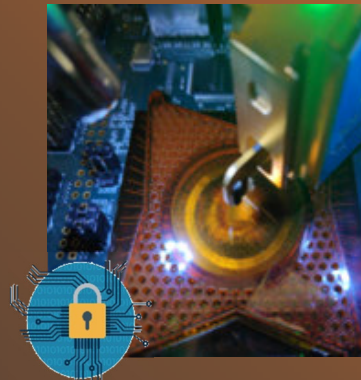




J.A.M.E.S

Hardware cyber security by AME

Story



Requirements
and potential measures

Hardware Cyber security by AME

Following AME measures against hardware cyber-attacks for chip-designs and increasing the robustness of electronics have been identified.

1. HW Cyber security measures

- Board Level
 - Use of AME full 3D-wiring features for realization
 - Shielding of Clock-Signal lines (decoupling < -80 dB)
 - Shielding of external oscillators (decoupling < -80 dB)

- Chip housing level
 - Use of AME realization for Chiphousing with “3D-wiring”
 - complicate acessibility of semiconductor chips
 - Implementation Chiphousing with electronic sensors for mechanical attack
 - Individualization of chip-to-housing interface