## Artwork Groundrules - 05.07.87

## XXIII. READING THE COMP FILE

A) Finding the path time from clocked output term .

Example: Boolean term <<< TAA . Boolean reads as shown:

WSLG TAA = OAD .

Comp file reads:

<< TAA 764

nux 006 nui 000 \*\*\* .

qux 006 qui .

tux 006 tui .

WMG 158 wui 006 wux .

- 1) Total path time from transmitter to last load is 764 grids or 2.12 nanoseconds . 764 / 360 = 2.12
- 2) The cutput package ( L chip ) has a bias of 360 grids .

  The WMG pin has a bias of 36 grids . 360 + 36 = 396 .

  Foil between WMG and wui is 158 grids . 396 + 158 = 554 . 1.54 ns wui pin bias is 36 grids . 554 + 36 = 590 .

Foil between wui and jumper wux is 6 grids . 590 + 6 = 596 .

Jumper bias from wux to tux is 10 grids .596 + 10 = 606 .

Foil between tux and tui is a stub of 6 grids . 6 \* 2 = 12 12 + 606 = 618 .

tui pin bias is 36 grids . 618 + 36 = 654

Jumper bias from tux to qux is 10 grids .654 + 10 = 664 .

Foil between qux and qui is a stub of 6 grids . 6 \* 2 = 12 . 12 + 664 = 676 .

qui pin bias is  $36 \text{ grids} \cdot 676 + 36 = 712$ .

Jumper bias from qux to nux is 10 grids  $\cdot$  712 + 10 = 722  $\cdot$ 

Foil between nux and nui is 6 grids  $\cdot$  722 + 6 = 728  $\cdot$ 

mui pin bias is 36 grids . 728 + 36 = 764 . 764 / 360 = 2.12

nui pin is terminated .