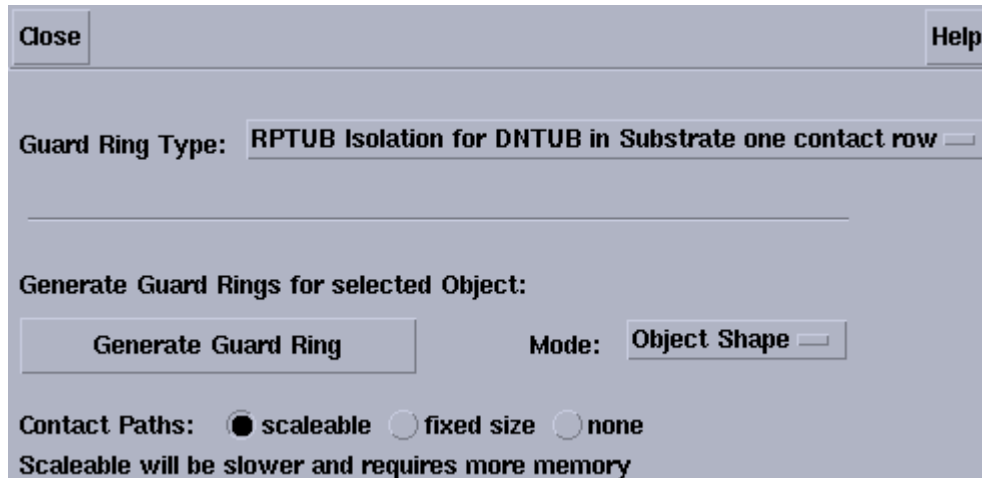


H35 - Guard Ring Generator

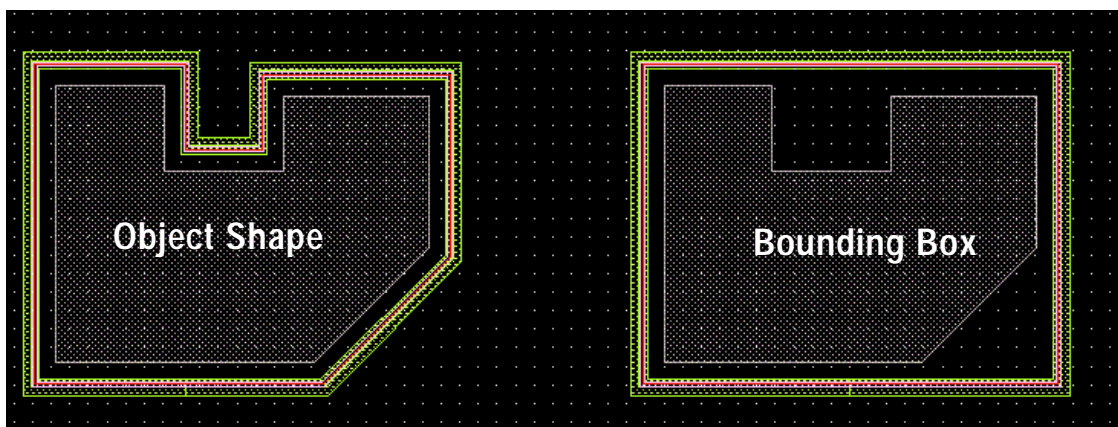
Select the reference Layer (eg DNTUB for RPTUB Isolation Rings) and choose HIT-Kit Utilities -> Guard Ring Generator.



The generated guard rings are by default ROD objects and therefore they are **scaleable**. ROD objects can generate a lot of data (especially for contacts) which can make the layout tool extremely slow and they also blows up the database. Large guard rings should be generated with the "fixed size" option.

There are two modes to draw a Guard ring:

- Object shape
- Bounding Box (can have DRC violations)

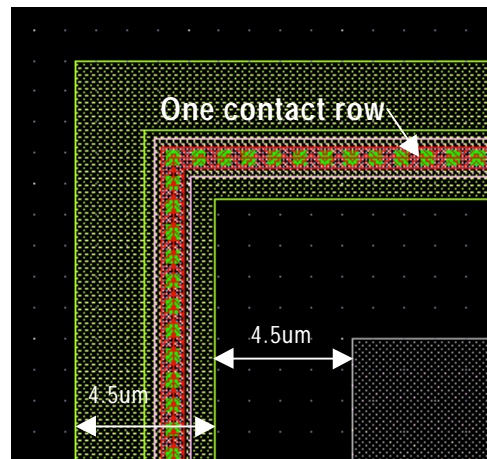
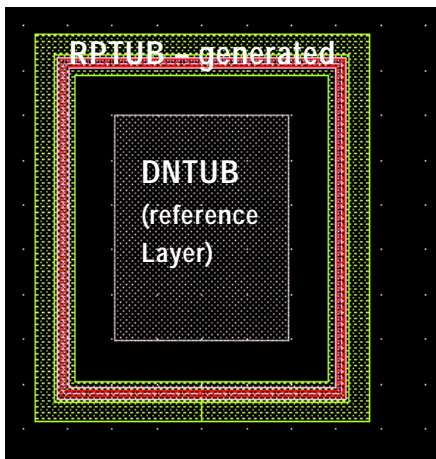


