Pin Out & Estimated Size

ChipiChapa Team

Pin Out For Integration

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Pin Out

The number of input pin that we use in the integration is the maximum number of pin we use in a single cell. Because we designed aoi211, oai211, aoi221, and oai221, we use 5 general input pin (A0, A1, B0, B1, C).

We use another 2 bidirectional pin for vdd (3.3V) and vss (ground) node.

We also use one general output pin (Y). The idea is that it is more likely if the integration of the standard cells uses multiplexer to reduce the number of pin we used, so our team proposes one general input pin. Alternatively, if it doesnt use multiplexer, we used all 4 output pin (one for each cell).

So in total 8 pin out (if the integration uses multiplexer) or 11 pin out if the latter.

Size Estimate for each cell

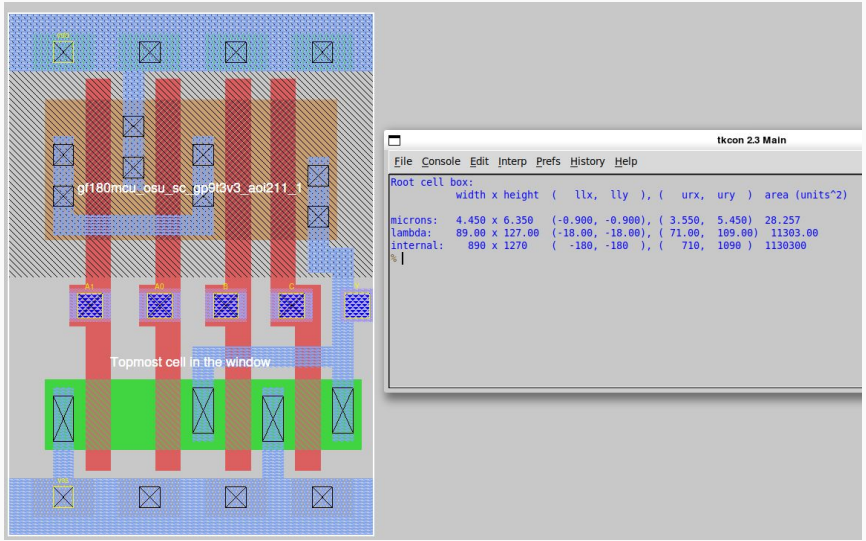
ChipiChapa Team

AOI211

Estimated size (according to current layout): 4.45 um width x 6.35 um height

Estimated area (according to current layout): 28.2575 um²

NOTE: layout shown in the right is magic layout, but our team have merged all the .mag layout and convert it into .gds.



AOI221

Estimated size (according to current layout): 5.60 um width x 6.35 um height

Estimated area (according to current layout): 35.56 um²

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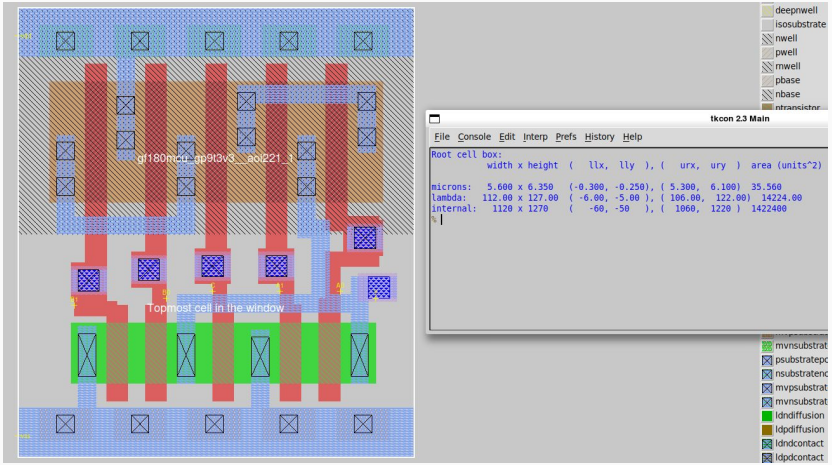
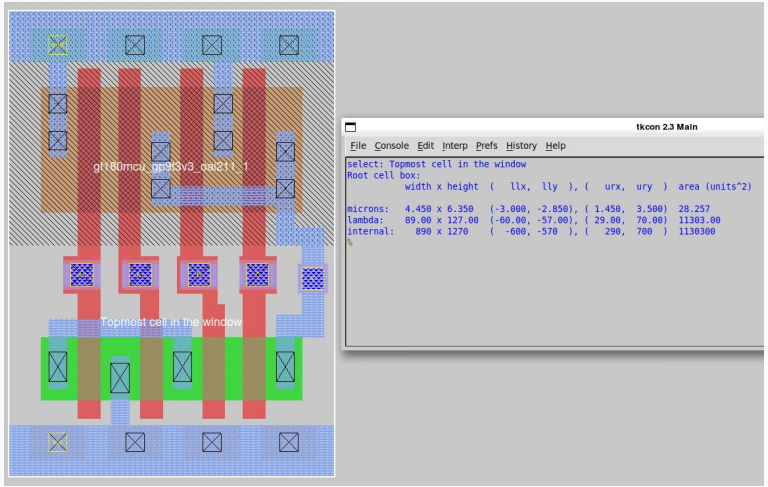


OAI211

Estimated size (according to current layout): 4.45 um width x 6.35 um height

Estimated area (according to current layout): 28.2575 um²

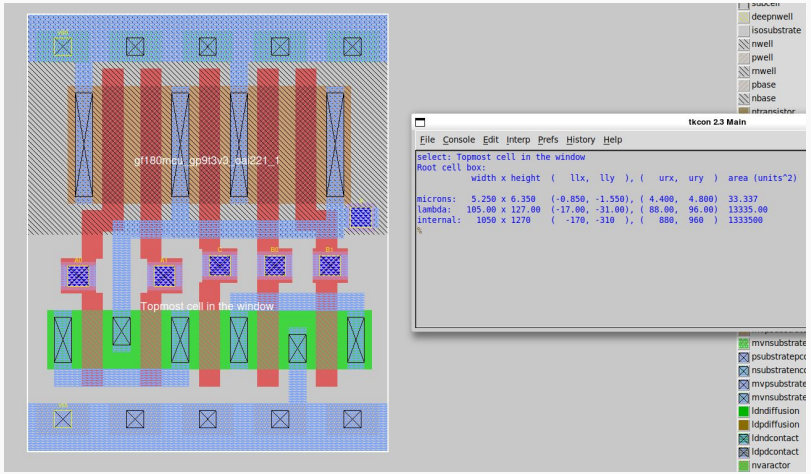
NOTE: layout shown in the right is magic layout, but our team have merged all the .mag layout and convert it into .gds.



OAI221

Estimated size (according to current layout): 5.25 um width x 6.35 um height

Estimated area (according to current layout): 33.3375 um²



NOTE: layout shown in the right is magic layout, but our team have merged all the .mag layout and convert it into .gds.

Thanks!