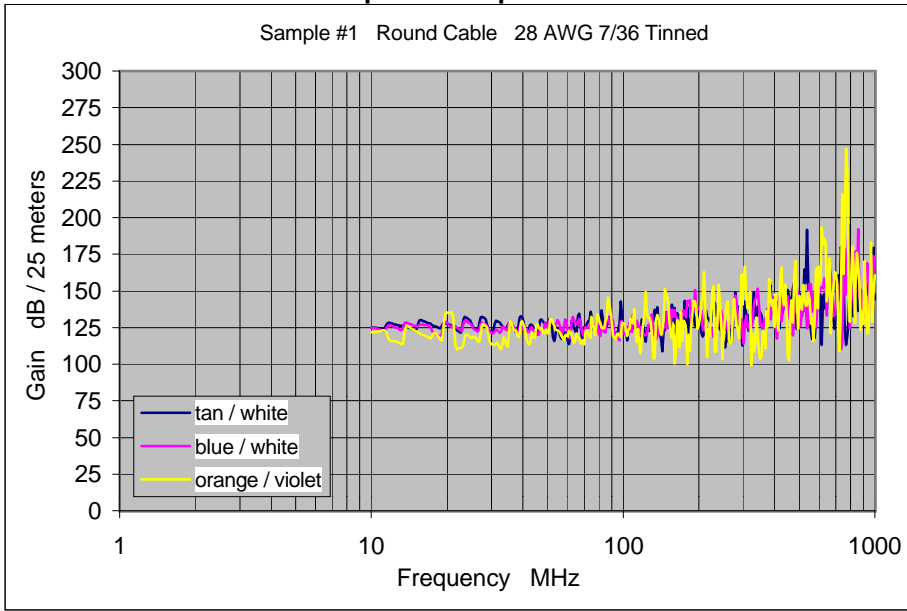
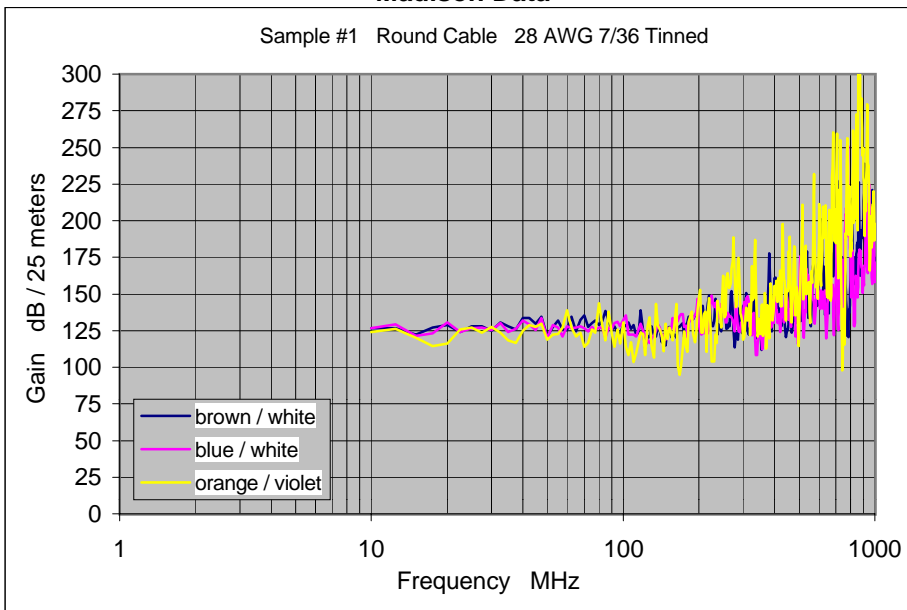