1 Guard Ring Types

- RPTUB Isolation for DNTUB in Substrate one contact row
- RPTUB Isolation for DNTUB in Substrate
- Wide RPTUB Isolation for DNTUB in Substrate
- DNTUB Isolation for DNTUB in Substrate
- DNTUB Isolation for DNTUB with wide metal
- NDIFF Connection for DNTUB
- NDIFF Isolation for RPTUB in DNTUB
- PDIFF Connection for RPTUB in DNTUB

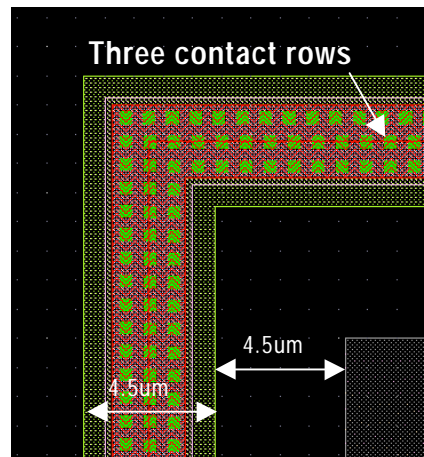
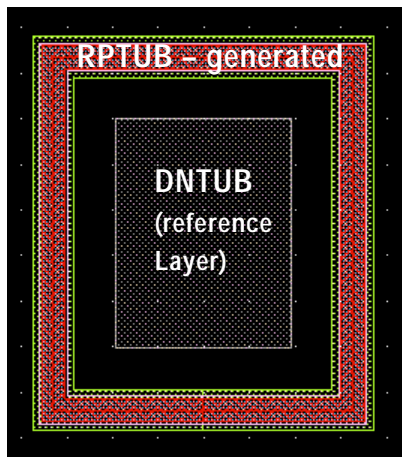
1.1 RPTUB Isolation for DNTUB in Substrate one contact row

The DNTUB is the reference layer for the RPTUB isolation ring. The DNTUB has to be selected before generating the guard ring.



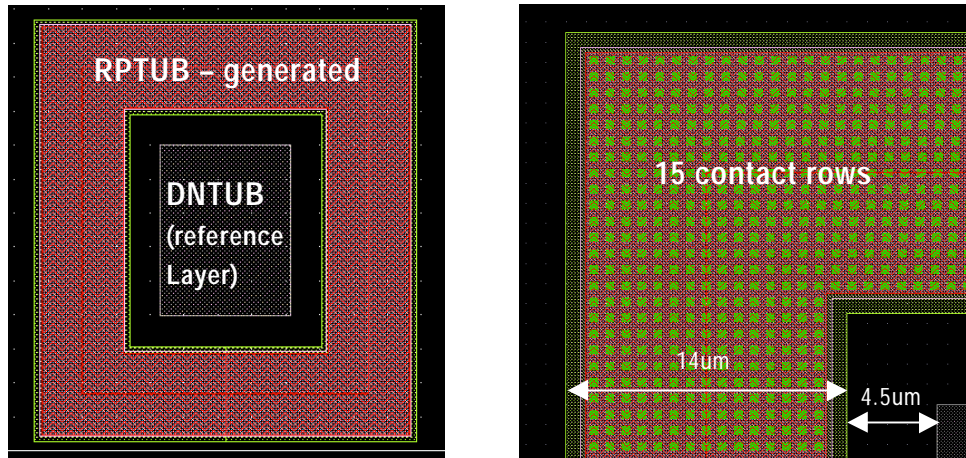
1.2 RPTUB Isolation for DNTUB in Substrate

