



HCS Official Test Report

HCS Part Number: H5E-00411

Cable Type: CAT5e FTP Horizontal 4x2x24# PVC

Date: 06.08.2006

Batch Number: 23006421-00

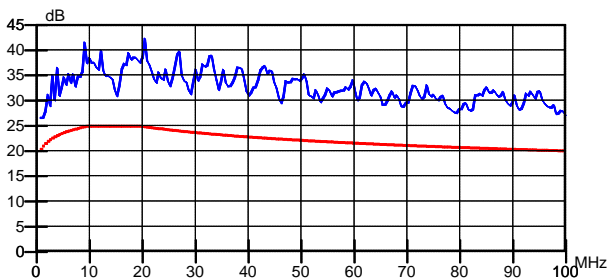
Test Standard: TIA/EIA-568-B.2 CAT 5e FTP Horizontal
 Customer : HCS
 Reel Number: AFT.JACK.

Test Result: PASS

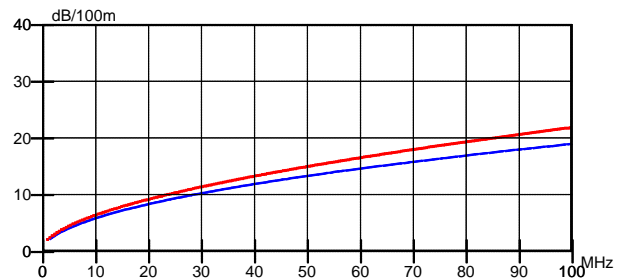
Worst Case Results

Parameter	Specification	Measured	Margin	Freq. [MHz]
RL [dB]	25.00	30.87	5.87	15.18
Attenuation [dB/100m]	2.24	2.21	0.02	1.21
NEXT [dB]	35.78	45.19	9.40	92.88
PS NEXT [dB]	32.34	42.00	9.66	99.43
ELFEXT [dB]	62.15	79.41	17.25	1.21
PS ELFEXT [dB]	59.15	77.83	18.67	1.21
Input Impedance [ohm]	85.00	92.18	7.18	98.12
Prop Delay [ns/100m]	566.75	536.33	30.42	1.21
Delay Skew [ns/100m]	40.00	23.54	16.46	1.21