### Spectra-Strip Data

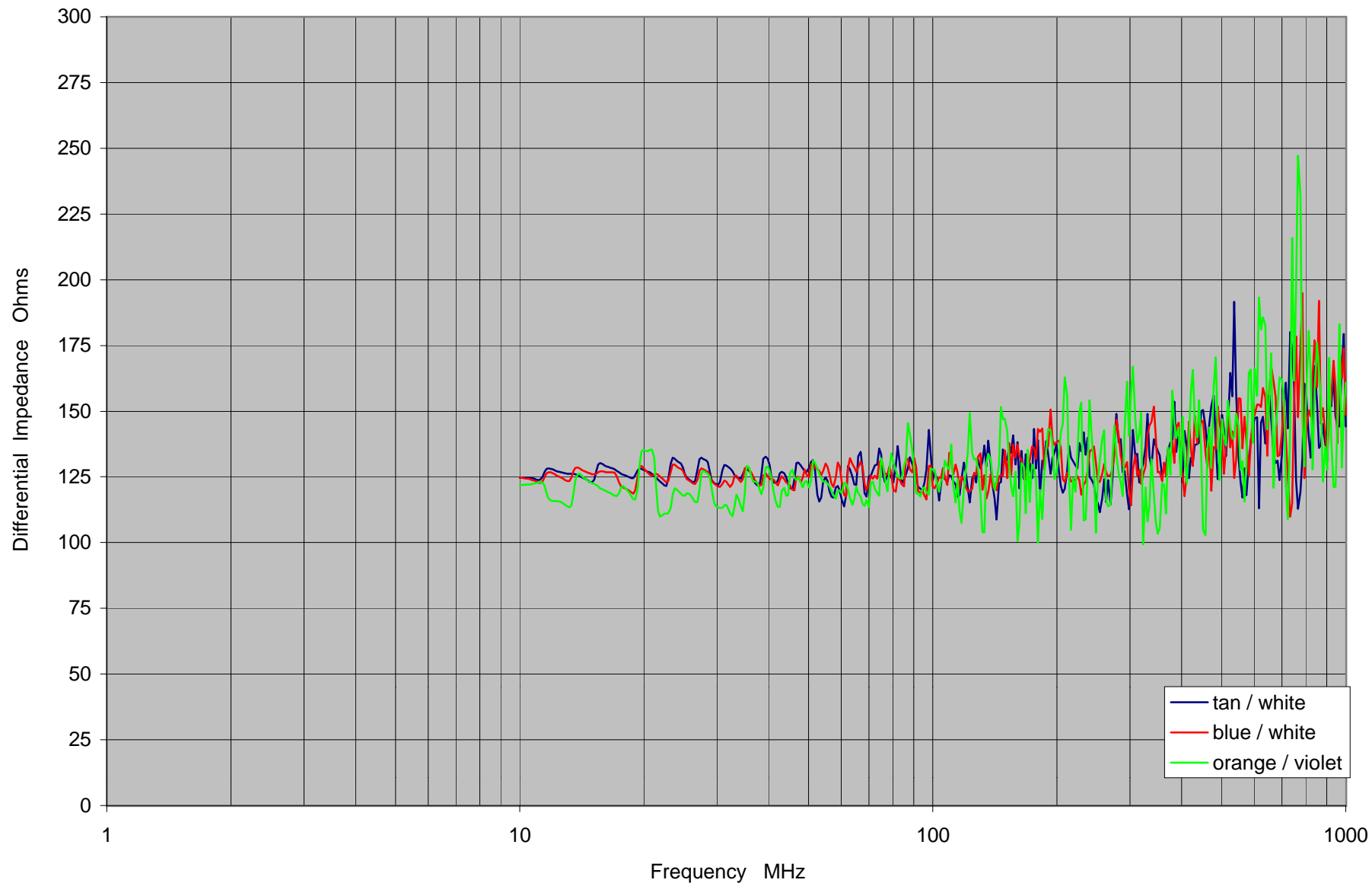


### Madison Data



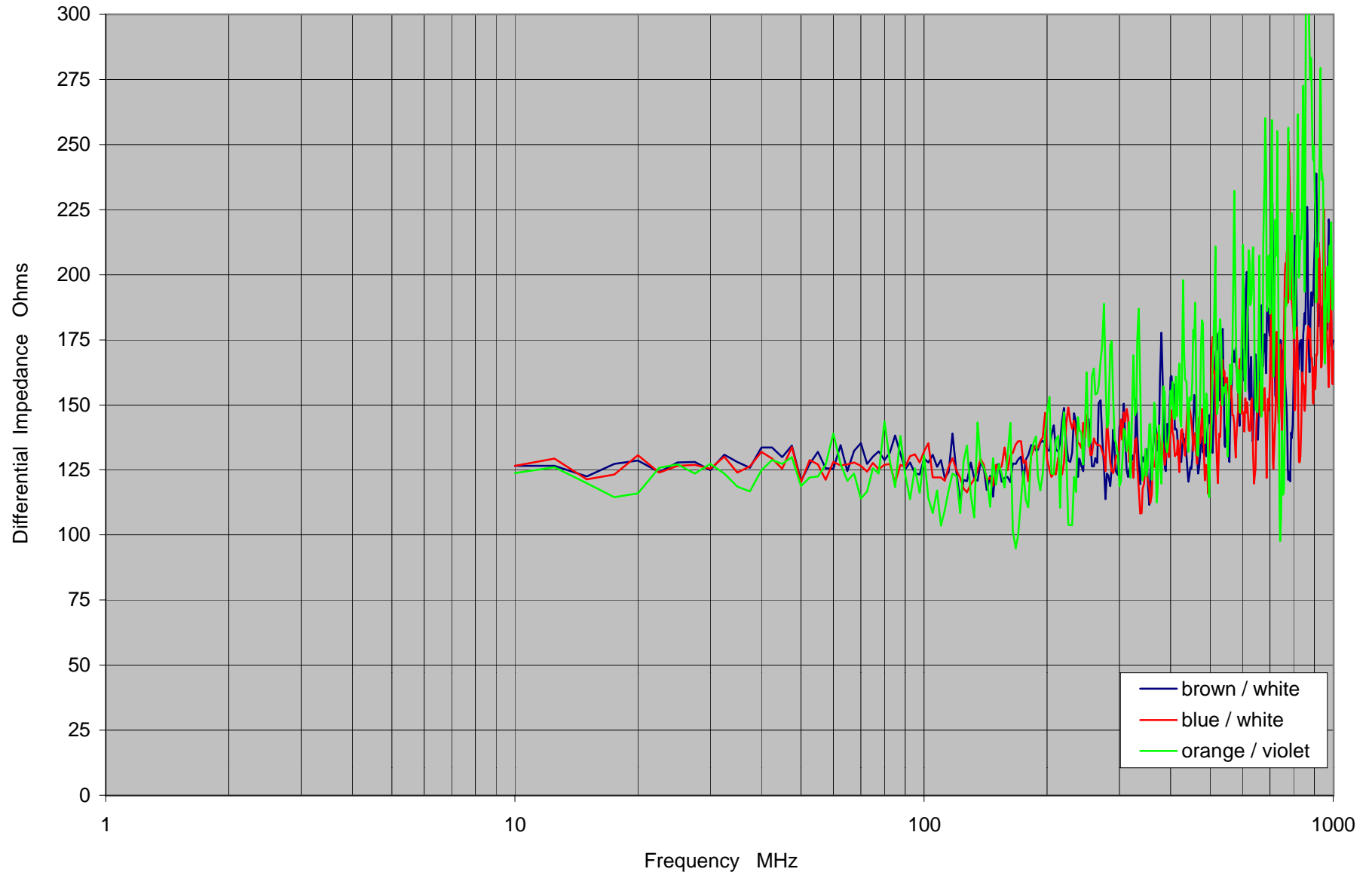
IMPEDANCE

Sample #1 Round Cable 28 AWG 7/36 Tinned



IMPEDANCE

Sample #1 Round Cable 28 AWG 7/36 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	124.71	124.77	121.80
10.12	124.77	124.64	121.88
10.23	124.79	124.50	121.97
10.35	124.71	124.40	122.04
10.47	124.76	124.32	122.14
10.59	124.53	124.06	122.17
10.72	124.46	123.77	122.31
10.84	124.25	123.64	122.51
10.96	123.97	123.26	122.68
11.09	123.79	122.91	122.94
11.22	124.05	122.73	122.99
11.35	125.13	123.35	122.86
11.48	126.94	124.94	121.48
11.61	128.07	126.39	118.86
11.75	128.29	126.76	116.78
11.89	128.12	126.68	116.00
12.02	127.85	126.34	115.79
12.16	127.47	125.95	115.87
12.30	127.19	125.48	115.79
12.45	126.98	125.09	115.64
12.59	126.79	124.70	115.36
12.74	126.61	124.29	114.98
12.88	126.39	123.80	114.42
13.03	126.20	123.32	113.82
13.18	126.19	123.47	113.45
13.34	126.21	124.78	114.23
13.49	126.13	127.17	118.29
13.65	125.95	128.45	123.63
13.80	125.65	128.54	126.08
13.96	125.29	128.16	126.11
14.13	124.92	127.68	125.40
14.29	124.60	127.33	124.73
14.45	124.09	126.96	124.07
14.62	123.64	126.63	123.49
14.79	123.04	126.32	123.12
14.96	122.90	126.03	122.68
15.14	123.98	125.92	122.37
15.31	127.05	126.26	121.93
15.49	129.79	126.83	121.33
15.67	130.32	127.12	120.65
15.85	129.97	127.07	120.26
16.03	129.42	126.94	119.90
