

Assessment of ETSOI MOSFET Modeling with BSIMSOI

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Outline

- Background and motivation
- Brief overview of BSIMSOI
- Model scalability checks
- ETSOI modeling example with BSIMSOI
- Conclusions



Conclusions

- Can BSIMSOI be used for ETSOI designs?
 - YES!
 - Width/length/ V_{DD} /temperature scalability for DC/AC adequately covered
 - Benchmarking circuits fully functioning
- Areas of improvement for BSIMSOI or ETSOI dedicated models
 - Treatment of undoped channel
 - Predictability over T_{si} , T_{box} , N_{sub} , T_{ox}

