Ultra320 SCSI
Summary and Recommendations

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A Common Solution

- We must have a common solution for Ultra320
  - A device implementing only precomp might work well when transmitting to a device implementing only equalization -- but ...
  - This would be a disaster when a device that implemented only equalization was transmitting to a device implementing only precomp.

- The solution must work for Ultra640, as well, so that we have an evolutionary transition
Recap of Issues with Tx Precomp

- Transmitter precomp is difficult to design
- Common mode effects will be significant and are not yet quantified
- Capacitance increases are not acceptable
- Increased power and resulting thermal issues are significant and not yet quantified
- Increased slew rate will cause serious problems
- Crosstalk will increase
- Boost is inefficient
- Transmitter precomp certainly won't be sufficient for Ultra640
Empirical data verifies that a receiver equalization scheme will make Ultra320 work:
- With all of today’s cable plant configurations
- By itself without transmitter precomp

Theoretical data lead us to believe that receiver equalization is required for Ultra640

Therefore, Quantum advocates the use of a receiver equalization scheme for Ultra320