**Verification of PI49S1510A IBIS model**

1. **Introduction: to verify the correlation between the ibis model and hspice model, we need to do some simulations:**
2. **Add 100 Ohm resistor between the differential output(LVDS):**

PI49S1510A

**VOUT**

**SCL\_C**

**SDA\_C**

**Input Signals**

**SCL\_C**

**SDA\_C**

**VIN**

**SCL\_C**

**SDA\_C**

IOA+

**SCL\_C**

**SDA\_C**

IN

**SCL\_C**

**SDA\_C**

R=100Ohm

**SCL\_C**

**SDA\_C**

IOA-

**SCL\_C**

**SDA\_C**

1. Simulation **without** package data;
2. Simulation **with** package data.
3. **Add 150 Ohm pull-down resistor and 100 Ohm resistor between the differential output(LVPECL):**

PI49S1510A

**VOUT**

**SCL\_C**

**SDA\_C**

**Input Signals**

**SCL\_C**

**SDA\_C**

**VIN**

**SCL\_C**

**SDA\_C**

IOB+

**SCL\_C**

**SDA\_C**

IN

**SCL\_C**

**SDA\_C**

R=150Ohm

**SCL\_C**

**SDA\_C**

R=100ohm

**SCL\_C**

**SDA\_C**

R=150Ohm

**SCL\_C**

**SDA\_C**

Gnd

**SCL\_C**

**SDA\_C**

Gnd

**SCL\_C**

**SDA\_C**

IOB-

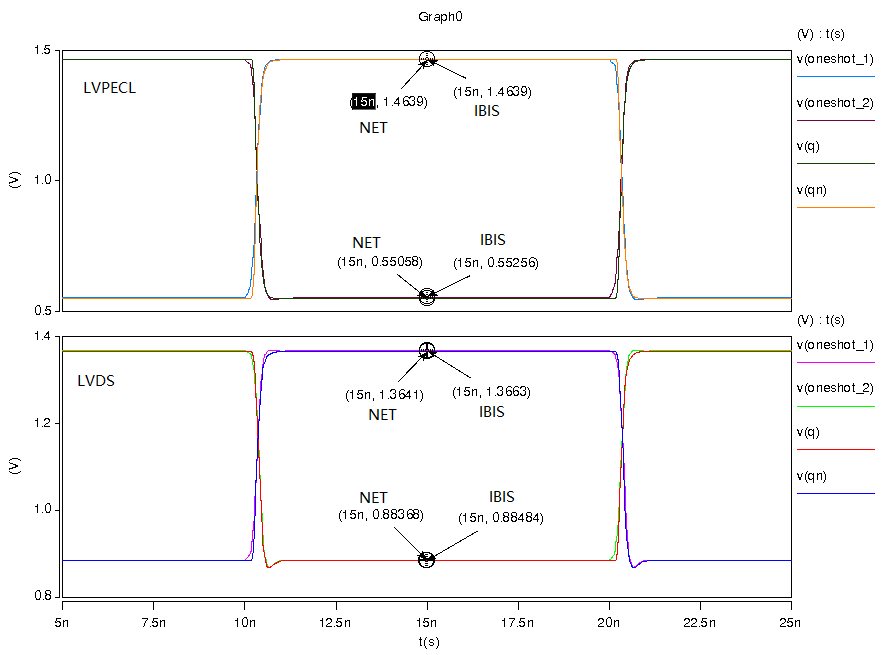
**SCL\_C**

**SDA\_C**

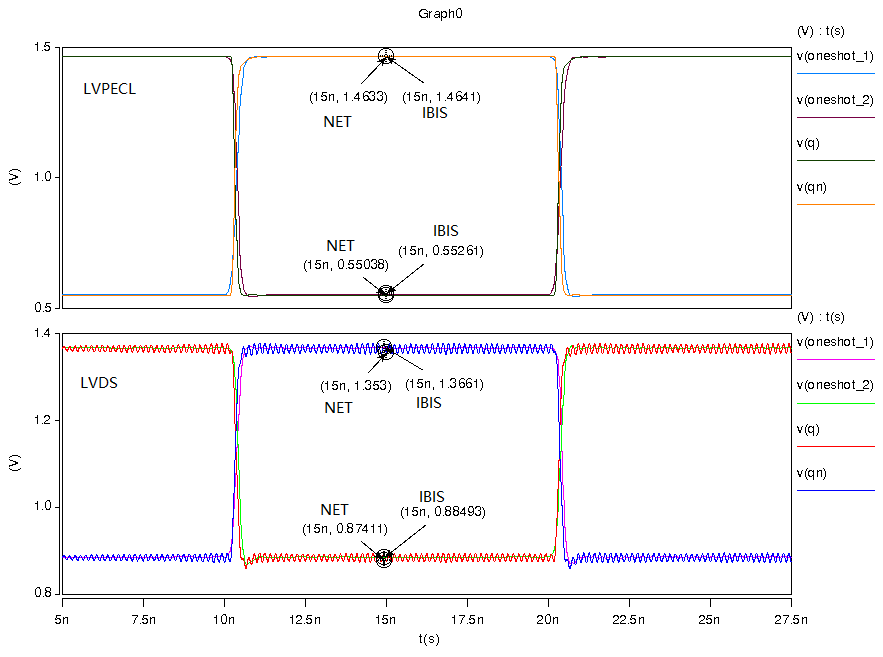
1. Simulation **without** package data;
2. Simulation **with** package data.
3. **Conclusion:**

For the verification, the simulation results of IBIS model can match very well with the HSPICE model at different simulating conditions.

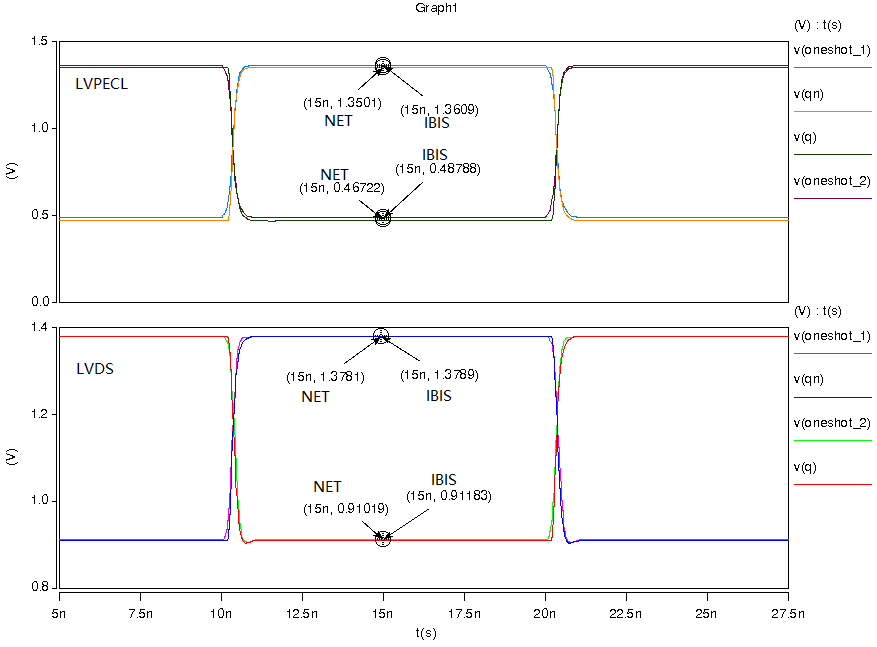
1. **Simulation Result : (the former is 2.5V while the later is 3.3V)**
2. **For the power supply is 2.5V.**
3. **Typ:**
4. Simulation **without** package data;



