3. The Implementation

A simple and reliable implementation of such a termination sensing circuit can test the available pull-up current to a standard SCSI signal driver during a bus reset phase and generate the appropriate decision.

During an active power-up reset the termination sensor will pull down one of the SCSI signal lines to less than 0.5 V (e.g. -RST) and measure the pull-up current available. If this current is less than 25 mA ±7% (23.25 mA to 26.75 mA) the terminator B shall be activated.

While the optimum implementation of this circuit can be achieved by integrating it with a controllable terminator, a discrete implementation concept is shown in figure 3, page 2.

The main caveat of the discrete implementation is the load capacitance added to the signal line. The use of -RST line for this purpose can minimize the significance of the problem. Also a confusing situation can occur if such a termination sensing circuit is used in more than one place on the same bus and the power-on reset occurs simultaneous for the two devices.

![Diagram of the implementation](image)

Rsense + Rs_{FET} = 30 \Omega ± 2%
Vth = 0.5V ± 5% V

4. Open Issues

Which SCSI signal line should be used?
The proposed line is -RST.

What value should we chose for the decision threshold?
The proposed value is 25 mA ±7%

Protocol issues?
Multiple termination sensors on the same bus, multiple successive bus reset signals...

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SCSI
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