**PI3L301D IBIS Model Check**

**Two IBIS Models: PI3L301D\_A\_RevA.ibs and PI3L301D\_K\_RevA.ibs.**

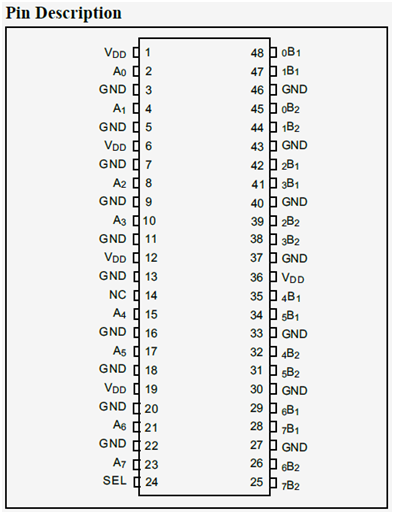
**1. Model Type**

**[Pin]** signal\_name model\_name

1 VDD POWER

2 A0 TERM1

3 GND GND

4 A1 TERM1

5 GND GND

6 VDD POWER

7 GND GND

8 A2 TERM1

9 GND GND

10 A3 TERM1

11 GND GND

12 VDD POWER

13 GND GND

14 NC NC

15 A4 TERM1

16 GND GND

17 A5 TERM1

18 GND GND

19 VDD POWER

20 GND GND

21 A6 TERM1

22 GND GND

23 A7 TERM1

24 SEL INPUT

25 7B2 TERM2

26 6B2 TERM2

27 GND GND

28 7B1 TERM2

29 6B1 TERM2

30 GND GND

31 5B2 TERM2

32 4B2 TERM2

33 GND GND

34 5B1 TERM2

35 4B1 TERM2

36 VDD POWER

37 GND GND

38 3B2 TERM2

39 2B2 TERM2

40 GND GND

41 3B1 TERM2

42 2B1 TERM2

43 GND GND

44 1B2 TERM2

45 0B2 TERM2

46 GND GND

47 1B1 TERM2

48 0B1 TERM2

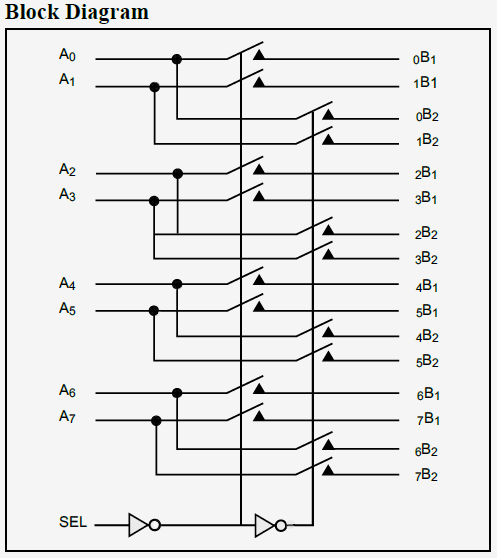
**[Series Pin Mapping]**

48 2 SWITCH1 1

45 2 SWITCH1 1

47 4 SWITCH1 1

44 4 SWITCH1 1

42 8 SWITCH1 1

39 8 SWITCH1 1

41 10 SWITCH1 1

38 10 SWITCH1 1

35 15 SWITCH1 1

32 15 SWITCH1 1

34 17 SWITCH1 1