16.22	129.05	126.77	119.55

16.41	128.70	126.74	119.20
16.60	128.44	126.69	118.73
16.79	128.14	126.70	118.24
16.98	127.89	126.48	117.78
17.18	127.31	125.23	117.59
17.38	126.78	122.92	118.86
17.58	126.23	121.42	120.94
17.78	125.89	120.93	121.51
17.99	125.62	120.67	120.89
18.20	125.32	120.24	119.99
18.41	124.90	119.75	118.92
18.62	124.56	119.07	117.71
18.84	124.51	118.64	116.50
19.05	125.60	119.98	116.37
19.28	127.57	124.98	120.24
19.50	128.32	128.74	129.47
19.72	128.08	129.06	134.74
19.95	127.70	128.32	135.35
20.18	127.35	127.37	134.86
20.42	127.02	126.61	134.78
20.65	126.70	125.81	135.19
20.89	126.24	125.41	135.52
21.13	125.39	125.76	132.46
21.38	124.57	126.14	121.34
21.63	123.91	125.79	111.94
21.88	123.26	125.10	109.95
22.13	122.49	124.40	110.38
22.39	121.72	123.54	110.90
22.65	121.53	122.88	111.04
22.91	124.34	123.44	111.24
23.17	130.16	126.89	113.22
23.44	132.38	129.66	118.20
23.71	131.94	129.64	120.59
23.99	131.24	129.03	120.29
24.27	130.67	128.47	119.54
24.55	130.01	127.99	118.63
24.83	128.51	127.26	117.94
25.12	126.03	125.58	117.92
25.41	124.74	124.16	118.73
25.70	124.04	123.51	118.67
26.00	123.37	122.95	117.59
26.30	122.80	122.45	116.47
26.61	123.35	122.21	115.35
26.92	127.82	123.92	115.35
27.23	131.79	127.30	120.33
27.54	132.22	128.19	126.56
27.86	131.81	127.78	127.36
28.18	131.45	127.32	126.71
28.51	130.54	126.87	126.13
28.84	127.10	125.56	125.07
29.17	123.70	123.50	120.65