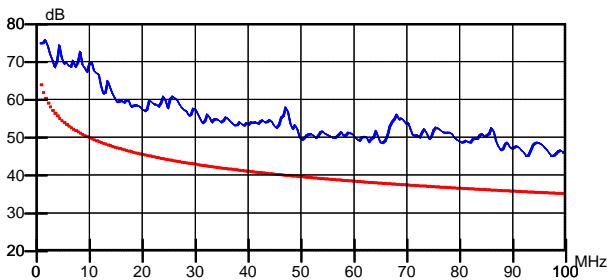
Return Loss



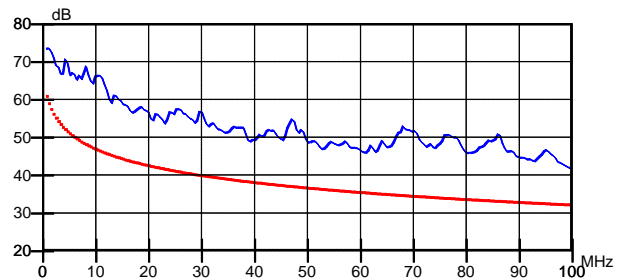
Attenuation



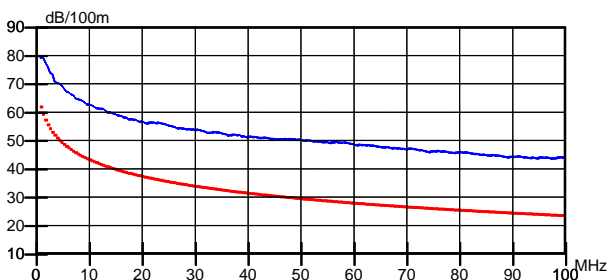
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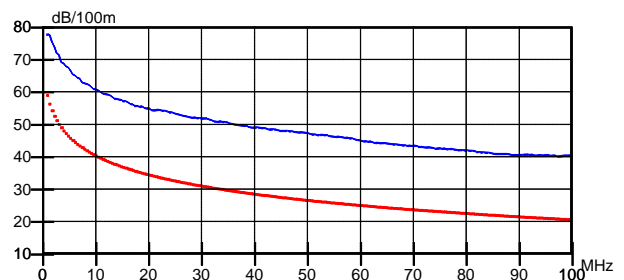
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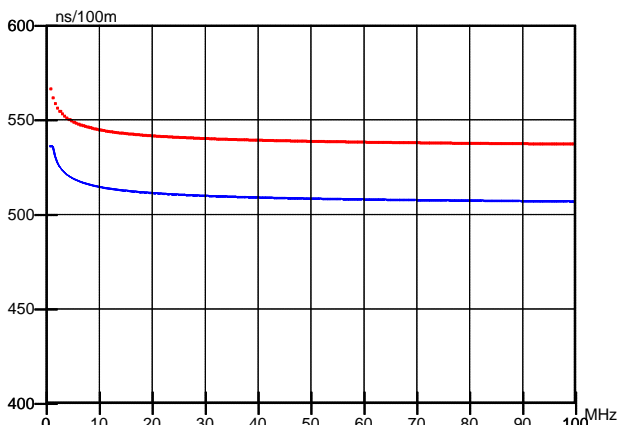
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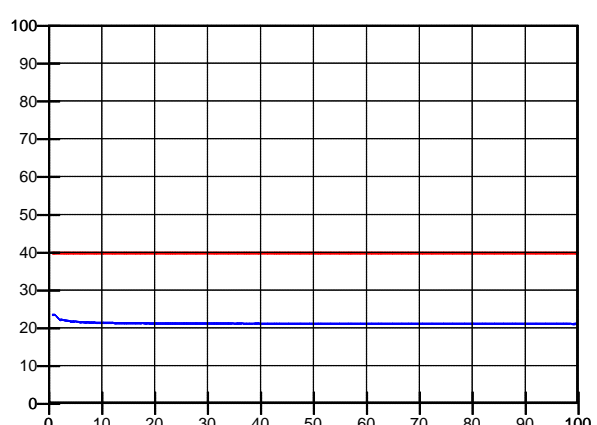
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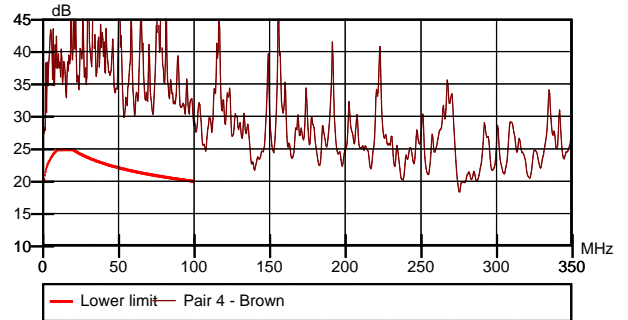
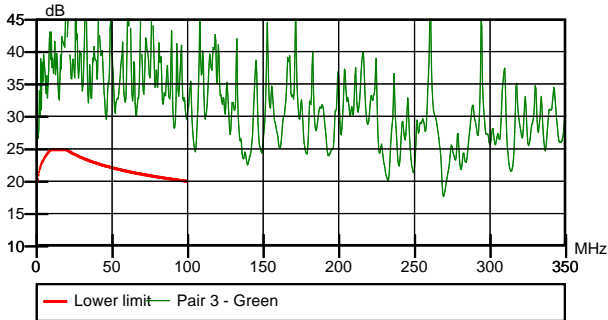
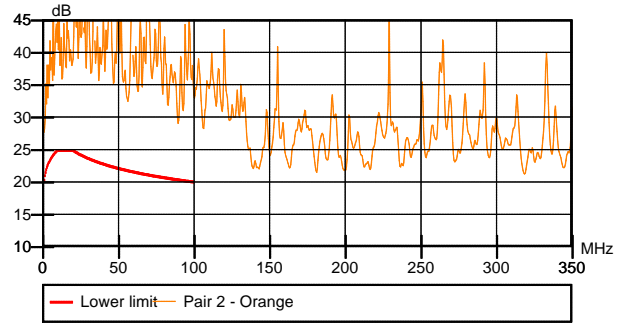
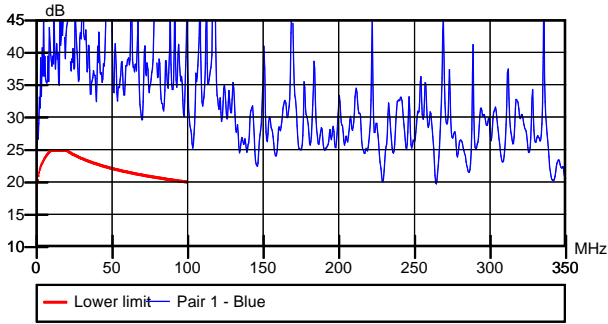
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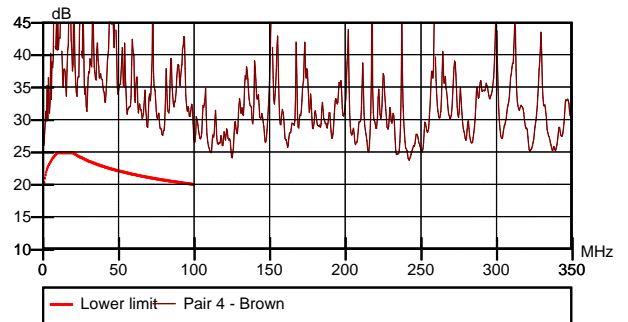
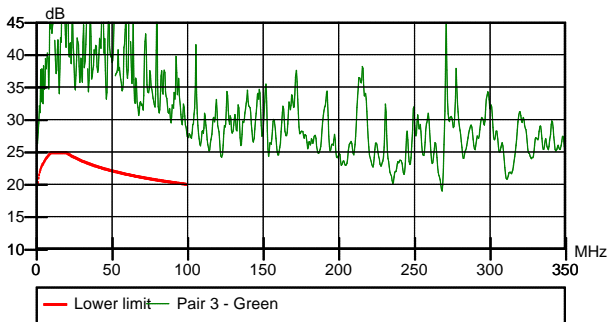
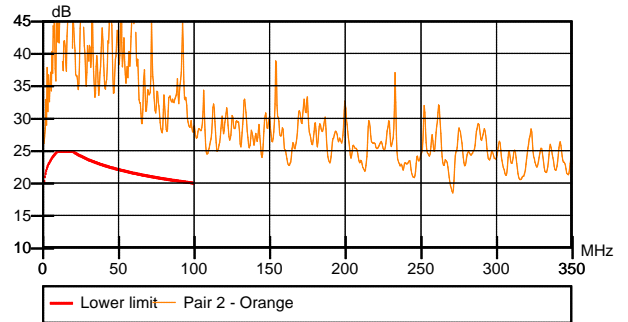
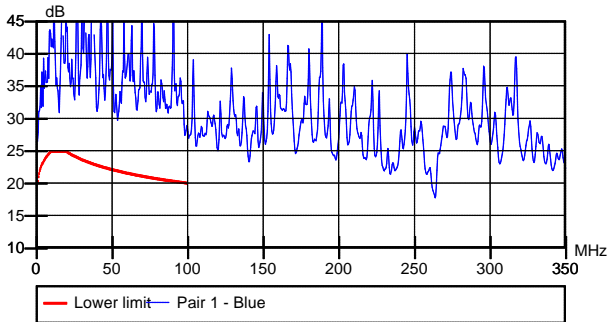
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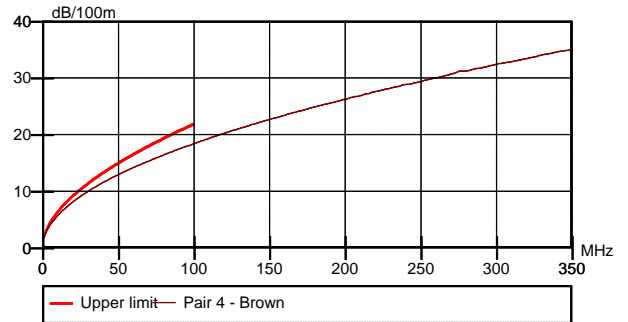
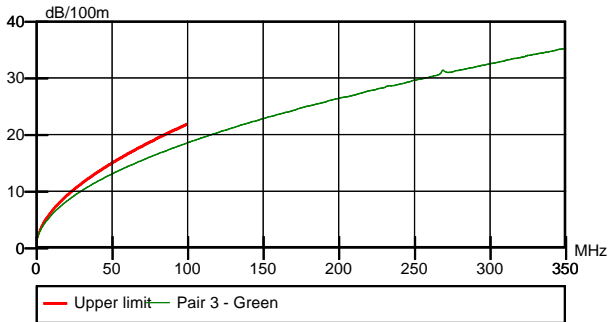
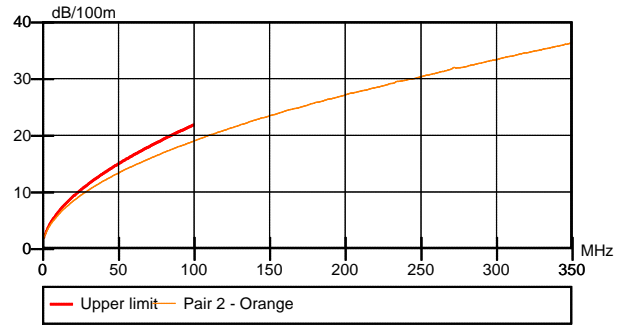
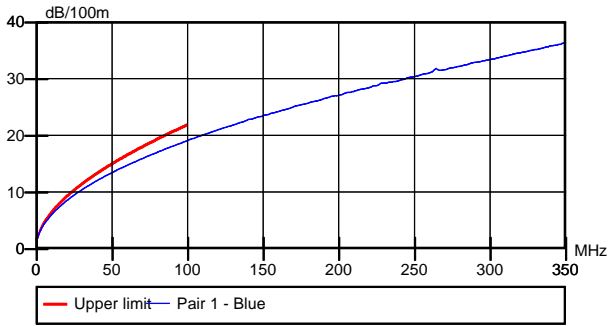
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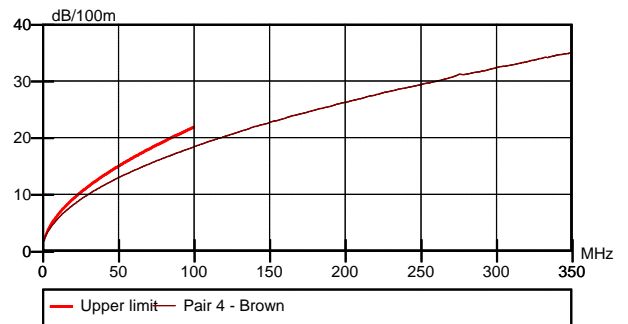
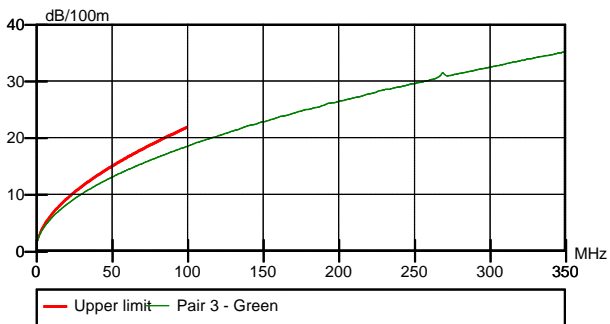
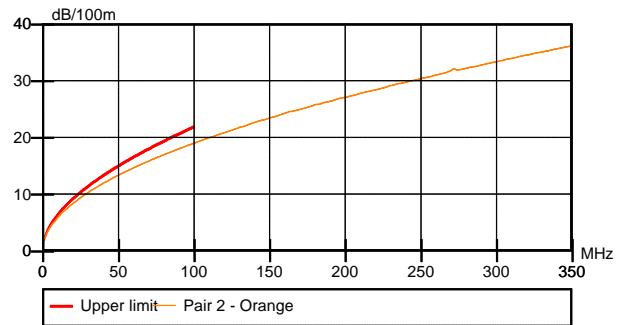
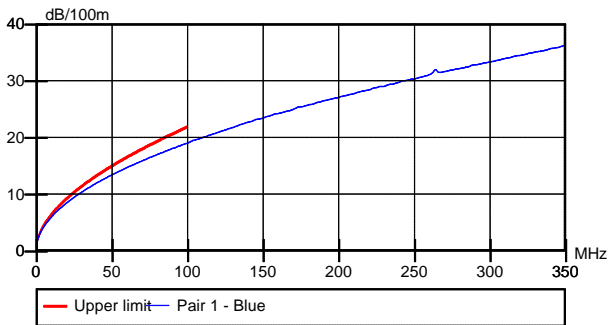
Return Loss Reverse



