Sample: 1.65Gbps DVI
50m 22AWG STP CABLE

EYE DIAGRAM AFTER MAX3815 RECEIVE EQ

- ADDITIVE DIFFERENTIAL JITTER
  - 0.3UIp-P DUE TO DIFF-TO-CM CONVERSION

FAIL

PASS

INTRAPAIR SKEW FROM DC TO 2GHz
- SKEW (ps)
- SKEW (mUI)

DIFF-TO-CM CONVERSION (dB) = DIFF-TO-CM (SCD21) - DIFF-TO-DIFF (SDD21)

- DIFF-TO-CM CONVERSION
  - 1.25MHz = 0.05 x min bit rate
  - 62.5MHz = 0.05 x max bit rate
  - 165MHz = 0.1 x max bit rate
  - 330MHz = 0.2 x max bit rate
  - 660MHz = 0.4 x max bit rate
  - 990MHz = 0.6 x max bit rate
  - 1320MHz = 0.8 x max bit rate

ADDITIVE DIFFERENTIAL JITTER
- < 0.1UIp-P DUE TO DIFF-TO-CM CONVERSION

JITTER = 70ps
- 2^{10} - 1 PRBS
- AT 1.65Gbps

100ps/div

12.5MHz = 0.05 x min bit rate
82.5MHz = 0.05 x max bit rate
165MHz = 0.1 x max bit rate
330MHz = 0.2 x max bit rate
660MHz = 0.4 x max bit rate
990MHz = 0.6 x max bit rate
1320MHz = 0.8 x max bit rate

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100ps/div