

ECR #: 5

Title: T_{SET}

Release Date: Nov. 15, 1996

Impact: Clarification

Spec Version: A.G.P. 1.0

Summary:

Relaxation of the settling time spec for 1x and 2x modes, clarification that it is a recommendation rather than a requirement, and additional clarification that the real requirement is to include the impact of settling time in all flight time and skew evaluations.

Background:

This change is being requested because settling time has no *direct* detrimental impact on AGP interconnect performance; the impact of settling time is an *indirect* effect, because poor settling time can cause a variability in flight time and flight time skew. The simulation analyses which were performed while developing the spec included the effect of settling time by calculating flight time under a wide variety of settling time conditions. This was shown to be a better analysis approach, which doesn't risk *double-counting* or over-specifying the impact of settling time.

Change Current Specification:

Make the following changes to Table 4-6 (Signal Integrity Requirements):

- 1) Change the definition of Tset to read
 "Output Settling Time to $\pm 20\%$ of Rail" (from $\pm 10\%$)

- 2) Add note #4 to Table 4-6, stating

"Settling time is a recommendation, not a requirement. All delay simulations and measurements (flight times, flight time skews) should be performed such that they include the impact settling time may have on interconnect delay, as described in the AGP design guide."