

Cat5e to Cat7a Standard Cat7a IEC61156-5-2009

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB/100m)	Psnext (dB/100m)	Return Loss (dB/100m)	Elfext (dB/100m)	Pselfext (dB/100m)	Propagation Delay(ns)	Delay Skew (µs)	ACR (dB/100m)	PS-ACR (dB/100m)
1	2.1	78.0	75.0	20.0	78.0	75.0	570.0	<0.025	75.9	72.9
4	3.7	78.0	75.0	23.0	78.0	75.0	552.0	<0.025	74.3	71.3
10	5.8	78.0	75.0	25.0	75.3	72.3	545.4	<0.025	72.2	69.2
16	7.3	78.0	75.0	25.0	71.2	68.2	543.0	<0.025	70.7	67.7
31.25	10.3	78.0	75.0	23.6	65.4	62.4	540.4	<0.025	67.7	64.7
62.50	14.6	78.0	75.0	21.5	59.4	56.4	538.6	<0.025	63.4	60.4
100	18.5	75.4	72.4	20.1	55.3	52.3	537.6	<0.025	56.9	53.9
250	29.7	69.4	66.4	17.3	47.3	44.3	536.3	<0.025	39.7	36.7
300	32.7	68.2	65.2	17.3	45.8	42.8	536.1	<0.025	35.6	32.6
350	35.4	67.2	64.2	17.3	44.4	41.8	535.9	<0.025	31.8	28.8
400	38.0	66.4	63.4	17.3	43.3	40.3	535.8	<0.025	28.4	25.4
550	45.0	64.3	61.3	17.3	40.5	37.5	535.5	<0.025	19.3	16.3
600	47.1	63.7	60.7	17.3	39.7	36.7	535.5	<0.025	16.6	13.6
650	49.2	63.2	60.2	17.3	39.0	36.0	535.4	<0.025	14.1	11.1
750	53.1	62.3	59.3	17.3	37.8	34.8	535.3	<0.025	9.2	6.2
850	54.9	61.9	58.9	17.3	37.2	34.2	535.3	<0.025	6.9	3.9
900	58.5	61.1	58.1	17.3	36.2	33.2	535.2	<0.025	2.6	-0.4
1000	61.9	60.4	57.4	17.3	35.3	32.3	535.1	<0.025	-1.5	-4.5

Cat7 IEC61156-5-2009

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB/100m)	Psnext (dB/100m)	Return Loss (dB/100m)	Elfext (dB/100m)	Pselfext (dB/100m)	Propagation Delay(ns)	Delay Skew (µs)	ACR (dB/100m)	PS-ACR (dB/100m)
1	2.0	78.0	75.0	20.0	78.0	75.0	570.0	<0.025	76.0	73.0
4	3.7	78.0	75.0	23.0	78.0	75.0	552.0	<0.025	74.3	71.3
10	5.9	78.0	75.0	25.0	75.3	72.3	545.4	<0.025	72.1	69.1
16	7.4	78.0	75.0	25.0	71.2	68.2	543.0	<0.025	70.6	67.6
31.25	10.4	78.0	75.0	23.6	65.4	62.4	540.4	<0.025	67.6	64.6
62.50	14.9	75.5	72.5	21.5	59.4	56.4	538.6	<0.025	60.6	57.6
100	19.0	72.4	69.4	20.1	55.3	52.3	537.6	<0.025	53.4	50.4
250	31.0	66.4	63.4	17.3	47.3	44.3	536.3	<0.025	35.5	32.5
300	34.2	65.2	62.2	17.3	45.8	42.8	536.1	<0.025	31.1	28.1
350	37.2	64.2	61.2	17.3	44.4	42.4	535.9	<0.025	27.1	24.1
400	40.0	63.4	60.4	17.3	43.3	40.3	535.8	<0.025	23.4	20.4
550	47.7	61.3	58.3	17.3	40.5	37.5	535.5	<0.025	13.6	10.6
600	50.1	60.7	57.7	17.3	39.7	36.7	535.5	<0.025	10.6	7.6
*650	52.4	60.2	57.2	17.3	39.0	36.0	535.4	<0.025	7.8	5.8
*750	56.8	59.3	56.3	17.3	37.8	34.8	535.3	<0.025	2.5	-0.5
*850	61.0	58.5	55.5	17.3	36.7	33.7	535.2	<0.025	-2.5	-5.5
*900	63.0	58.1	55.1	17.3	36.2	33.2	535.2	<0.025	-4.9	-7.9
*1000	66.9	57.4	54.4	17.3	35.3	32.3	535.1	<0.025	-9.5	-12.5