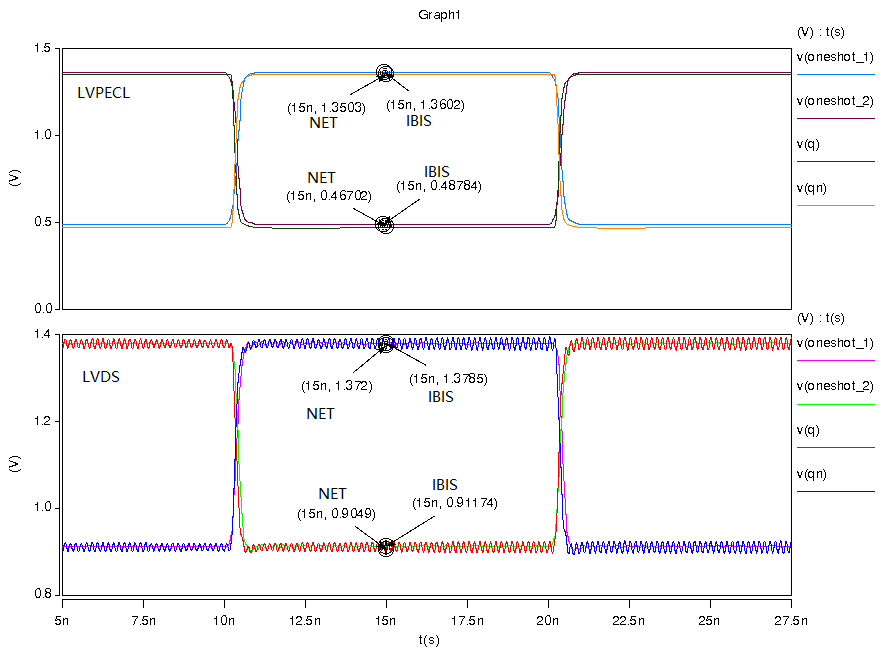
1. Simulation **with** package data.



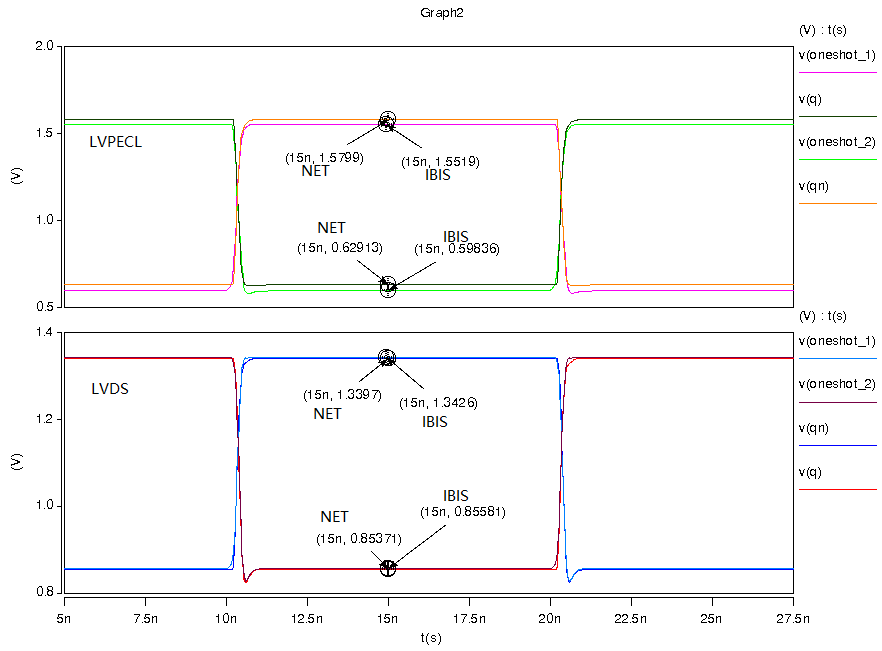
1. **Min:**
2. Simulation **without** package data;



