

Circuit Design Techniques in 22nm FD-SOI for 5G 28GHz Applications

Abstract: This course will focus on taking advantages of FD-SOI's high frequency performance at relatively low current density to design high performance RF/mmWave circuits. Examples circuits include a 28GHz LNA, a 28GHz PA and an RF switch for 5G applications. The FD-SOI advantages such as low capacitance, high breakdown voltage and high output impedance will be exploited in these design examples. This course will also discuss how to extend these techniques to applications to higher frequencies and/or higher current densities that are subject to extreme temperatures and EM requirements.