Cat6a IEC61156-5-2009

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB/100m)	Psnext (dB/100m)	Return Loss (dB/100m)	Elfext (dB/100m)	Pselfext (dB/100m)	Propagation Delay(ns)	Delay Skew (µs)	ACR (dB/100m)	PS-ACR (dB/100m)
1	2.1	75.3	72.3	20.0	68.0	65.0	570.0	<0.045	73.2	70.2
4	3.8	66.3	63.3	23.0	56.0	53.0	552.0	<0.045	62.5	59.5
10	5.9	60.3	57.3	25.0	48.0	45.0	545.4	<0.045	54.4	51.4
16	7.5	57.2	54.2	25.0	43.9	40.9	543.0	<0.045	49.8	46.8
31.25	10.5	52.9	49.9	23.6	38.1	35.1	540.4	<0.045	42.4	39.4
62.50	15.0	48.4	45.4	21.5	32.1	29.1	538.6	<0.045	33.4	30.4
100	19.1	45.3	42.3	20.1	28.0	25.0	537.6	<0.045	26.2	23.2
250	31.1	39.3	36.3	17.3	20.0	17.0	536.3	<0.045	8.3	5.3
300	34.3	38.1	35.1	16.8	18.5	15.5	536.1	<0.045	3.9	0.9
350	37.2	37.1	34.1	16.3	17.1	14.1	535.9	<0.045	-0.1	-3.1
400	40.1	36.3	33.3	15.9	16.0	13.0	535.8	<0.045	-3.8	-6.8
500	45.3	34.8	31.8	15.2	14.0	11.0	535.6	<0.045	-10.4	-13.4
*600	50.1	33.6	30.6	14.7	12.4	9.4	535.5	<0.045	-16.4	-19.4
*650	52.3	33.1	30.1	14.4	11.7	8.7	535.4	<0.045	-19.2	-22.2

Cat5e to Cat7a Standard

Cat6 IEC61156-5-2009

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB/100m)	Psnext (dB/100m)	Return Loss (dB/100m)	Elfext (dB/100m)	Pselfext (dB/100m)	Propagation Delay(ns)	Delay Skew (µs)	ACR (dB/100m)	PS-ACR (dB/100m)
1	2.1	75.3	72.3	20.0	68.0	65.0	570.0	<0.045	73.2	70.2
4	3.8	66.3	63.3	23.0	56.0	53.0	552.0	<0.045	62.4	59.4
10	6.0	60.3	57.3	25.0	48.0	45.0	545.4	<0.045	54.3	51.3
16	7.6	57.2	54.2	25.0	43.9	40.9	543.0	<0.045	49.6	46.6
20	8.5	55.8	52.8	25.0	42.0	39.0	542.0	<0.045	47.3	44.3
31.25	10.7	52.9	49.9	23.6	38.1	35.1	540.4	<0.045	42.1	39.1
62.5	15.5	48.4	45.4	21.5	32.1	29.1	538.6	<0.045	32.9	29.9
100	19.9	45.3	42.3	20.1	28.0	25.0	537.6	<0.045	25.4	22.4
155.5	25.3	42.4	39.4	18.8	24.2	21.2	536.9	<0.045	17.1	14.1
175	27.1	41.7	38.7	18.4	23.1	20.1	536.7	<0.045	14.6	11.6
200	29.1	40.8	37.8	18.0	22.0	19.0	536.5	<0.045	11.6	8.6
250	33.0	39.3	36.3	17.3	20.0	17.0	536.3	<0.045	6.3	3.3
*300	36.6	38.1	35.1	16.8	18.5	15.5	536.1	<0.046	1.5	-1.5
*350	40.0	37.1	34.1	16.3	17.1	14.1	535.9	<0.045	-2.8	-5.8
*450	46.2	35.5	32.5	15.5	14.9	11.9	535.7	<0.045	-10.7	-13.7

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1	2.1	65.3	62.3	20.0	64.0	61.0	570.0	<0.045	63.2	60.2
4	4.1	56.3	53.3	23.0	52.0	49.0	552.0	<0.045	52.2	49.2
10	6.5	50.3	47.3	25.0	44.0	41.0	545.4	<0.045	43.8	40.8
16	8.3	47.2	44.2	25.0	39.9	36.9	543.0	<0.045	39.0	36.0
31.25	11.7	42.9	39.9	23.6	34.1	31.1	540.4	<0.045	31.1	28.1
62.5	17.0	38.4	35.4	21.5	28.1	25.1	538.6	<0.045	21.4	18.4
100	22.0	35.3	32.3	20.1	24.0	21.0	537.6	<0.045	13.3	10.3
*150	27.5	32.7	29.7	18.9	20.5	17.5	536.9	<0.045	5.1	2.1
*200	32.4	30.8	27.8	18.0	18.0	15.0	536.5	<0.045	-1.6	-4.6

* Value for reference only