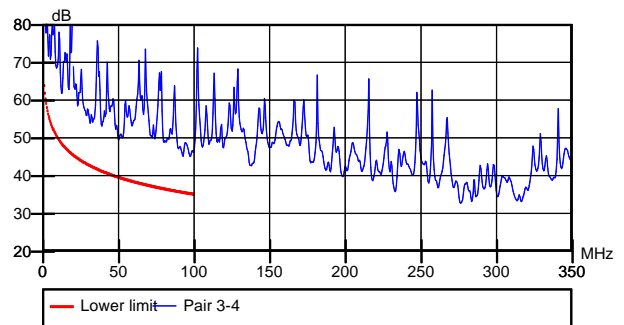
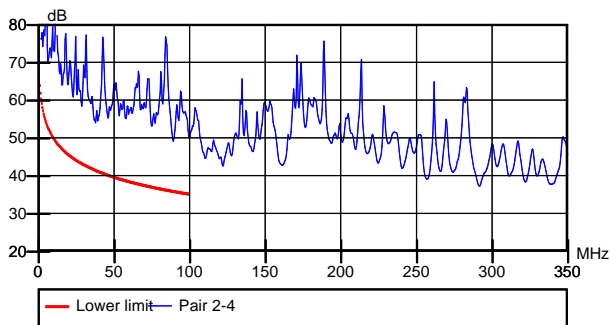
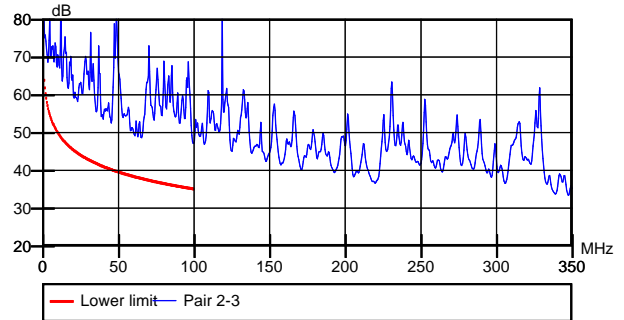
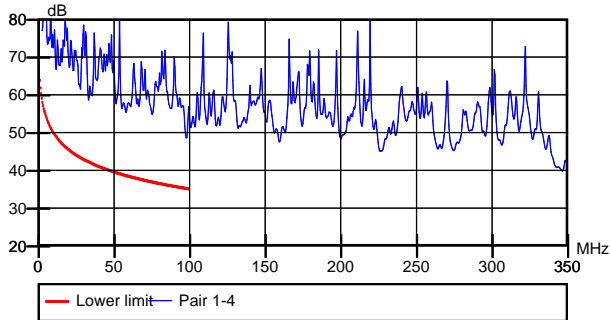
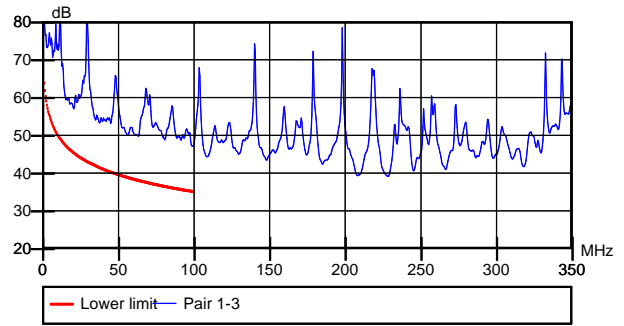
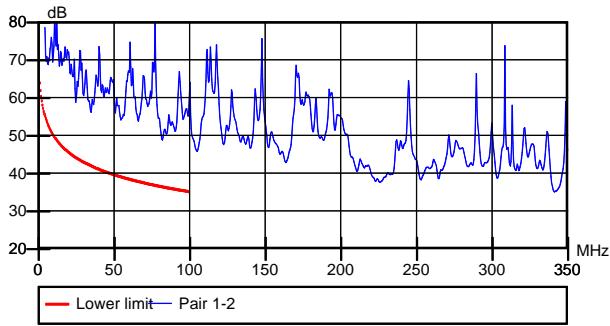
Pair	Margin dB	Value dB	Freq. MHz
1	6.19	26.60	1.21
2	7.94	28.35	1.21
3	6.17	26.59	1.21
4	6.77	27.86	1.65
1 REV	5.87	30.87	15.18
2 REV	6.73	27.15	1.21
3 REV	7.18	27.29	99.87
4 REV	6.75	27.56	79.35



