

WiMAX SYSTEM MODEL

WiMODEL, a mathematical model for WiMAX air interface, estimates various metrics including area coverage, data rates, received SNR, MIMO channel coefficients and power requirements for various configurations of 802.16e PHYs and RF antennas. The model supports QAM64, QAM16 and QPSK modulations and different Forward Error Correction (FEC) schemes. It also includes MIMO channel estimation and RF antenna modeling.

Features

- SNR modeling for different RF configurations and environment conditions
- Cell coverage and data rates analysis
- Support for QAM64, QAM16 and QPSK modulations
- Support for 802.16e FEC schemes
- Support for Turbo Coding
- Modeling for indoor and outdoor subscribers
- Support for multi-sector/single-sector configurations
- Estimation of UL-MAP/DL-MAP overhead for different sector configurations
- Estimation of MIMO/SISO channel capacity based on Rayleigh fading
- Antenna modeling for neighboring sector interference

