

To: T10
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Comparison of EIA-485 and ISO/IEC 8482 (Normative portions)

Parameter	EIA-485 April 1983	ISO/IEC 8482 December 1993
Data Rate (per pair)	=< 10 Mb/S	=< 12 Mb/S
Rise / Fall Time 10-90%	=< 30% half bit time (50 pF / 54 Ohms) +/- 10% of steady state	=< 30% half bit time (50 pF / 54 Ohms) +/- 10% of steady state
Cable length	Not specified	=< 1,200 meters
Stub length	Zero assumed	Short as possible and =< 1 m
Operating common mode	+/- 7 V (lower if no generator offset)	-7 to +12 V (generator shorted) (includes noise) with ITU-T recommendation +/- 7 V
Total loading	=< 32 unit loads	=< 32 unit loads
D.C. Unit load range (U.L.) (while V_{ib} or V_{ia} = 0 V)	From -0.8 mA at -7 V to 1.0 mA at +12 V	From -0.8 mA at -7 V to 1.0 mA at +12 V
A.C. Loading	May be in a future revision. (Guidance in informative appendix.)	Application dependant - beyond the scope. (Guidance in informative annex.)
Effective total termination	=> 60 Ohms(120 Ohms each end)	=> 60 Ohms(120 Ohms each end)
Differential Driver output	1.5 to 5.0 V terminated at 54 Ohms	1.5 to 5.0 V terminated at 54 Ohm with binary state differences =< 0.2 V and ITU-T recommendation of 2.0 V to 6.0 V at 100 Ohms
Differential Driver output	=>1.5 V to =< 6.0 V Open circuit	=>1.5 V to =< 6.0 V Open circuit
Single ended Driver output	=< 6.0 V Open circuit	=< 6.0 V Open circuit
Receiver sensitivity	= +/- 0.2 V (-7 to +12 V)	= +/- 0.2 V (-7 to +12 V) Allows internal bias =< 5 V ITU-T recommendation =< 3.0 V (-10 to +10 V)
Hysteresis	Allowed to prevent oscillation	Not mentioned
Balance	= +/- 0.4 V with matched 1500/nU.L. Ohms resistors	= +/- 0.4 V with matched 1500 Ohms resistors
Generator current limiting	=< 250 mA with 1.2 V/ μ S	=< 250 mA ITU-T recommendation =< 150 mA
Short circuit pair	No damage	No damage
Transient over-voltage with no damage	15 μ S pulses at 1% duty cycle at +/- 25 V from 100 Ohms source	Transients included in the -7 to +12 V range
Generator offset	- 1.0 to +3.0 V	=< 3.0 V with binary state difference =< 0.2 V