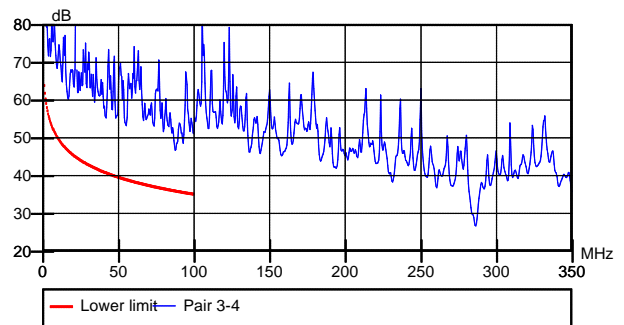
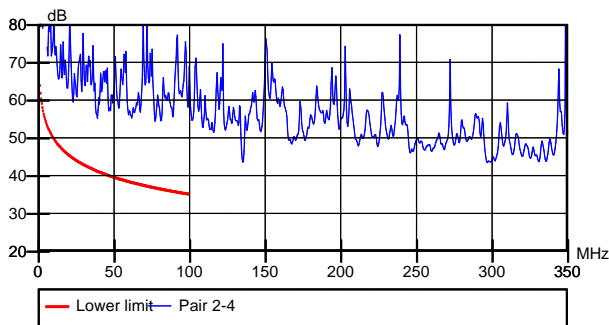
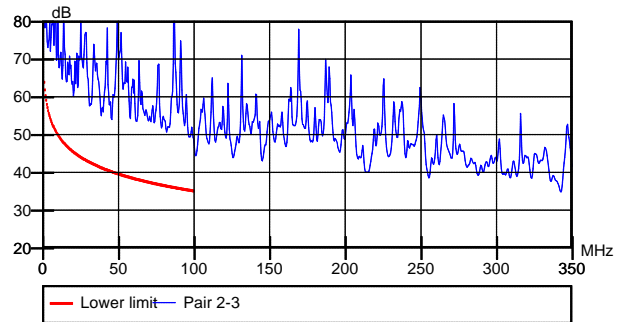
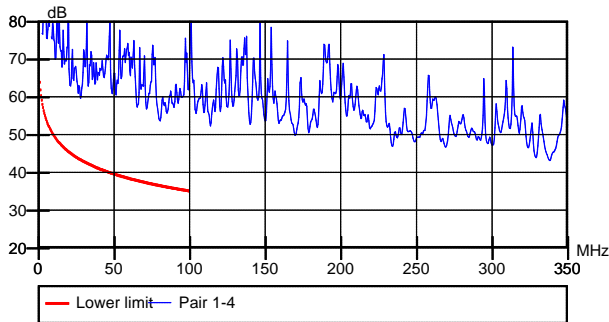
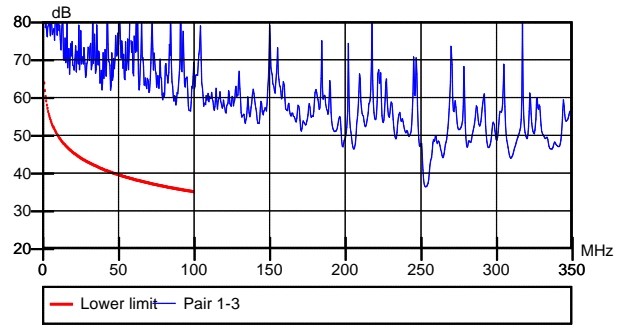
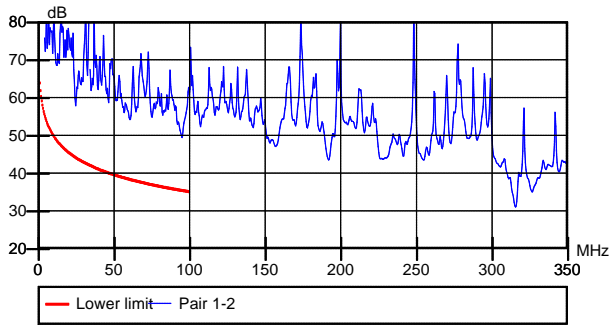
Attenuation Reverse



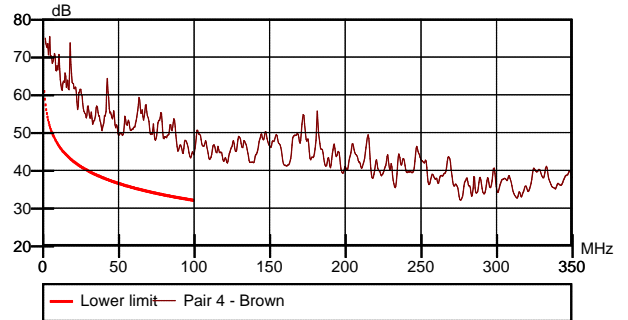
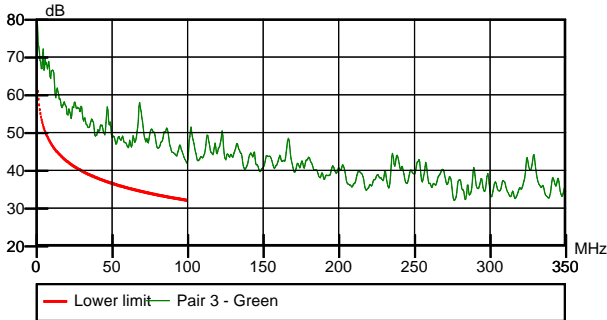
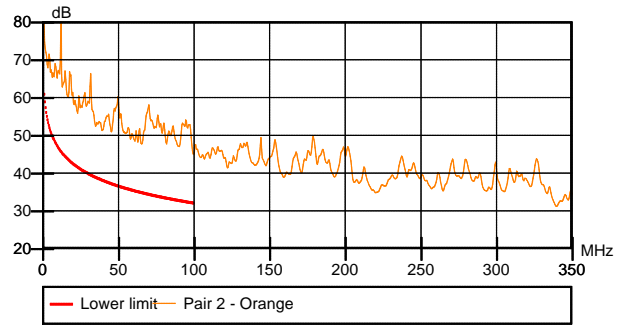
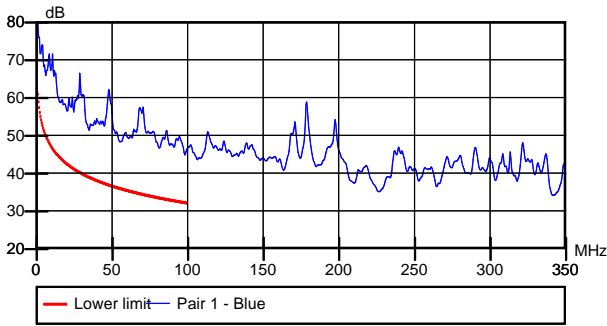
Pair	Margin dB/100m	Value dB/100m	Freq. MHz
1	0.04	2.19	1.21
2	0.02	2.21	1.21
3	0.05	2.18	1.21
4	0.06	2.18	1.21
1 REV	0.03	2.20	1.21
2 REV	0.04	2.19	1.21
3 REV	0.05	2.18	1.21
4 REV	0.08	2.16	1.21



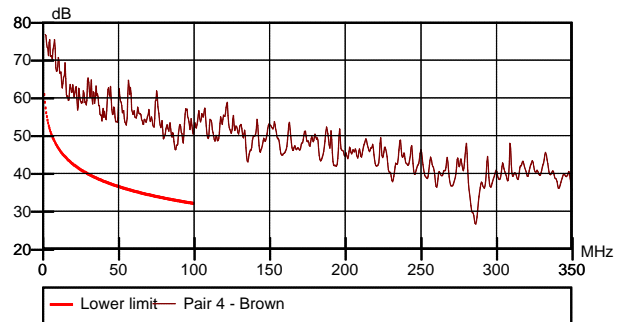
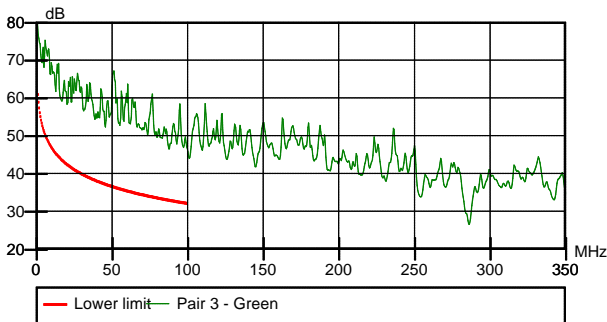
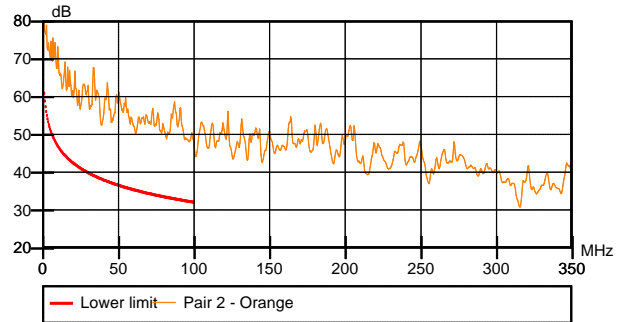
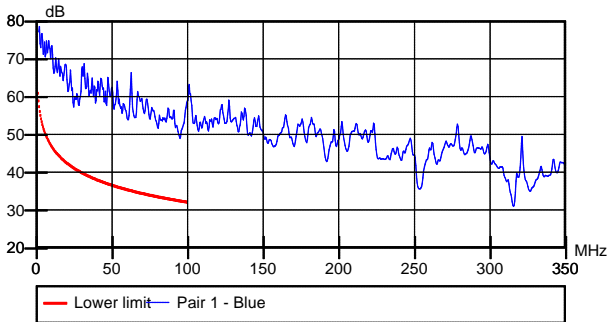
Pair	Margin dB	Value dB	Freq. MHz
1-2	12.14	48.74	81.97
1-3	10.92	49.97	56.21
1-4	13.19	48.64	97.68
2-3	10.54	48.87	62.76
2-4	12.36	53.98	37.88
3-4	9.40	45.19	92.88
1-2 REV	13.40	57.78	24.78
1-3 REV	16.38	78.44	1.65
1-4 REV	15.95	59.58	27.84
2-3 REV	13.34	48.64	99.87
2-4 REV	13.78	55.19	39.19
3-4 REV	10.58	46.74	87.64



