



PXD9 Kapton Footprint Bondpad Optimizations



Christian Kreidl

christian.kreidl@ziti.uni-heidelberg.de

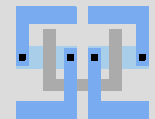
Kapton & TML Meeting

EVO

22.09.2014

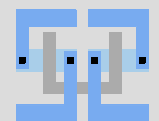
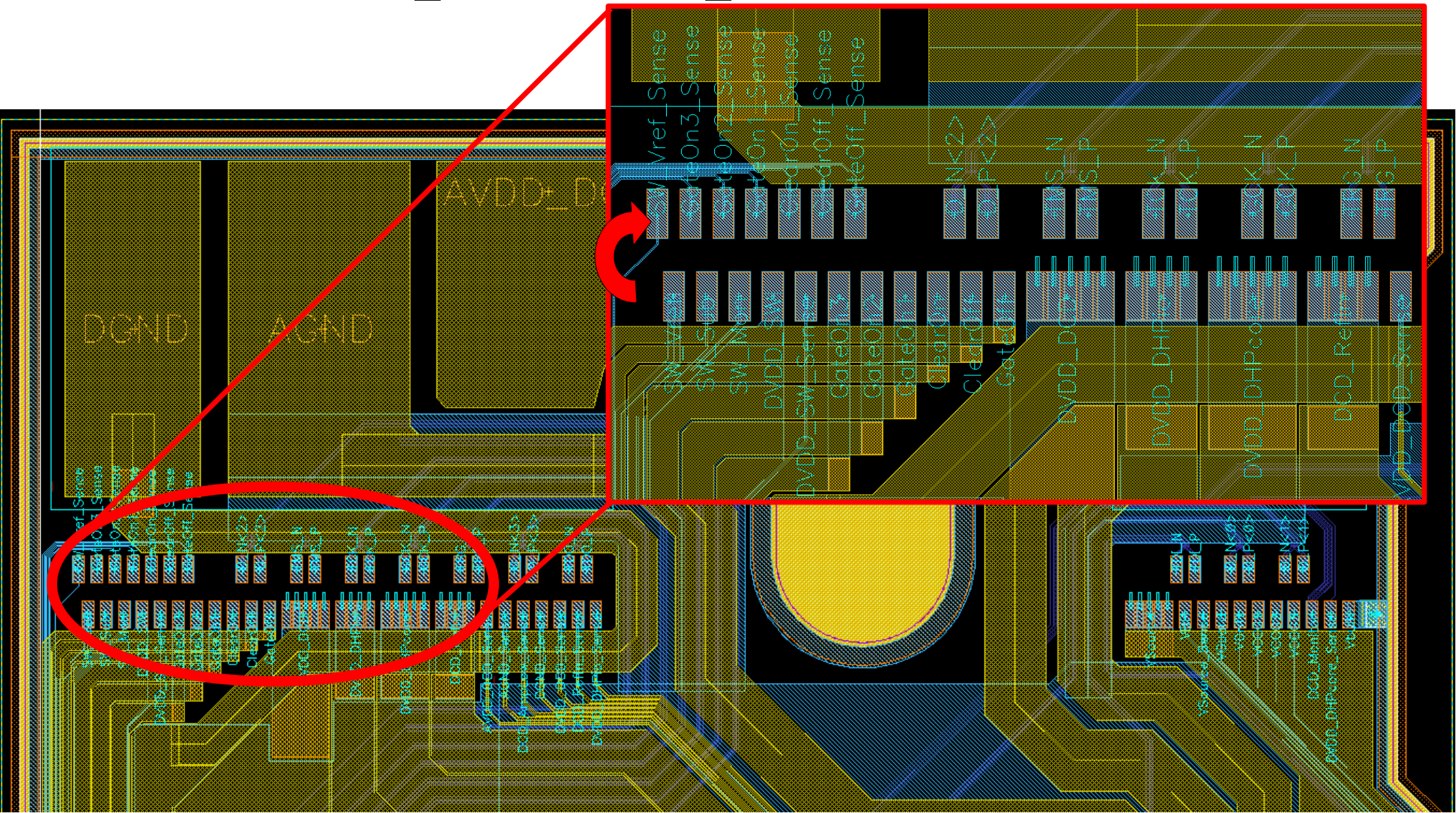
Changes to Footprint

- Removed obsolete differential signals: DHP_FCK, DHP_RST
- use freed space to reorder sense lines
 - 4 senselines from top bond layer to middle bond layer
- Increase power bondpads to not exceed 200mA/bond
 - DHPCore ca. 700mA -> 5bonds=1000mA
 - DHPIO ca. 220mA -> 4bonds=800mA
 - DCD_DVDD ca. 720mA -> 5bonds=1000mA
 - RefIn ca. 200mA -> 4bonds=800mA
- New sizes with a bondpitch of 100µm
 - DHPCore 530µm
 - DHPIO 430µm
 - DCD_DVDD 530µm
 - RefIn 430µm