29.51	122.69	122.40	115.24
29.85	122.28	121.90	113.81
30.20	122.00	121.44	113.48
30.55	123.10	121.18	113.14
30.90	127.50	122.32	113.13
31.26	129.53	123.60	114.17
31.62	129.27	123.16	114.24
31.99	128.74	122.14	112.91
32.36	128.24	121.28	111.17
32.73	127.10	122.48	110.11
33.11	125.71	125.47	113.69
33.50	124.98	125.47	118.21
33.88	124.47	124.13	116.73
34.28	124.29	122.96	113.73
34.67	125.98	124.21	111.99
35.08	127.81	128.28	118.84
35.48	127.77	128.76	129.07
35.89	127.27	127.76	128.59
36.31	126.39	126.76	125.54
36.73	124.26	125.31	123.20
37.15	122.73	123.62	123.30
37.58	121.80	122.59	122.71
38.02	121.54	121.66	120.44
38.46	125.62	121.94	118.44
38.90	131.94	125.45	120.97
39.36	132.66	126.33	128.55
39.81	131.85	125.24	129.05
40.27	129.47	124.17	127.26
40.74	124.50	124.08	124.41
41.21	122.86	123.73	118.64
41.69	122.65	122.58	115.46
42.17	123.52	121.73	113.63
42.66	126.42	123.71	113.63
43.15	126.91	125.28	119.65
43.65	126.30	124.14	120.78
44.16	124.91	122.84	117.92
44.67	122.31	122.67	118.02
45.19	120.80	121.82	126.55
45.71	120.22	120.03	127.64
46.24	124.22	119.93	124.71
46.77	130.28	124.97	123.75
47.32	130.40	125.03	124.96
47.86	129.39	122.93	122.91
48.42	128.18	124.75	120.92
48.98	127.24	127.92	123.02
49.54	126.92	125.88	123.42
50.12	128.33	124.92	120.95
50.70	130.67	129.75	123.40
51.29	131.32	130.26	131.23
51.88	127.97	128.38	130.49
52.48	118.19	128.12	128.17

53.09	115.70	127.24	126.19
53.70	117.08	125.68	124.41
54.33	123.20	127.39	123.19
54.95	124.83	130.05	123.20
55.59	123.36	128.87	122.57
56.23	119.57	125.88	121.29
56.89	117.48	122.55	119.74
57.54	117.14	121.11	117.99
58.21	120.97	124.90	116.79
58.88	121.63	130.41	119.63
59.57	119.71	129.04	119.96
60.26	116.36	123.21	118.78
60.95	113.69	118.17	122.67
61.66	117.86	117.45	122.43
62.37	129.16	128.30	120.24
63.10	127.93	132.12	116.83
63.83	124.99	129.95	114.39
64.57	122.13	128.68	116.77
65.31	121.95	126.91	121.10
66.07	132.90	128.55	118.78
66.83	134.57	130.87	117.40
67.61	127.64	128.63	114.74
68.39	118.82	122.21	113.98
69.18	117.53	119.80	116.20
69.98	125.29	122.75	113.61
70.79	125.44	125.37	122.78
71.61	127.54	124.29	123.29
72.44	129.32	125.41	120.53
73.28	129.73	124.32	118.82
74.13	135.88	130.37	117.82
74.99	133.60	131.46	132.16
75.86	125.62	128.63	129.46
76.74	122.99	125.97	124.21
77.62	125.85	125.97	119.45
78.52	125.86	129.04	127.78
79.43	124.66	126.15	133.94
80.35	122.90	120.06	130.62
81.28	128.89	119.24	127.65
82.22	136.79	124.89	125.07
83.18	130.47	123.88	124.52
84.14	122.47	122.23	124.31
85.11	124.01	121.38	129.15
86.10	125.97	131.94	131.61
87.10	128.34	131.80	145.43
88.10	132.43	127.80	141.20
89.13	129.92	126.82	135.21
90.16	128.00	132.05	127.81
91.20	124.21	128.67	118.70
92.26	121.26	119.55	118.53
93.33	120.44	118.87	117.40
94.41	119.94	119.67	120.65

95.50	122.94	117.89	120.98
96.61	127.65	116.30	119.14
97.72	142.82	129.10	118.23
98.86	133.25	129.36	128.31
100.00	123.87	121.28	127.72
101.16	126.63	120.57	127.61
102.33	124.60	122.30	122.92
103.51	116.05	124.88	119.37
104.71	122.22	124.71	123.52
105.93	128.24	128.25	124.53
107.15	124.16	124.90	131.20
108.39	123.17	121.92	128.77
109.65	125.69	134.25	127.94
110.92	125.22	131.76	137.36
112.20	123.32	125.80	121.94
113.50	122.20	129.75	115.28
114.82	117.39	126.52	124.09
116.14	118.03	120.72	112.01
117.49	124.19	125.13	107.44
118.85	130.50	123.82	120.53
120.23	126.35	120.94	127.57
121.62	120.72	119.61	134.34
123.03	115.32	119.71	149.42
124.45	124.42	120.53	134.05
125.89	125.96	126.63	131.65
127.35	122.93	125.79	131.86
128.82	131.49	132.75	127.82
130.32	128.17	133.94	118.07
131.83	130.82	120.15	104.00
133.35	136.98	125.59	103.87
134.90	128.89	116.82	130.19
136.46	138.75	119.28	133.77
138.04	129.74	126.03	131.64
139.64	121.60	121.01	124.68
141.25	116.75	122.21	120.06
142.89	108.86	119.81	123.45
144.54	122.51	125.11	129.25
146.22	123.10	125.68	151.63
147.91	135.48	125.26	146.95
149.62	132.93	135.07	147.08
151.36	131.38	124.60	142.40
153.11	137.08	137.91	129.09
154.88	134.07	125.65	121.51
156.68	140.82	137.32	117.58
158.49	129.74	132.38	127.02
160.32	138.24	137.24	100.58
162.18	120.70	132.69	106.98
164.06	134.96	131.62	130.21
165.96	124.10	128.42	129.03
167.88	133.67	123.90	111.14
169.82	124.72	128.32	135.30