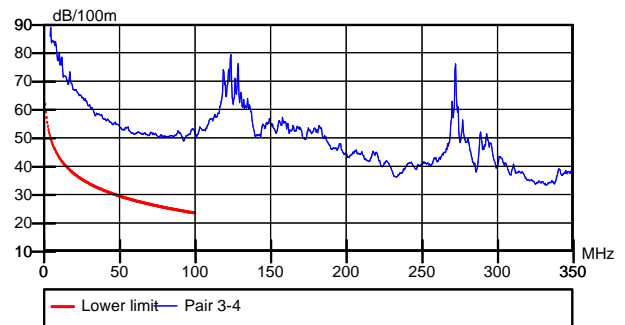
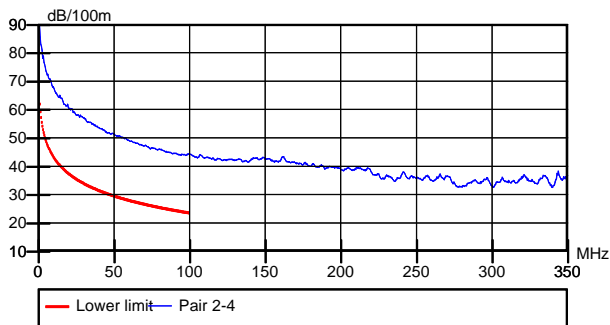
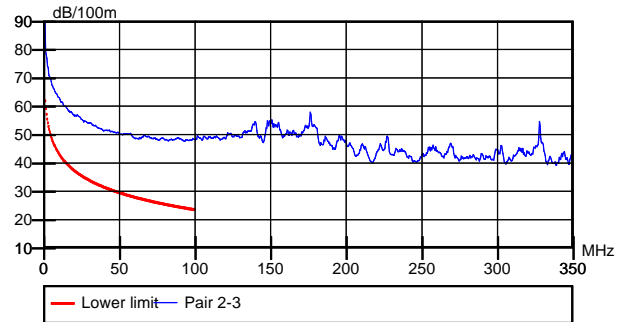
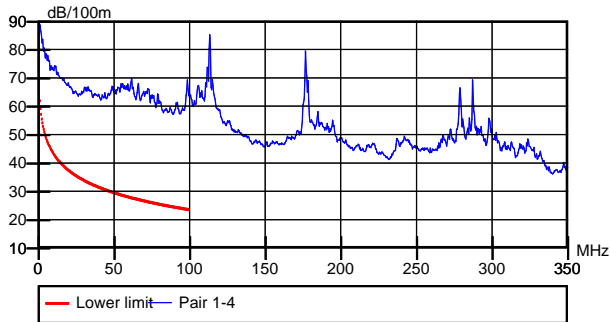
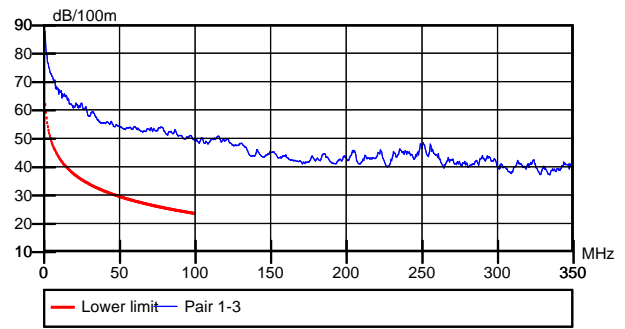
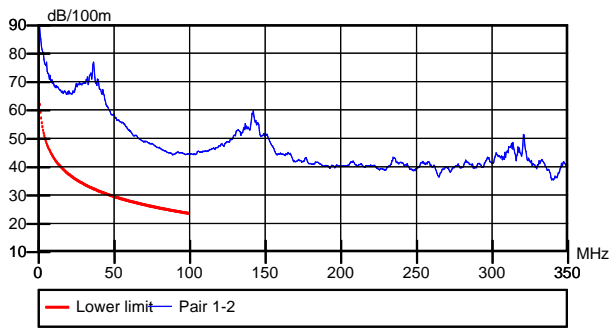
Pair	Margin dB	Value dB	Freq. MHz
1-2	12.14	48.74	81.97
1-3	10.92	49.97	56.21
1-4	13.19	48.64	97.68
2-3	10.54	48.87	62.76
2-4	12.36	53.98	37.88
3-4	9.40	45.19	92.88
1-2 REV	13.40	57.78	24.78
1-3 REV	16.38	78.44	1.65
1-4 REV	15.95	59.58	27.84
2-3 REV	13.34	48.64	99.87
2-4 REV	13.78	55.19	39.19
3-4 REV	10.58	46.74	87.64



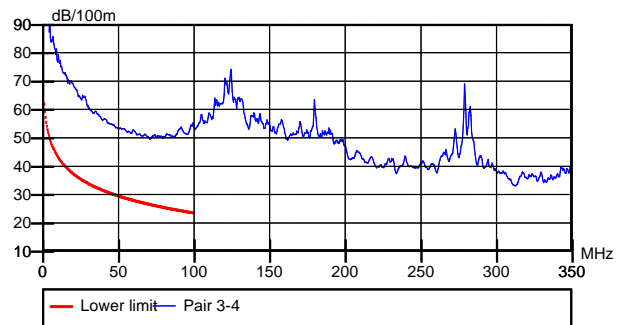
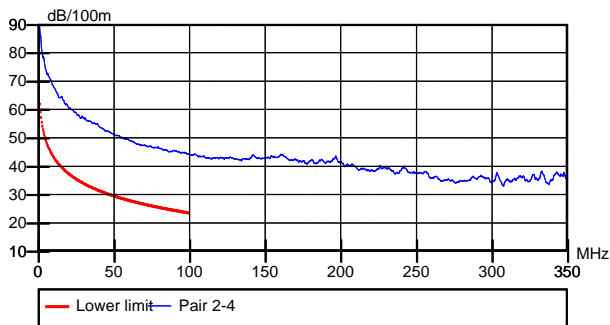
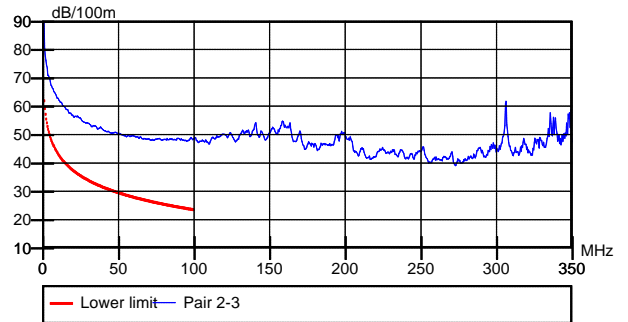
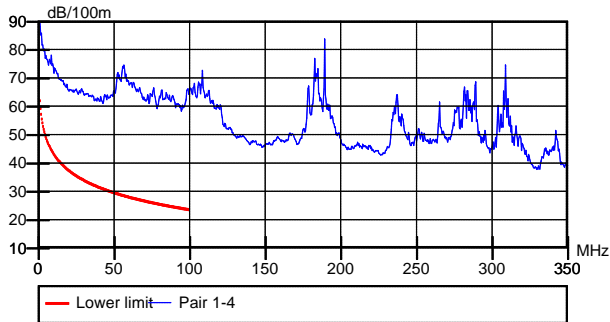
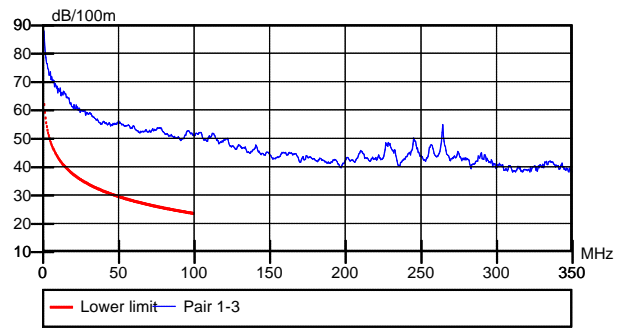
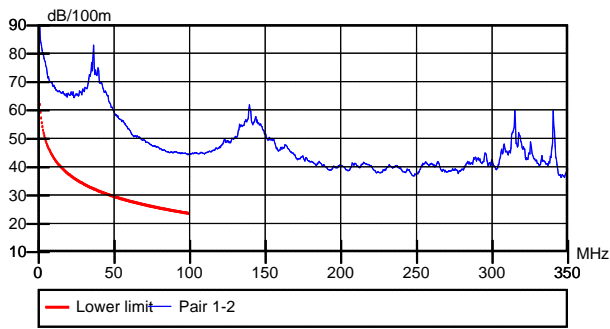
PS NEXT Reverse



