Abstract

This paper presents the design, radio frequency (RF) performance and high frequency stability of Gate-All-Around Tunnel Field Effect Transistor (GAA TFET). The small signal parameters that can be extracted using a non-quasi static small signal model are calculated using extracted parameters from a technology computer-aided design (TCAD) simulation. RF parameters like cut-off frequency (ft), maximum oscillation frequency (fmax) and stability factor (K) are extracted to evaluate the high frequency performance of GAA TFET. The result shows that the GAA TFET has cut-off frequency of 22GHz and unconditionally stable from 1GHz onwards.
References


Index Terms

Computer Science

Electronics

Keywords