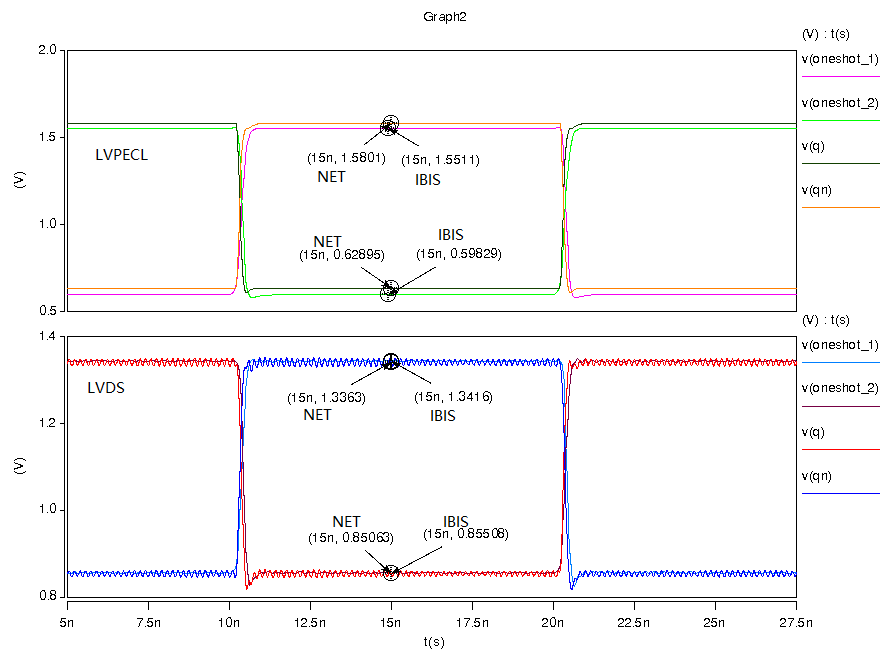
1. Simulation **with** package data.



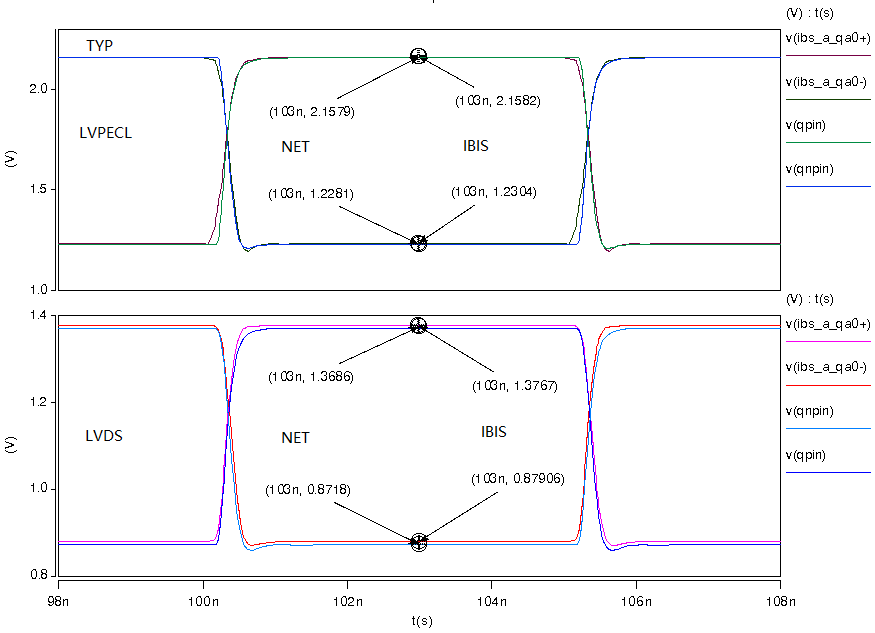
1. **Max:**
2. Simulation **without** package data;