171.79	130.24	131.28	115.53
173.78	124.59	136.64	129.72
175.79	143.19	136.03	128.29
177.83	128.29	131.76	123.70
179.89	138.89	143.20	99.98
181.97	118.08	142.10	120.01
184.08	131.15	143.49	108.99
186.21	131.37	127.86	126.15
188.36	138.63	135.57	135.38
190.55	133.53	136.76	143.20
192.75	126.10	150.67	142.77
194.98	132.10	138.93	137.15
197.24	134.27	137.09	124.10
199.53	137.33	138.24	126.59
201.84	127.27	138.77	133.18
204.17	121.48	136.24	142.12
206.54	118.88	124.17	145.08
208.93	120.45	122.97	162.96
211.35	127.30	126.54	155.95
213.80	136.67	125.35	123.76
216.27	132.34	123.27	104.91
218.78	131.02	123.56	124.60
221.31	129.25	124.05	119.39
223.87	128.23	125.18	133.34
226.46	137.87	123.80	149.66
229.09	134.75	118.13	153.32
231.74	141.95	122.17	108.46
234.42	133.38	123.21	108.85
237.14	139.89	127.38	128.27
239.88	125.07	134.60	154.19
242.66	124.00	135.21	141.43
245.47	122.07	136.58	127.70
248.31	116.42	130.51	103.70
251.19	115.07	123.44	123.41
254.10	111.53	123.00	131.37
257.04	116.84	126.20	139.25
260.02	124.21	129.81	142.60
263.03	115.49	126.76	115.96
266.07	123.76	125.27	113.86
269.15	114.43	125.64	114.34
272.27	124.79	128.12	131.66
275.42	138.16	133.58	144.61
278.61	148.90	146.70	133.31
281.84	138.03	140.42	126.04
285.10	139.36	133.13	123.02
288.40	126.79	129.41	117.57
291.74	127.26	128.45	142.83
295.12	118.50	130.63	161.14
298.54	112.69	119.98	140.73
302.00	126.11	114.06	156.24
305.49	142.86	127.72	166.93

309.03	132.81	133.15	146.76
312.61	133.72	125.41	138.02
316.23	122.83	127.62	140.94
319.89	127.56	122.26	149.31
323.59	129.96	125.91	99.31
327.34	136.60	128.95	120.99
331.13	148.97	141.18	108.10
334.97	132.71	144.52	114.17
338.84	129.06	145.90	131.81
342.77	139.32	151.72	118.44
346.74	136.86	140.24	107.91
350.75	134.93	126.74	103.47
354.81	133.25	126.91	105.35
358.92	125.03	123.33	122.67
363.08	128.63	130.51	121.86
367.28	129.16	125.33	110.97
371.53	135.12	135.51	136.20
375.84	138.00	130.81	125.77
380.19	138.10	138.72	157.90
384.59	153.67	130.35	145.18
389.04	134.44	143.73	139.79
393.55	143.82	145.66	143.84
398.11	128.24	129.70	125.14
402.72	122.92	125.19	147.90
407.38	142.52	117.61	132.34
412.10	136.13	127.00	122.76
416.87	124.46	146.02	139.16
421.70	132.37	135.79	157.19
426.58	130.18	129.19	165.75
431.52	137.13	148.19	146.77
436.52	137.41	137.77	140.11
441.57	138.01	145.55	154.16
446.68	149.98	145.56	134.75
451.86	150.51	146.48	104.79
457.09	143.93	134.30	102.78
462.38	136.15	128.54	135.79
467.73	145.39	137.98	143.72
473.15	151.99	119.72	128.42
478.63	155.96	136.42	159.77
484.17	138.96	135.66	170.50
489.78	124.21	151.87	144.70
495.45	132.28	145.48	123.80
501.19	148.58	140.21	146.92
506.99	143.09	126.27	140.66
512.86	132.78	136.10	136.95
518.80	144.12	150.66	154.06
524.81	164.57	136.21	144.05
530.88	155.57	142.32	139.52
537.03	191.55	124.61	140.09
543.25	156.81	131.83	148.91
549.54	132.24	154.95	144.24

