

Technical Information



Maximum Transmission Distance at Serial Digital Data Rates

Data Rate:		143 Mb/s		177 Mb/s		270 Mb/s		360 Mb/s		540 Mb/s		1.5 Gb/s		3.0 Gb/s	
Spec:		SMPTE 259M		ITU-R BT. 601		SMPTE 259M		SMPTE 259M		SMPTE 344M		SMPTE 292M		SMPTE 292M	
Application:		Composite NTSC		Composite PAL		Component Video		Component Widescreen		Component Widescreen		HDTV		Progressive Scan HDTV	
Part No.	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	
179DT	500	152	450	137	380	116	340	104	280	85	110	34	80	24	
1855A	980	299	950	290	790	241	680	207	560	171	260	79	150	46	
1505A	1430	436	1360	415	1110	338	970	296	790	241	310	94	220	67	
8281	1430	436	1280	390	1000	305	870	265	700	213	260	79	160	49	
1694A	1880	573	1710	521	1430	436	1240	378	1010	308	400	122	270	82	
7855A	2730	832	2330	710	1670	509	1480	451	1200	366	470	143	330	101	
7731A	2750	838	2480	756	2040	622	1760	536	1430	436	550	168	360	110	

The serial digital interconnect standards are designed to operate where the signal loss at 1/2 the clock frequency does not exceed the approximate loss values listed below. The maximum length values shown are based on typical attenuation values for the cables listed and the following criteria:

- Maximum length = 30 dB loss at 1/2 the clock frequency: SMPTE 259M, PAL, Widescreen.
- Maximum length = 20 dB loss at 1/2 the clock frequency: SMPTE 292M.

The bit error rate (BER) can vary dramatically as the calculated distances are approached. BER is dependent on receiver design and the losses of the actual coax used. Distribution and routing equipment manufacturers should be contacted to verify their maximum recommended transmission.

Return Loss Headroom (1694A)