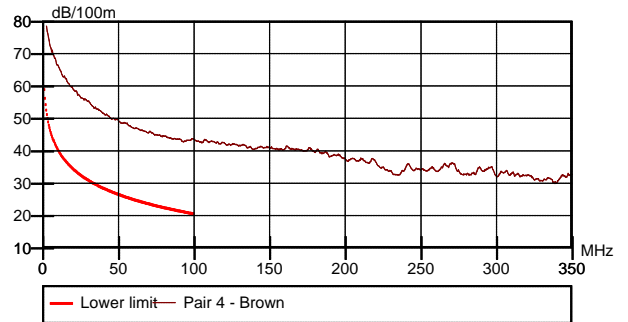
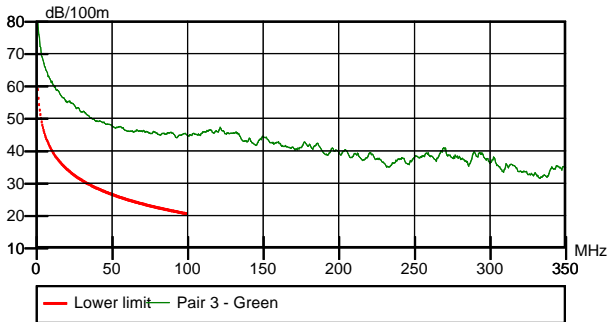
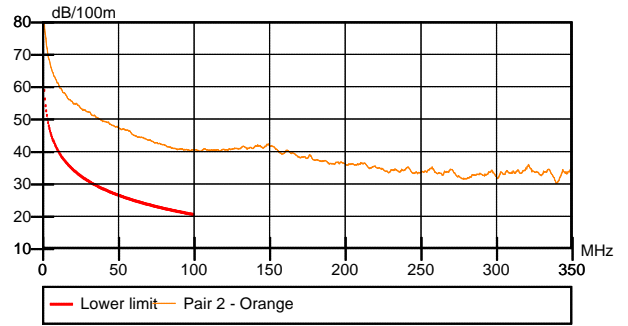
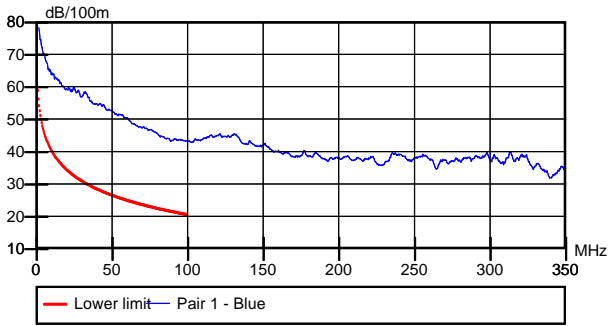
Pair	Margin dB	Value dB	Freq. MHz
1	12.14	48.29	55.34
2	12.62	47.69	65.38
3	9.66	42.00	99.43
4	10.88	43.33	97.68
1 REV	15.79	57.18	24.78
2 REV	13.97	52.44	38.75
3 REV	13.36	46.52	87.64
4 REV	13.15	46.31	87.64



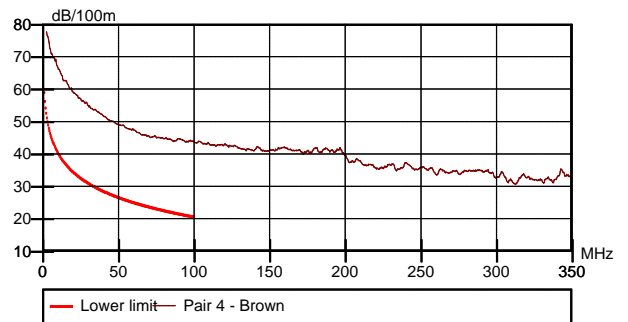
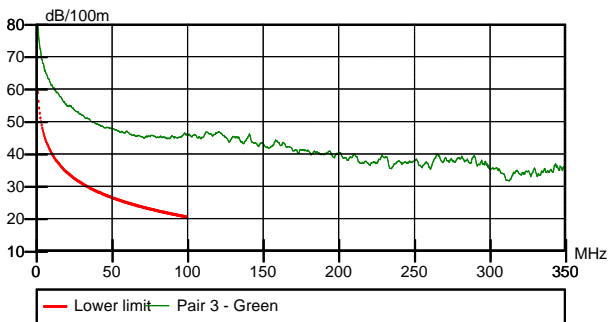
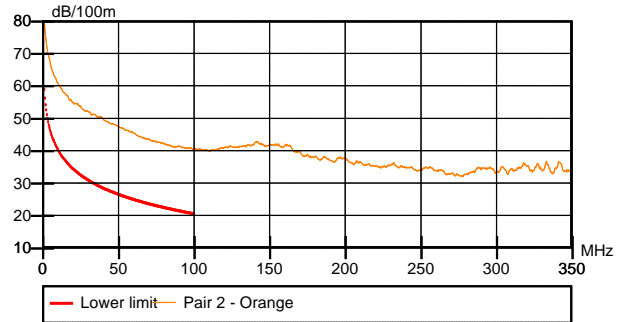
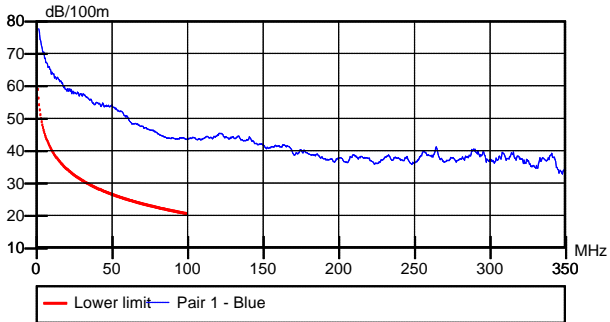
Pair	Margin dB/100m	Value dB/100m	Freq. MHz
1-2	19.37	44.18	88.95
1-3	20.58	80.06	1.65
1-4	26.28	79.47	3.39
2-3	17.25	79.41	1.21
2-4	19.56	44.42	88.52
3-4	23.03	51.31	59.70
1-2 REV	19.91	44.94	86.77
1-3 REV	20.52	80.00	1.65
1-4 REV	25.64	85.11	1.65
2-3 REV	17.69	70.88	3.39
2-4 REV	19.99	45.06	86.33
3-4 REV	22.68	49.45	71.05



