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To: T10 Technical Committee
From: William Petty, LSI Logic Corp.
Subj: Actual Pre-Compensation Eye Diagrams

The following data is taken from actual silicon drivers and measured at the worst point on the following segment configurations. It shows the effect that various levels of pre-compensation have on the received waveforms.

**Equipment Setup:**

HP 81110A Pattern Generator  
   PRBP (Pseudo Random Bit Pattern) = $2^n - 1$  (n=7)  
   Subject bit = DB9  
   Aggressors = DB8 and DB10 driven with random phase relative to DB9

Tektronix 11801A Digital Sampling Scope (20GHz)  
   Probes = P6248 differential (1.7GHz)

**Configurations:**

1. Point to point cable = Hitachi 25m round (HCM 48783)  
2. 1m round Madison cable (28 AWG) to backplane (10 drive, slot 4)  
3. 12m flat Hitachi cable (E15369) to backplane (10 drive, slot 4)
Point-to-point, 25m round, no precomp
Point-to-point, 25m round, 12.5% precomp
Point-to-point, 25m round, 25% precomp
Point-to-point, 25m round, 33% precomp
10 Drive backplane, 12m flat, no precomp
10 Drive backplane, 12m flat, 12.5% precomp
10 Drive backplane, 12m flat, 25% precomp
10 Drive backplane, 12m flat, 33% precomp
10 Drive backplane, 1m round, no precomp
10 Drive backplane, 1m round, 12.5% precomp
10 Drive backplane, 1m round, 25% precomp
10 Drive backplane, 1m round, 33% precomp