555.90	123.29	154.66	127.59
562.34	117.13	135.77	130.92
568.85	128.27	147.93	115.58
575.44	118.07	138.79	130.32
582.10	130.68	125.44	164.48
588.84	138.85	137.86	165.86
595.66	143.77	146.62	137.82
602.56	147.33	148.59	166.45
609.54	147.68	152.54	155.80
616.59	112.98	152.42	193.27
623.73	145.73	151.56	181.04
630.96	147.91	158.73	185.76
638.26	137.70	155.34	182.76
645.65	145.81	132.99	142.97
653.13	156.28	157.85	154.39
660.69	146.91	166.88	171.99
668.34	133.29	161.06	120.81
676.08	130.18	155.40	143.81
683.91	131.23	132.83	151.96
691.83	123.86	133.18	162.79
699.84	133.66	141.56	161.87
707.95	151.69	154.47	155.76
716.14	160.79	139.94	122.25
724.44	143.48	125.52	108.88
732.82	180.06	109.86	143.90
741.31	172.77	115.06	215.94
749.89	159.25	153.11	161.65
758.58	123.56	178.43	197.34
767.36	112.89	147.70	247.23
776.25	119.41	173.95	231.52
785.23	132.06	195.03	148.00
794.33	160.44	124.47	129.02
803.53	155.59	143.81	157.48
812.83	140.33	150.36	180.43
822.24	132.38	148.11	164.46
831.76	147.27	163.43	127.85
841.40	167.06	176.87	157.56
851.14	153.56	159.21	176.12
860.99	136.09	192.01	165.90
870.96	137.09	145.24	154.80
881.05	145.03	151.23	123.13
891.25	137.56	142.13	136.35
901.57	133.73	131.14	127.61
912.01	157.51	149.70	170.32
922.57	151.84	154.36	139.98
933.25	163.01	169.12	121.16
944.06	148.10	158.82	121.21
954.99	144.50	137.94	145.75
966.05	144.11	174.36	183.01
977.24	166.77	162.50	128.63
988.55	179.34	173.86	149.84

1000.00

144.18

148.70

160.79

FREQUENCY	IMPEDANCE		
	brown / white	blue / white	orange / violet
10	126.60	126.50	123.80
13	126.53	129.39	126.02
15	122.48	121.41	119.90
18	127.29	123.21	114.57
20	128.69	130.65	115.97
23	124.14	124.02	125.89
25	127.94	126.64	127.10
28	127.98	127.00	123.55
30	124.90	125.43	127.38
33	130.77	130.12	123.57
35	128.03	123.92	118.51
38	125.83	126.32	116.75
40	133.65	132.01	124.88
43	133.55	129.31	128.82
45	129.83	125.44	127.36
48	134.28	133.79	129.88
50	120.86	120.26	118.71
53	127.38	128.79	122.06
55	132.01	127.15	122.52
58	125.63	121.16	126.86
60	125.47	128.13	139.05
63	134.46	126.72	127.25
65	124.49	127.15	120.88
68	132.24	127.78	123.52
70	135.27	126.58	114.05
73	127.34	124.39	116.81
75	130.11	127.72	125.71
78	132.09	125.29	123.55
80	128.72	126.97	143.54
83	131.63	127.27	128.63
85	138.28	120.10	118.43
88	131.25	126.97	137.98
90	125.21	126.12	123.01
93	127.90	130.25	113.85
95	123.78	131.05	125.64
98	123.16	127.79	116.14
100	129.37	132.16	130.38
103	127.82	135.24	114.07
105	130.77	122.12	108.34
108	126.23	122.12	117.13
110	128.84	122.16	103.63
113	121.86	120.85	109.56
115	124.20	126.24	117.28
118	139.02	129.60	123.66
120	124.24	124.90	122.72
123	112.99	121.96	108.49
125	121.14	117.89	128.43
128	120.71	116.38	134.27
130	127.87	119.54	114.99

133	121.73	121.28	106.69
135	120.83	124.97	143.32
138	128.00	129.13	128.57
140	125.45	126.95	125.83
143	117.20	120.97	122.04
145	122.63	122.12	110.78
148	114.78	118.96	129.52
150	126.61	126.86	119.28
153	127.33	125.30	127.26
155	120.51	126.32	123.33
158	121.88	133.60	118.17
160	122.30	124.92	130.20
163	120.27	130.67	143.03
165	127.55	131.52	101.46
168	127.36	134.77	94.79
170	129.03	136.05	99.94
173	130.12	136.09	113.66
175	120.41	127.68	124.37
178	128.88	128.55	113.44
180	130.63	120.68	110.59
183	134.54	130.27	131.08
185	134.35	132.80	135.43
188	132.52	134.31	137.92
190	132.64	133.40	122.58
193	135.47	136.00	117.17
195	136.20	137.48	123.49
198	135.21	146.92	139.37
200	132.87	129.16	147.19
203	132.32	125.02	153.00
205	138.16	122.22	123.50
208	142.10	123.82	123.44
210	133.00	123.17	136.32
213	131.92	129.64	138.01
215	135.42	123.91	110.43
218	143.55	123.13	137.52
220	148.85	127.63	147.18
223	135.03	143.16	129.73
225	128.52	148.92	103.89
228	127.98	143.77	103.83
230	131.48	140.92	103.74
233	146.72	143.93	122.24
235	143.32	138.98	116.48
238	122.21	135.19	145.34
240	129.29	134.99	140.19
243	126.58	133.34	139.43
245	124.54	143.04	127.09
248	141.36	137.52	144.19
250	144.04	146.04	162.45
253	144.46	140.46	133.96
255	136.61	130.71	135.75
258	126.38	130.75	160.91

