

To: T10 Membership
Re: Bare Bones Voltage Bias
Date: July 14, 1997

T10/97-214r1

- Bare Bones Voltage Bias
- Appeal for Any Reduction, which would be Goodness

Bare Bones Budget

Reason that this is needed is because present maximum voltage bias is 125mV.

Minimum output voltage swing is 270mV.

Only a 2.16 to 1 ratio.

Normal ratio I could find in any application notes was about a 10 to 1 ratio.

50-62.5mV range is attainable

1. 8.8mV for +- 10uA input leakage
2. 12mv for twisted pair cable cross-talk
3. 20mV for receiver input offset
4. 9.2mV for receiver overdrive and margin

Any Reduction is Goodness

Changing the termination bias voltage to 36mV will affect both the termination & output driver designs.

A 25mV drop in the termination bias voltage only requires a terminator to change. We are better off leaving the output driver designs unchanged.