Pair	Margin dB/100m	Value dB/100m	Freq. MHz
1-2	19.37	44.18	88.95
1-3	20.58	80.06	1.65
1-4	26.28	79.47	3.39
2-3	17.25	79.41	1.21
2-4	19.56	44.42	88.52
3-4	23.03	51.31	59.70
1-2 REV	19.91	44.94	86.77
1-3 REV	20.52	80.00	1.65
1-4 REV	25.64	85.11	1.65
2-3 REV	17.69	70.88	3.39
2-4 REV	19.99	45.06	86.33
3-4 REV	22.68	49.45	71.05

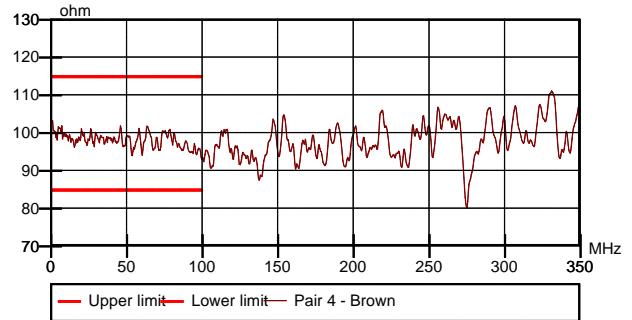
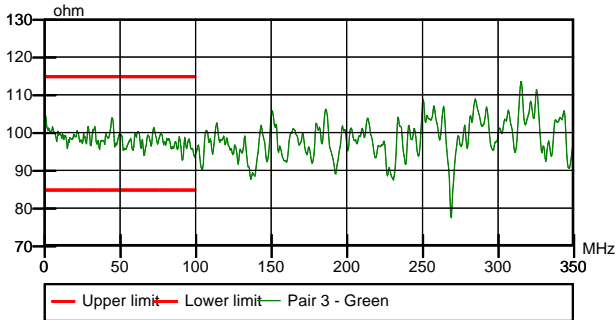
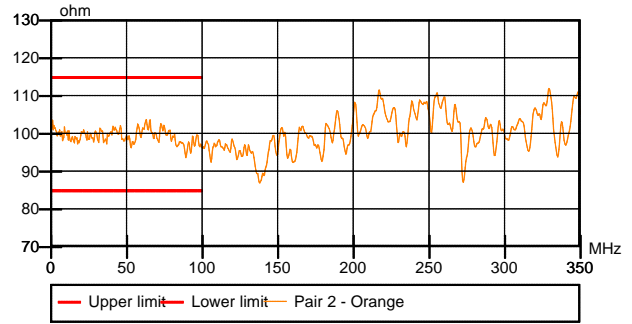
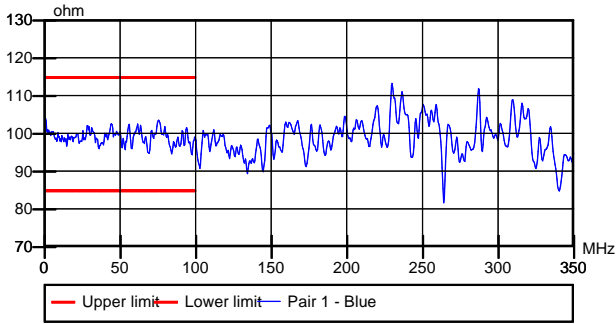


PS ELFEXT Reverse

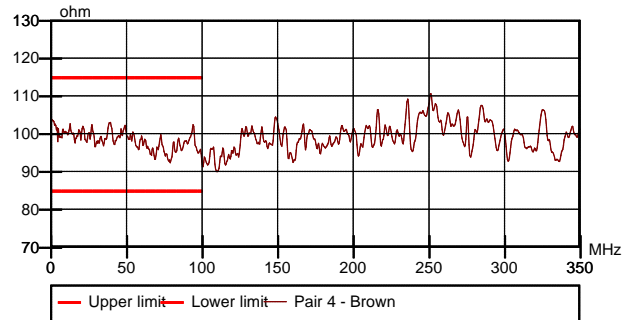
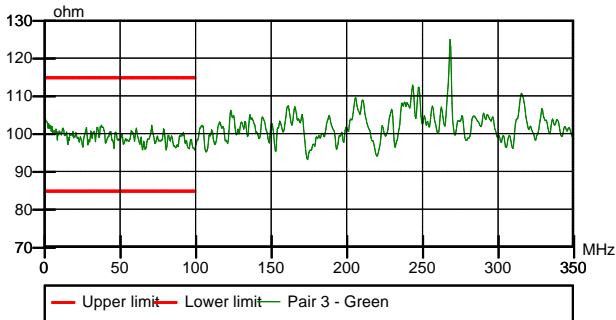
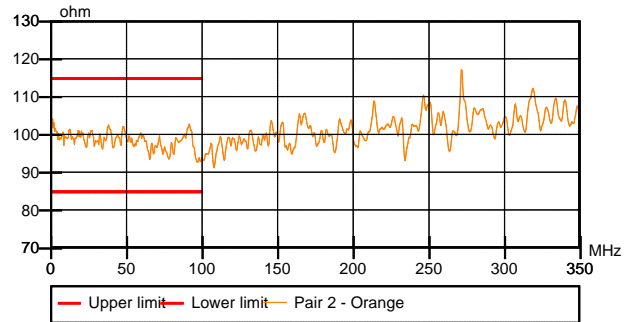
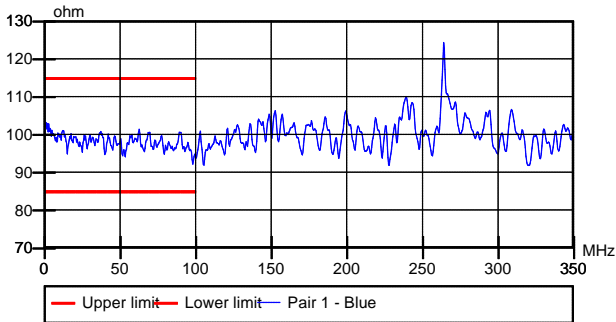


Pair	Margin Ohm	Value Ohm	Freq. MHz
1	21.34	43.16	88.95
1 REV	21.18	77.66	1.65
2	18.67	77.83	1.21
2 REV	19.02	41.10	86.33
3	18.75	77.91	1.21
3 REV	19.14	69.33	3.39
4	21.30	42.74	92.88
4 REV	21.29	45.06	71.05