31 17 SWITCH1 1

29 21 SWITCH1 1

26 21 SWITCH1 1

28 23 SWITCH1 1

25 23 SWITCH1 1

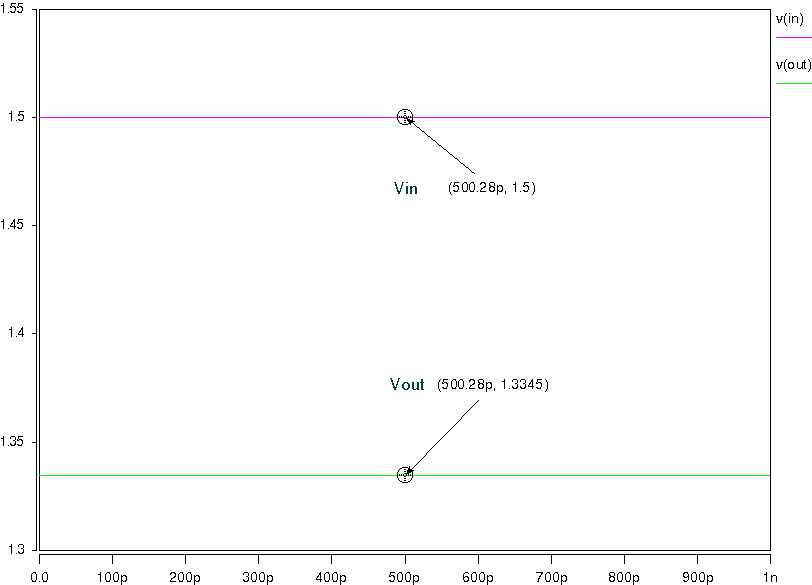
**Conclusion**

1. The PIN and PIN mapping information described in IBIS model is **correct** according to the datasheet.

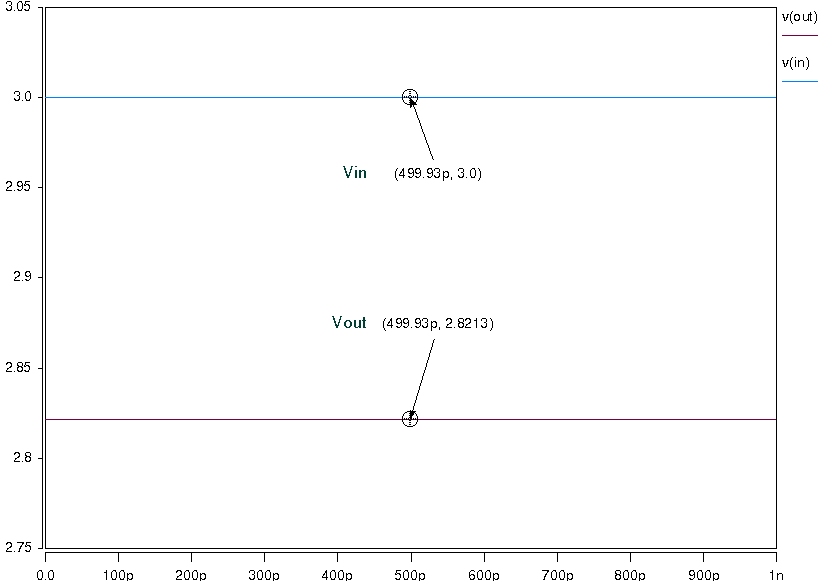
**2. Switch ON Resistance based on IBIS Model:**

Simulation by HSPICE tool with following two conditions: **Vcc=3.3v**(Defined in IBIS model)

1) Iout=40mA, Vin=1.5V: We get **Vout=1.3345V**, so **Ron=4.1375Ω**

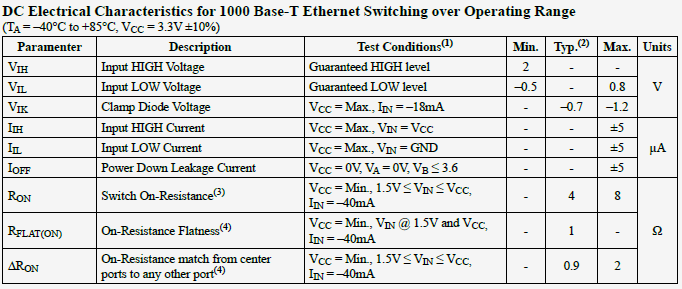


2) Iout=40mA, Vin=3V: We get **Vout=2.8213V**, so **Ron=4.4675Ω**

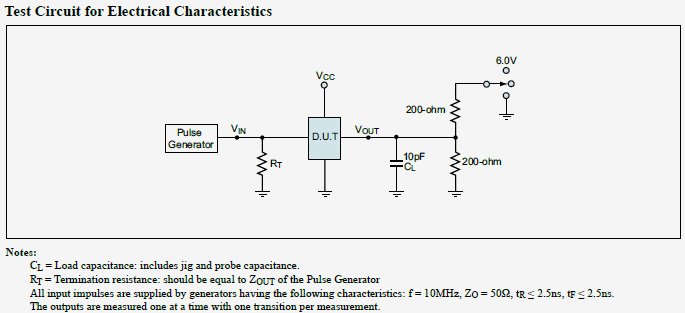


**Conclusion:**

The values of Switch ON Resistance based on Hspice simulation with IBIS model are **correct** according to the datasheet.



**3. Analog Switch simulation result with following circuit diagram:**

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Input signal frequency is 250MHz, with **10pF** pull-down capacitance, **200Ω** pull-down and **200Ω** pull-up resistor to the Output.

