

## Abstract

Shorttitle. This work establishes the transmission parameters for the medically important African *Anopheles gambiae*, which is a vector for malaria transmission. Parameters, such as Modulating signal, Modulating index, Wavelength and band width (BW) have been determined. Based on this parameters, a male mosquito antenna was designed and synthesized. An electronic device meant to disrupt communication between male and female African mosquitoes was designed and its efficacy tested and statistically tested