260	126.43	137.21	164.01
263	129.57	135.59	154.05
265	127.75	134.48	154.39
268	150.56	134.48	157.35
270	151.84	134.08	167.05
273	138.09	132.06	172.29
275	126.39	130.17	188.74
278	113.74	124.58	162.39
280	123.53	144.45	141.20
283	122.93	137.42	142.74
285	118.82	127.96	172.62
288	125.91	124.43	174.60
290	140.43	123.82	152.83
293	131.85	126.01	136.70
295	124.42	130.37	135.18
298	122.98	130.14	130.52
300	141.40	136.24	118.86
303	142.95	144.39	120.42
305	141.80	136.61	127.98
308	150.47	147.22	140.76
310	136.46	143.68	139.66
313	124.81	148.38	132.03
315	122.24	145.17	136.64
318	124.98	128.09	143.38
320	126.50	128.42	121.90
323	130.60	127.98	145.86
325	128.80	121.95	169.01
328	132.02	136.26	146.02
330	152.38	137.03	147.58
333	138.57	126.65	175.27
335	127.65	117.84	186.91
338	119.61	108.21	158.48
340	128.52	108.33	126.48
343	129.86	117.61	120.96
345	127.95	119.65	123.39
348	131.99	127.92	133.02
350	133.04	124.27	122.60
353	119.31	120.89	126.69
355	111.64	117.89	142.33
358	122.91	112.28	142.73
360	132.81	115.65	121.23
363	131.90	128.63	125.78
365	137.87	126.24	150.82
368	143.32	126.17	148.03
370	138.88	138.59	112.49
373	132.47	136.71	117.08
375	137.69	140.45	142.20
378	159.87	134.48	128.94
380	177.78	127.80	119.74
383	164.00	135.83	138.61
385	149.31	133.62	157.06

388	126.01	127.01	154.38
390	124.54	129.62	134.65
393	142.62	135.02	131.71
395	134.23	132.12	135.49
398	144.15	129.94	139.30
400	160.73	140.94	155.44
403	161.02	147.93	149.77
405	155.19	139.53	158.74
408	157.86	138.12	145.05
410	140.54	130.25	144.59
413	140.79	131.26	160.80
415	140.34	130.81	145.66
418	134.89	136.41	154.17
420	128.29	124.06	165.92
423	130.01	134.18	144.28
425	128.01	140.06	141.49
428	133.25	140.67	168.01
430	139.01	135.71	197.96
433	134.27	134.51	169.91
435	136.92	130.37	159.66
438	130.40	141.36	159.01
440	124.81	150.75	148.65
443	120.53	148.51	131.98
445	123.02	149.23	152.95
448	125.94	147.03	151.74
450	125.37	144.01	151.98
453	129.43	139.48	158.97
455	142.85	132.36	178.84
458	153.83	137.41	175.49
460	150.75	139.20	189.15
463	142.68	131.20	159.22
465	131.15	127.31	130.89
468	123.62	137.22	130.44
470	125.81	145.14	142.55
473	130.54	135.22	148.77
475	136.50	136.79	171.10
478	137.51	148.39	182.44
480	131.82	147.96	181.38
483	138.07	132.92	151.62
485	135.71	120.93	135.21
488	131.41	124.91	146.40
490	130.20	127.00	154.38
493	139.33	123.42	150.70
495	143.32	115.80	125.29
498	146.01	122.40	114.54
500	142.80	136.80	130.84
503	148.92	146.64	134.54
505	142.08	171.68	145.73
508	131.54	175.96	165.30
510	142.32	161.99	173.74
513	159.47	163.01	188.76



515	168.02	155.53	210.93
518	170.61	140.03	172.96
520	171.62	128.69	146.36
523	177.10	119.88	149.09
525	177.66	132.24	177.91
528	157.12	138.89	177.20
530	151.66	137.73	182.88
533	161.76	153.35	174.58
535	173.53	167.36	149.86
538	179.24	161.04	152.85
540	156.92	163.43	156.79
543	134.71	162.47	154.99
545	133.74	154.72	156.54
548	139.51	154.63	158.14
550	143.68	160.45	137.71
553	142.20	157.14	130.05
555	130.36	155.21	140.09
558	128.04	151.24	158.64
560	140.05	153.78	165.44
563	153.70	157.44	157.84
565	158.04	152.02	162.02
568	167.94	146.10	169.78
570	170.84	145.98	197.54
573	166.36	142.75	232.09
575	167.83	137.05	216.82
578	171.77	129.77	181.79
580	165.14	136.25	171.65
583	162.26	142.44	156.06
585	160.09	147.90	154.64
588	148.82	157.08	163.49
590	141.96	166.22	148.80
593	153.04	167.62	146.93
595	164.19	157.51	161.93
598	163.59	146.72	174.18
600	164.22	147.59	190.97
603	171.27	146.70	211.44
605	164.46	140.56	188.27
608	159.14	139.74	161.31
610	168.88	152.44	155.31
613	194.09	147.37	163.59
615	200.97	146.98	171.21
618	198.64	150.98	180.31
620	172.76	143.72	198.42
623	156.59	140.28	209.46
625	151.95	139.95	204.20
628	161.41	140.50	188.28
630	168.46	150.23	189.47
633	154.70	152.51	192.02
635	136.02	144.45	207.81
638	136.64	131.35	210.41
640	151.96	119.64	191.75

