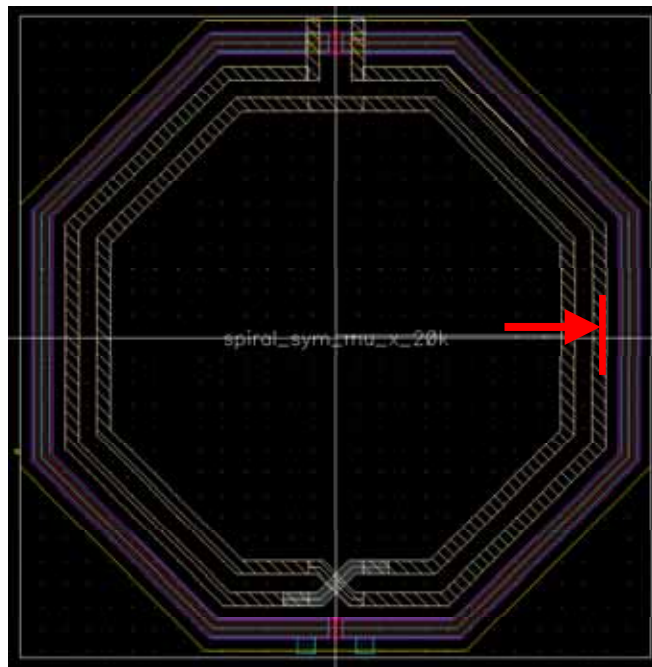


# CR018 GPII Inductor Rule Violation SOTE



**GRDIST=Distance between coil and INDDMY**

• Customer may suffer the rule violation (UTM20K.E.3 & UTM40K.E.3) as using CR018 GPII Inductor PDK, due to TSMC had offered scalable guard-ring distance (10um~50um) for inductor of CR018 GPII. (T-018-LO-DR-001).

• Current rules definition:

|            |  |   |   |    |
|------------|--|---|---|----|
| UTM20K.E.3 | Minimum extension of dummy"layer "INDDMY" region beyond one UTM region which used as one inductor device.  | G | ≧ | 50 |
| UTM40K.E.3 | Minimum extension of dummy"layer "INDDMY" region beyond one UTM region which used as one inductor device.<br><br>Recommendations:  | G | ≧ | 50 |
|            | 1. Keep this enclosure as small and as close to 50 um as possible.<br>2. Keep INDDMY regions for separate inductors located as uniformly as possible over the whole chip area. |   |   |    |

# CR018 GPII IND Rule Violation SOTE

## ❑ Future Update Plan:

- TSMC will relax the rule and update DRM in 2010/Q2. "T-018-LO-DR-001"
- Please customer waive the rule violation caused by guard-ring distance as using CR018 GPII PDK, until DRM and new DRC deck update.
- The new rules update will be defined as following table: (It will be treated as recommendation rules).

|                         |  |                |                     |                 |
|-------------------------|--|----------------|---------------------|-----------------|
| UTM20K.E.3 <sup>u</sup> | Minimum extension of dummy"layer "INDDMY" region beyond one UTM region which used as one inductor device.<br>Recommendations:<br>Keep INDDMY regions for separate inductors located as uniformly as possible over the whole chip area. | G <sup>u</sup> | $\geq$ <sup>u</sup> | 10 <sup>u</sup> |
| UTM40K.E.3 <sup>u</sup> | Minimum extension of dummy"layer "INDDMY" region beyond one UTM region which used as one inductor device.<br>Recommendations:<br>Keep INDDMY regions for separate inductors located as uniformly as possible over the whole chip area. | G <sup>u</sup> | $\geq$ <sup>u</sup> | 10 <sup>u</sup> |

- ❑ About the detail model offering scope, please refer to the most updated SPICE document "T-018-CM-SP-018".