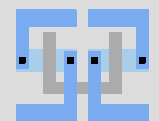
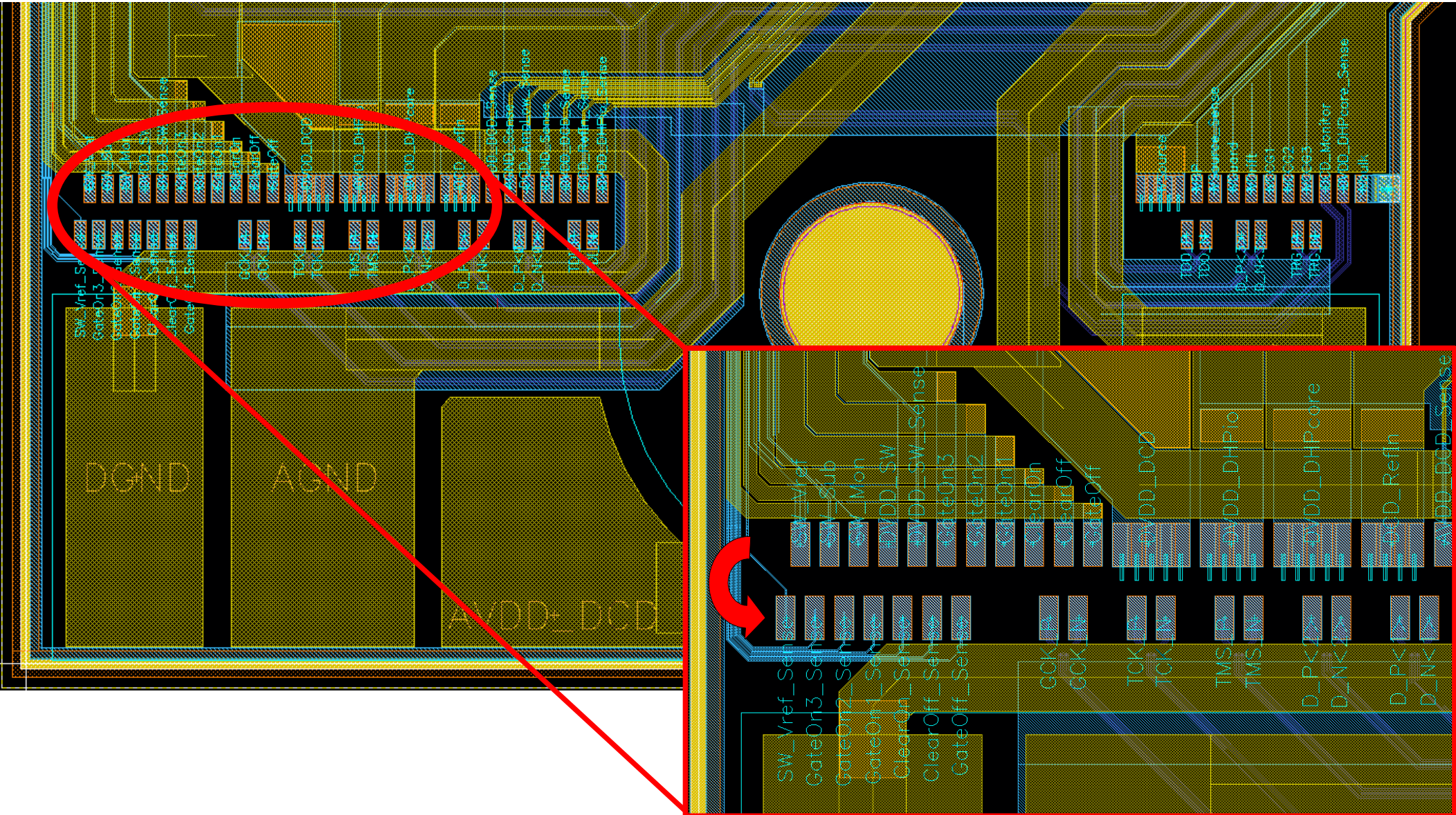
Kapton_Footprint_A

- used in inner_fwd and outer_bwd



Kapton_Footprint_B

- used in outer_fwd and inner_bwd



- increased width of differential lines to 30 μ m
- increased spacing of termination resistors to 200 μ m
- increased width of power routing on copper layer

- designs are LVS and DRC clean

- ToDo:
 - incorporate change in inner bwd and outer fwd modules

Thank you!