



[EXTERNAL TEST LOAD/DATA] CONCEPTS

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Status:

- › Correlation discussion put on hold for now
- › A BIRD draft to improve the [Test Data] and [Test Load] structures of the IBIS spec was introduced by Anders Ekholm and is currently discussed
- › An [External Test Load/ Test Data] BIRD has been drafted by Anders Ekholm (Ericsson) and Mike LaBonte (Cisco systems)
- › This BIRD draft is the current topic of weekly IQ meetings

[EXTERNAL TEST LOAD/DATA] CONCEPTS

[Test Load] limitations

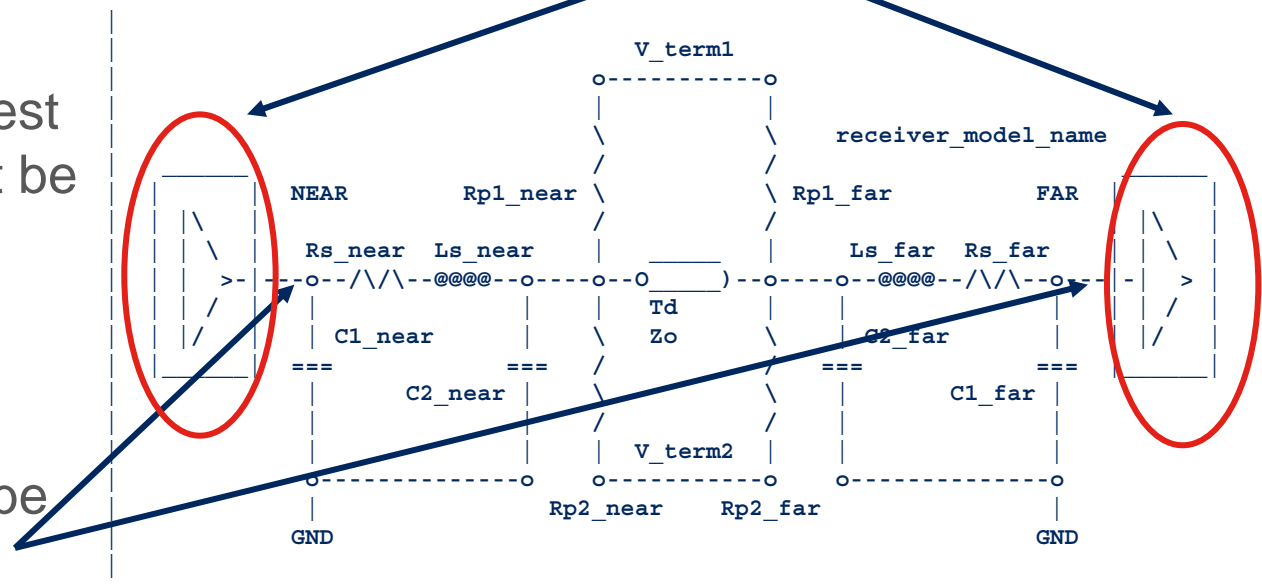
- › Size of [Test Data] (internal to IBIS file)
- › [Test Data] limited to single edge stimuli (no pulse train)
- › [Test Load] limited to a fixed topology (inflexible)
- › Limited differential load support

Buffer models

Without pin parasitics

› Bench measured [Test Data] usually can not be measured at pad

[Test Load] has probe points only at pads



[EXTERNAL TEST LOAD/DATA] CONCEPTS

Improvements over [Test Load] / [Test Data]

- › Full pulse train stimulus
- › More general/flexible test load topology
- › Larger test data sets possible

IBIS File: Buffer

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[External Test Load]

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[External Test Data]

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[External Test Stimulus]

Test_load.iss

(Test load in IBIS Interconnect
Spice Subcircuit format)

Test_data.csv

(Format needs to be defined.)

Test_stimuli.csv

(Format needs to be defined.

Also may define internal [Test Stimulus])

[EXTERNAL TEST LOAD/DATA] CONCEPTS

› [External Test Data]

- Kept in a separate file, size not as limiting
- Support more than two probe points



Test_data.csv

(Format needs to be defined)

› [External Test Load]

- Support more than two probe points
- Any load supported by IBIS-ISS can be used
- Probe points defined as .subckt terminals
- Easily re-used for many models



Test_load.iss

(Test load in IBIS-ISS SPICE format.)

› [External Test Stimulus]

- Any pulse train possible
- Idealized transition times used (no rise/fall time)



ERICSSON