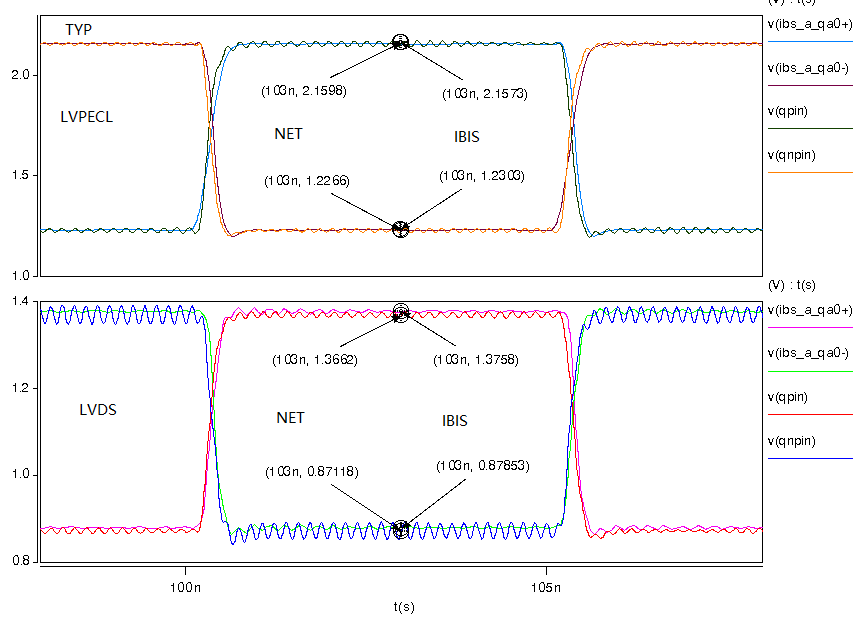
1. Simulation **with** package data.



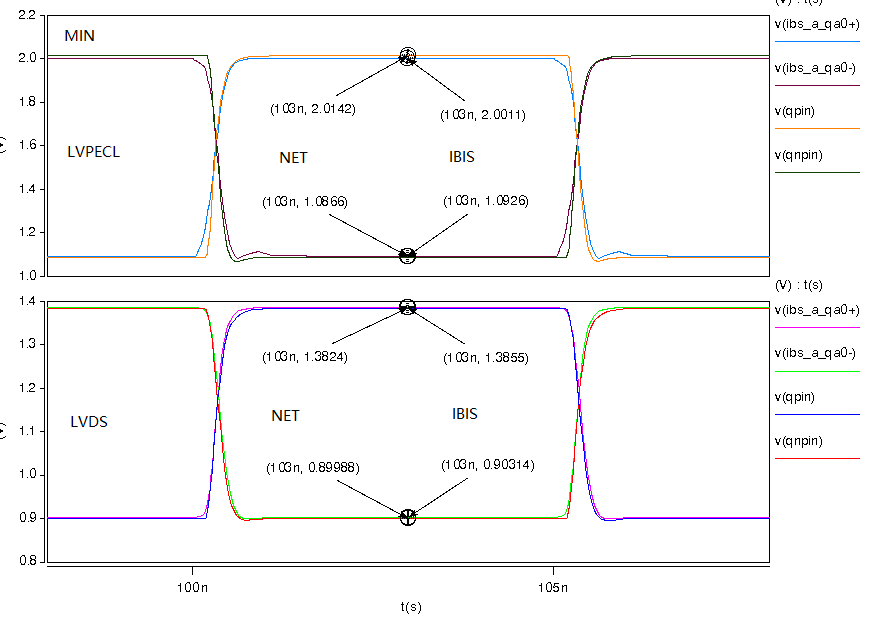
1. **For the power supply is 3.3V.**
2. **TYP:**
   1. Without the package:



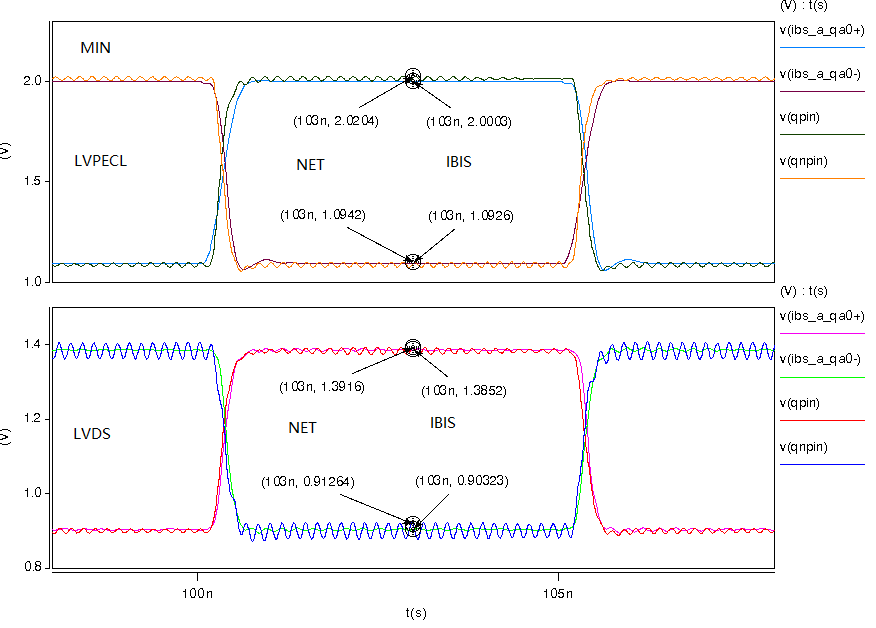
* 1. With the package:



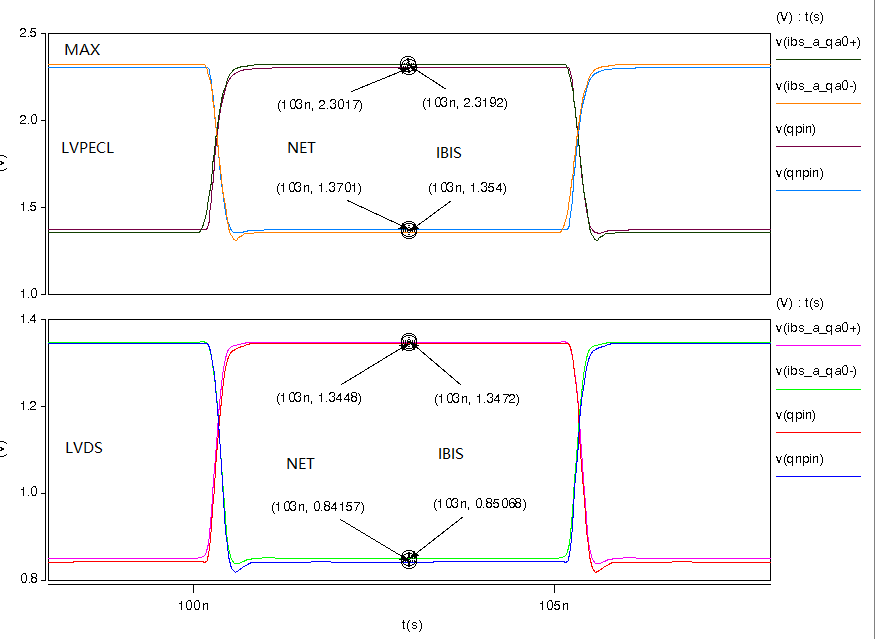
1. **MIN:**
   1. Without the package:



* 1. With the package:



1. **MAX:**
   1. Without the package:



* 1. With the package:

