

### Attenuation at Specific Frequencies

<b>Sample #1 Round Cable 28 AWG 7/36 Tinned</b>		80 MHz	160 MHz	200 MHz
Spectra-Strip Data	tan / white	6.30	9.41	10.76
Hitachi Data	"pair 1"	7.04	10.94	12.63
Madison Data	Wht-Brn-Brn/Wht	6.36	9.54	10.89
Seagate Data	Tan / White	6.26	9.40	10.84
Spectra-Strip Data	blue / white	6.14	9.15	10.23
Hitachi Data	"pair 2"	6.32	9.86	11.10
Madison Data	Wht/Blu-Blu/Wht	6.18	9.29	10.49
Seagate Data	White / Blue	6.12	9.17	10.33
Spectra-Strip Data	orange / violet	6.03	9.02	10.02
Hitachi Data	"pair 3"	6.15	9.60	11.06
Madison Data	Org/Vio-Vio/Org	6.12	9.10	10.28
Seagate Data	Orange / Violet	6.10	9.04	10.30

<b>Sample #2 Round Cable 30 AWG Solid Tinned</b>		80 MHz	160 MHz	200 MHz
Spectra-Strip Data	tan / white	6.29	9.29	10.79
Hitachi Data	"pair 1"	7.90	11.20	12.40
Madison Data	Wht/Tan-Tan/Wht	6.15	9.03	10.44
Seagate Data	Tan / White	5.94	8.93	10.01
Spectra-Strip Data	blue / white	6.37	9.21	10.51
Hitachi Data	"pair 2"	8.40	11.40	12.90
Madison Data	Wht/Blu-Blu/Wht	6.15	9.02	10.45
Seagate Data	White / Blue	6.12	8.98	10.42
Spectra-Strip Data	orange / violet	6.48	9.60	10.87
Hitachi Data	"pair 3"	8.40	11.40	13.30
Madison Data	Org/Vio-Vio/Org	6.47	9.56	10.87
Seagate Data	Orange / Violet	6.28	9.37	10.74

<b>Sample #3 Ribbon, Twisted Pairs, NO Flats</b>		80 MHz	160 MHz	200 MHz
Spectra-Strip Data	pair 1	6.22	9.25	11.41
Hitachi Data	"pair 1"	6.20	9.20	11.70
Madison Data	Wht-Blue (pair 1)	6.18	8.60	10.09
Seagate Data	Blue / White	6.17	9.24	10.89
Spectra-Strip Data	pair 3	6.09	10.21	11.98
Hitachi Data	"pair 2"	6.40	9.30	10.70
Madison Data	Wht-Org	6.34	8.99	10.59
Seagate Data	Orange / White 1	6.02	10.29	11.81

Spectra-Strip Data	pair 5	6.01	9.49	10.29
Hitachi Data	"pair 3"	6.10	9.00	11.20
Madison Data	-----	-----	-----	-----
Seagate Data	Orange / White 2	5.97	9.34	10.21

<b>Sample #4 Ribbon, Twisted Pairs, WITH Flats</b>		80 MHz	160 MHz	200 MHz
Spectra-Strip Data	pair 1	9.89	14.94	22.05
Hitachi Data	"pair 1"	9.20	15.30	22.70
Madison Data	Red-Yel (pair 1?)	9.14	14.37	23.25
Seagate Data	Red / White	10.08	14.18	21.31
Spectra-Strip Data	pair 3	21.23	23.39	29.37
Hitachi Data	"pair 2"	14.20	35.10	35.00
Madison Data	Blue-Yel	11.97	30.64	34.59
Seagate Data	Blue / White 1	18.70	22.05	28.43
Spectra-Strip Data	pair 5	26.02	17.40	33.20
Hitachi Data	"pair 3"	15.60	22.80	23.30
Madison Data	-----	-----	-----	-----
Seagate Data	Blue / White 2	24.64	16.71	30.27

**Attenuation at Specific Frequencies**

<b>Spectra-Strip Data</b>		<<<< Spectra-Strip Data >>>>		
		80 MHz	160 MHz	200 MHz
Sample #1 Round Cable 28 AWG 7/36 Tinned	tan / white	6.30	9.41	10.76
	blue / white	6.14	9.15	10.23
	orange / violet	6.03	9.02	10.02
Sample #2 Round Cable 30 AWG Solid Tinned	tan / white	6.29	9.29	10.79
	blue / white	6.37	9.21	10.51
	orange / violet	6.48	9.60	10.87
Sample #3 Ribbon, Twisted Pairs, NO Flats	pair 1	6.22	9.25	11.41
	pair 3	6.09	10.21	11.98
	pair 5	6.01	9.49	10.29
Sample #4 Ribbon, Twisted Pairs, WITH Flats	pair 1	9.89	14.94	22.05
	pair 3	21.23	23.39	29.37
	pair 5	26.02	17.40	33.20

