.639	112.945
990	159.061	158.597	107.157
993	158.348	170.607	105.402
995	158.025	181.329	103.785
998	156.238	186.310	104.835
1000	150.585	189.078	109.095