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Attn: SCSI Driver and Terminator Specialists   02 Oct 1991

From: Bill Spence

Subject: Agenda for the 10/10 Irvine S/E Driver/Terminator Conference

The following is proposed as a detailed agenda for our conference:

A. The driver in assertion.

   1. Should the SCSI-3 standard still limit the current sourced by a termi-
       nator to 22.4 ma, or can the limit be raised to 24 ma?
   2. Below 0.5 volts, can the current limit be replaced by a power limit,
       either 11.2 or 12 mw? If so, up to what absolute max current?
       Note: Obviously, the purpose of this item is either to validate the
             extra current sourced by the Trung Le terminator (and possibly
             others to come in the future) or to limit it.
   3. Should the standard attempt to address driver fall times?

B. The high current sourcing terminator.

   1. Do we need any limit on the current which a terminator may draw from
       the TERMPWR line?
   2. Is there a graceful way now that we could reclaim the line opposite
       the TERMPWR line and make it a second TERMPWR line (in the A cable)?
       Note: If extra current sourcing is applied to more than 2 or 3 lines
             in the bus, and specially if the S/E length limit is relaxed, a
             single AWG 28 conductor becomes increasingly unsatisfactory as
             the TERMPWR carrier.
   4. Should the standard speak further to TERMPWR voltage levels that the
       the 4.25 v min at the TERMPWR source?   (initials: TI),
       Note: There is now available, from an unnamed company/ a 2.85 volt
             regulator that regulates with TERMPWR voltage down to 3.45 v.
             But permitting quite low TERMPWR voltages may seriously impact
             the performance of the Trung Le terminator.
   5. Should the standard speak to the benefits from stronger current
       in the region above 0.5 v?

C. The driver in active negation.

   1. Should the standard speak to the minimum levels of active negation?
   2. Is this minimum level compatible with the Boulay terminator?
       Ref: X3T9.2/91-130 and X3T9.2/91-151.
   3. Should the standard speak to the maximum levels of active negation?
   4. Are active negation drivers self-protecting when shorted to ground?
       Should they be?
   5. Is this maximum level compatible with the Trung Le terminator?
   6. Should the standard attempt to address driver rise times?

D. Items re Fast S/E SCSI not already covered above from David Steele's
    proposal X3T9.2/91-64R1.

I suggest that we must give priority to concerns which involve the driver and
terminator designers present. Other items of related interest can then be
taken up if time permits. I suggest that if necessary we terminate debate on
any one topic so as to make sure we cover the agenda. Concensus on every item
is the goal, but where that is impossible, I propose to log all viewpoints in
the minutes.

The attached chart, an extension of the one in X3T9.2/91-126R1, presents a number of points of debate. The driver characteristics shown are assumed; one objective of the conference is to receive better driver characterization information. It shows a possible operating point of possible active negation drivers and the Trung Le/Aeronics terminators at 3.5 v, with 60 ma sourced by the driver and 30 ma sunk by each terminator. It also shows a possible operating point of possible drivers and the Trung Le/Aeronics terminator at 0.26 v, with 62 ma sunk by the driver and 31 ma sourced by each terminator.

My primary contact number for phone and fax is now 512-255-0339. For some time yet, however, I will continue contact through the present channels: 512-250-6627. Fax 512-250-7479. spence@csdeng.dsg.ti.com 4503929@mcimail.com

V

50

45

4.0

35

DRIVER-?
(ACTIVE NEGATION)

3.0

2.5

BOULAY AND 187/267 WITH $V_T = 4.85V$

AERONICS

IDEAL-?

2.0

ORIGINAL 220/330

1.5

1.0

0.5

11.2 m w

DRIVER-?

-30   -20   -10   0   I   10   20   ma   30   40

443