<b>Hitachi Data</b>		<<<<<<< Hitachi >>>>>>>>>		
		80 MHz	160 MHz	200 MHz
Sample #1 Round Cable 28 AWG 7/36 Tinned	"pair 1"	7.04	10.94	12.63
	"pair 2"	6.32	9.86	11.10
	"pair 3"	6.15	9.60	11.06
Sample #2 Round Cable 30 AWG Solid Tinned	"pair 1"	7.9	11.2	12.4
	"pair 2"	8.4	11.4	12.9
	"pair 3"	8.4	11.4	13.3
Sample #3 Ribbon, Twisted Pairs, NO Flats	"pair 1"	6.20	9.20	11.70
	"pair 2"	6.40	9.30	10.70
	"pair 3"	6.10	9.00	11.20
Sample #4 Ribbon, Twisted Pairs, WITH Flats	"pair 1"	9.2	15.3	22.7
	"pair 2"	14.2	35.1	35
	"pair 3"	15.6	22.8	23.3

<b>Madison Data</b>		<<<<<<< Madison >>>>>>>>>		
		80 MHz	160 MHz	200 MHz
Sample #1 Round Cable 28 AWG 7/36 Tinned	Wht-Brn-Brn/Wht	6.36	9.54	10.89
	Wht/Blu-Blu/Wht	6.18	9.29	10.49
	Org/Vio-Vio/Org	6.12	9.1	10.28
Sample #2 Round Cable 30 AWG Solid Tinned	Wht/Tan-Tan/Wht	6.15	9.03	10.44
	Wht/Blu-Blu/Wht	6.15	9.02	10.45
	Org/Vio-Vio/Org	6.47	9.56	10.87
Sample #3 Ribbon, Twisted Pairs, NO Flats	Wht-Blue (pair 1)	6.18	8.6	10.09
	Wht-Org	6.34	8.99	10.59
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Sample #4 Ribbon, Twisted Pairs, WITH Flats	Red-Yel (pair 1?)	9.14	14.37	23.25
	Blue-Yel	11.97	30.64	34.59
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**Seagate Data**

<<<<<<< Seagate >>>>>>>>>		
80 MHz	160 MHz	200 MHz

Sample #1 Round Cable 28 AWG 7/36 Tinned	Tan / White	6.26	9.40	10.84
	White / Blue	6.12	9.17	10.33
	Orange / Violet	6.10	9.04	10.30
Sample #2 Round Cable 30 AWG Solid Tinned	Tan / White	5.94	8.93	10.01
	White / Blue	6.12	8.98	10.42
	Orange / Violet	6.28	9.37	10.74
Sample #3 Ribbon, Twisted Pairs, NO Flats	Blue / White	6.17	9.24	10.89
	Orange / White 1	6.02	10.29	11.81
	Orange / White 2	5.97	9.34	10.21
Sample #4 Ribbon, Twisted Pairs, WITH Flats	Red / White	10.08	14.18	21.31
	Blue / White 1	18.70	22.05	28.43
	Blue / White 2	24.64	16.71	30.27

**Delay & Within-Pair Skew per 25 meters**

<b>Spectra-Strip Data</b>		Wire A	Wire B	(A+B) / 2
Sample #1 Round Cable 28 AWG 7/36 Tinned	tan / white	129.569	129.562	129.566
	blue / white	128.897	128.888	128.893
	orange / violet	127.813	127.799	127.806
Sample #2 Round Cable 30 AWG Solid Tinned	tan / white	125.014	125.021	125.017
	blue / white	125.807	125.801	125.804
	orange / violet	125.962	125.934	125.948
Sample #3 Ribbon, Twisted Pairs, NO Flats	pair 1	117.394	117.377	117.386
	pair 3	118.414	118.446	118.430
	pair 5	118.365	118.343	118.354
Sample #4 Ribbon, Twisted Pairs, WITH Flats	pair 1	120.089	120.188	120.139
	pair 3	125.412	125.430	125.421
	pair 5	125.551	125.555	125.553

**Hitachi Data - None Reported**

**Madison Data - None Reported**

**Seagate Data - None Reported**

In-pair Skew pair-pair Skew

0.007	
0.009	
0.014	1.76
0.008	
0.006	
0.028	0.93
0.017	
0.032	
0.022	1.04
0.099	
0.018	
0.004	5.41