Generates a guard ring corresponding to Rule W1RPDNDN



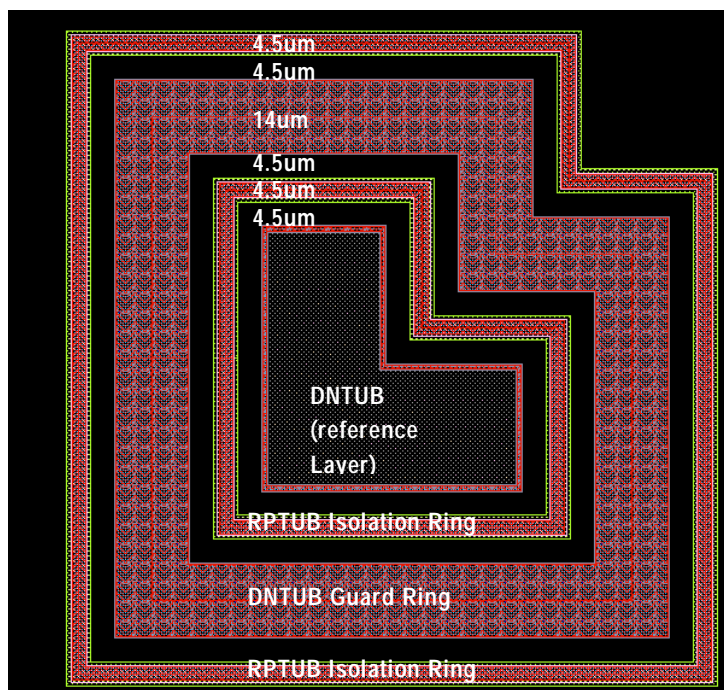
1.3 Wide RPTUB Isolation for DNTUB in Substrate

A guard ring corresponding to Rule W2RPDNDN will be generated.



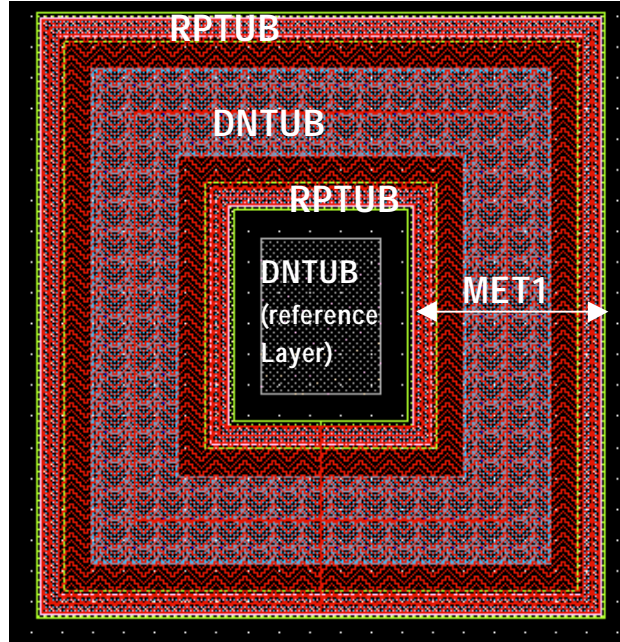
1.4 DNTUB Isolation for DNTUB in Substrate with Contacts

Generates a DNTUB guard ring around a DNTUB with two RPTUB isolation rings.



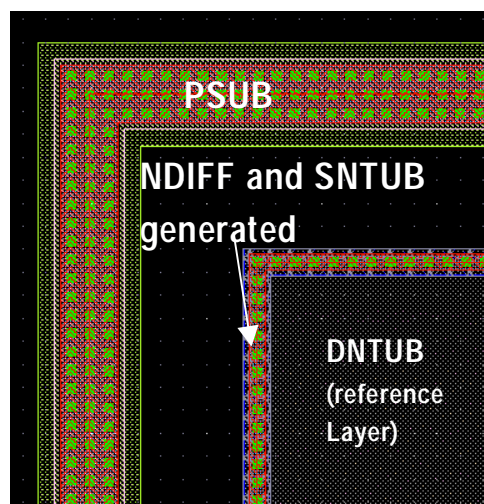
1.5 DNTUB Isolation for DNTUB connected to Substrate

DNTUB guard ring around a DNTUB with RPTUB isolation rings. RPTUBs and DNTUB ring as connected with MET1.



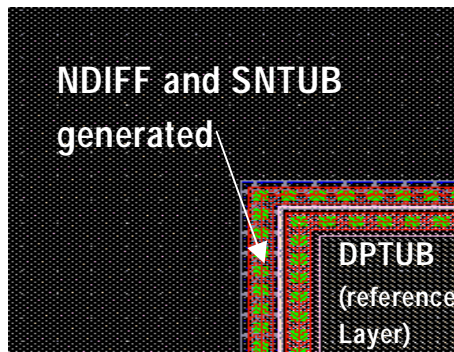
1.6 NDIFF Connection for DNTUB

Adds also NDIFF and SNTUB connection to the referenced layer.



1.7 NDIFF Isolation for RPTUB in DNTUB

Generates a NDIFF (+SNTUB) guard ring in the DNTUB around the DPTUB (or RPTUB)



1.8 PDIFF Connection for RPTUB in DNTUB

Generates the PDIFF connection in the RPTUB.