643	167.29	121.87	168.25
645	169.32	125.38	149.59
648	166.06	134.85	148.07
650	155.27	142.83	148.57
653	139.58	148.37	147.11
655	136.54	156.33	156.03
658	147.78	159.04	185.11
660	162.26	151.19	207.31
663	172.04	145.82	182.71
665	185.13	150.21	152.00
668	188.35	155.07	145.51
670	171.75	156.51	148.97
673	164.49	153.88	172.29
675	169.35	147.82	210.61
678	173.59	150.91	229.88
680	177.22	156.44	236.63
683	173.85	150.54	260.14
685	162.11	134.42	240.88
688	175.15	121.95	196.55
690	187.83	136.52	185.97
693	184.72	152.29	195.22
695	186.70	147.83	207.37
698	178.39	149.08	204.98
700	176.39	159.30	184.91
703	184.38	173.14	185.23
705	200.54	186.28	230.76
708	221.27	176.25	259.34
710	227.47	145.96	226.12
713	212.37	128.66	180.89
715	188.64	125.38	160.83
718	178.35	134.52	170.94
720	170.02	140.04	198.31
723	153.67	143.34	221.11
725	151.78	157.11	207.23
728	156.17	177.99	213.74
730	164.88	169.49	255.11
733	170.37	152.05	223.42
735	163.48	143.05	172.96
738	156.56	144.65	139.15
740	161.06	151.42	109.94
743	174.98	173.25	97.73
745	174.34	164.14	106.57
748	162.08	145.26	122.22
750	159.25	138.90	139.93
753	167.08	149.31	128.70
755	170.92	164.69	115.36
758	167.85	178.38	117.33
760	166.20	189.67	130.61
763	162.49	200.83	163.83
765	157.13	204.41	191.08
768	150.99	203.60	187.99

770	146.19	208.88	201.99
773	138.26	196.12	226.59
775	125.13	189.16	237.45
778	121.19	219.06	256.43
780	124.28	251.07	235.23
783	121.47	232.48	196.70
785	120.70	214.27	190.46
788	131.62	207.60	211.50
790	139.28	196.51	221.18
793	137.05	190.39	223.62
795	142.18	185.79	205.37
798	149.68	181.86	190.72
800	160.32	177.76	179.01
803	173.44	163.07	175.43
805	195.55	147.78	185.27
808	214.93	148.50	178.92
810	209.56	161.68	191.03
813	189.65	174.12	216.17
815	174.52	179.70	227.72
818	174.54	173.04	240.56
820	170.83	159.98	261.66
823	163.60	140.15	231.76
825	165.74	128.31	198.90
828	172.11	127.91	201.79
830	173.75	128.48	209.55
833	174.53	130.12	214.73
835	174.99	143.09	213.70
838	162.45	156.12	220.71
840	156.13	162.56	240.58
843	166.28	157.52	261.57
845	177.29	158.00	272.53
848	179.42	157.42	241.13
850	183.25	149.74	201.25
853	185.32	147.67	193.46
855	181.06	150.60	222.75
858	187.55	154.64	282.94
860	205.44	165.11	341.44
863	226.00	174.95	336.75
865	215.09	176.80	321.39
868	190.66	180.34	321.48
870	177.08	179.18	312.00
873	167.25	175.55	297.07
875	162.51	177.38	287.26
878	170.33	179.34	274.90
880	184.48	173.11	276.79
883	190.24	168.40	283.30
885	193.33	167.99	277.35
888	188.68	167.84	262.72
890	188.17	163.71	250.88
893	192.02	150.92	244.40
895	193.09	150.48	243.89

898	201.84	160.82	249.54
900	207.27	164.47	239.92
903	213.64	160.31	229.85
905	218.70	156.09	224.92
908	231.04	161.97	208.30
910	238.88	169.31	189.31
913	225.76	168.92	195.39
915	205.39	170.17	209.93
918	187.81	181.08	210.11
920	180.07	200.50	206.72
923	183.09	212.28	222.16
925	187.07	209.21	236.77
928	188.54	205.67	246.40
930	186.98	198.04	267.92
933	179.83	177.41	279.41
935	173.04	164.35	252.07
938	172.76	164.81	236.36
940	181.58	168.11	238.92
943	187.13	175.07	237.25
945	188.18	195.29	236.21
948	183.98	220.34	220.31
950	179.35	225.10	189.97
953	181.19	212.33	167.86
955	188.54	198.26	165.88
958	199.37	189.68	177.67
960	200.63	189.56	189.66
963	194.33	183.88	190.46
965	184.07	177.12	196.18
968	178.81	173.38	203.06
970	192.48	168.01	192.26
973	210.44	161.75	181.85
975	221.16	156.71	187.24
978	219.11	167.07	206.14
980	205.45	189.82	211.16
983	204.69	208.48	198.53
985	208.09	209.80	201.11
988	197.44	198.51	216.21
990	181.00	190.93	220.20
993	172.52	177.98	202.61
995	173.14	160.18	186.59
998	173.87	157.89	187.70
1000	174.80	170.57	197.93