Input Impedance Forward

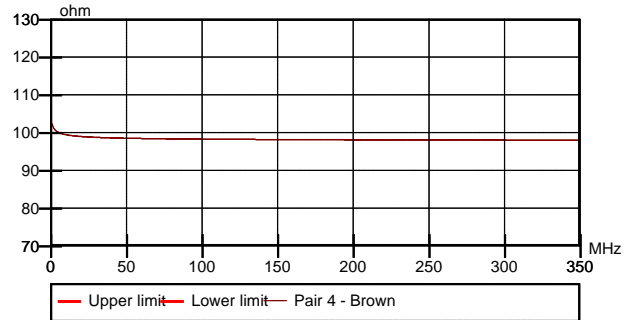
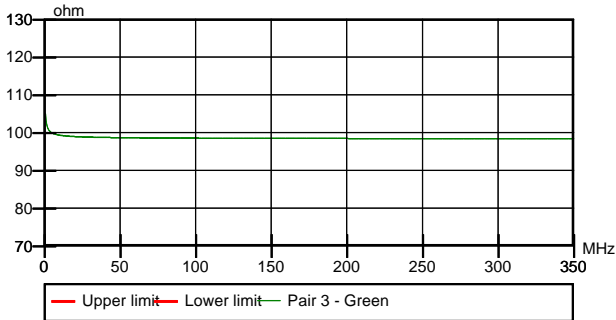
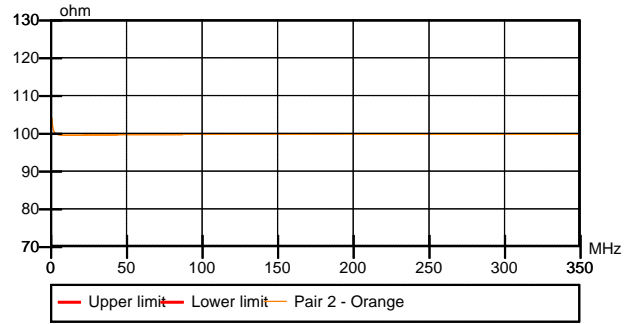
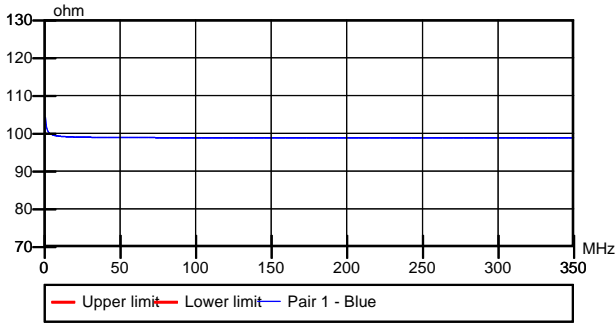


Input Impedance Reverse

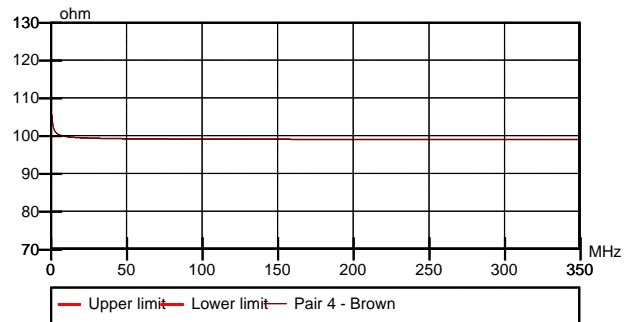
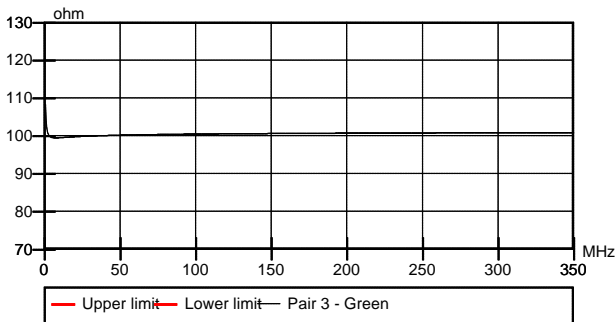
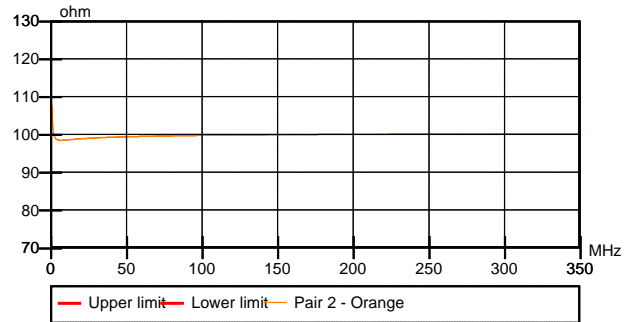
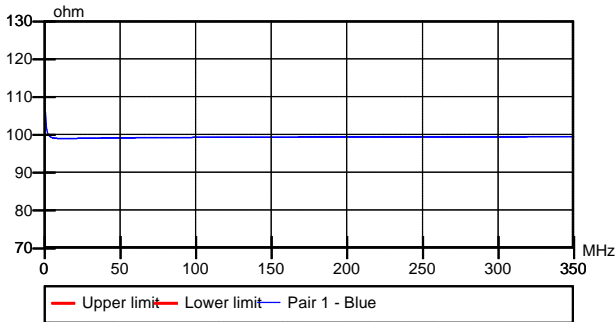


Pair	Margin Ohm	Value Ohm	Freq. MHz
1	9.30	94.30	97.68
2	8.54	93.54	89.39
3	7.72	92.72	91.13
4	7.88	92.88	99.87
1 REV	7.18	92.18	98.12
2 REV	7.72	92.72	97.25
3 REV	10.67	95.67	64.94
4 REV	7.34	92.34	78.91

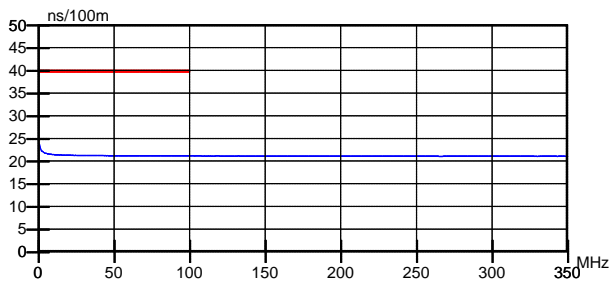
Fitted Impedance Forward



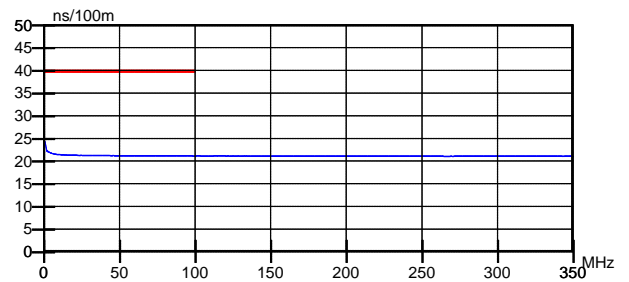
Fitted Impedance Reverse



Delay Skew Forward



Delay Skew Reverse





HCS Official Test Report

HCS Part Number: H5E-00411

Cable Type: CAT5e FTP Horizontal 4x2x24# PVC

Date: 06.08.2006

Batch Number: 23006421-00

Attenuation [dB/100m] @ discrete frequencies

Freq. (Mhz)	Pair 1	Pair 2	Pair 3	Pair 4	Spec max
1.000	2.00	2.02	1.99	2.00	2.04
4.000	3.79	3.74	3.70	3.65	4.05
8.000	5.32	5.25	5.17	5.11	5.77
10.000	5.95	5.86	5.79	5.71	6.47
16.000	7.52	7.45	7.33	7.25	8.25
20.000	8.44	8.37	8.22	8.13	9.27
25.000	9.45	9.38	9.20	9.11	10.42
31.250	10.57	10.51	10.30	10.21	11.72
62.500	15.00	14.94	14.60	14.48	16.99
100.000	19.06	19.01	18.55	18.39	21.97

Propagation Delay [ns/100m]

Freq. (MHz)	Pair 1	Pair 2	Pair 3	Pair 4	Upper limit
5.000	519.30	504.87	509.96	497.55	550.10

Volacity of Propagation [%]

Freq. (MHz)	Pair 1	Pair 2	Pair 3	Pair 4	Specs Min.
5.000	64.23	66.07	65.41	67.04	59.66