Abstract

The capacity of Multiple Input Multiple Output (MIMO) systems has received much attention in recent years. This paper presents the simulated capacity results that could be achieved when side by side, echelon, collinear arrays are used in the MIMO systems. Here we investigate the MIMO system capacity using Spatial Channel Model (SCM), proposed by standardization bodies (3GPP-3GPP2) for third generation system and also compared the simulation results with one ring model. In the one ring channel model, multi-polarized antennas are used in the simulations. The polarization change at every scatter is included using a dyad. The impact of number of antennas, inter-element spacing and mutual coupling for one ring channel model scenario were also examined.

Reference

Capacity of MIMO Antenna Configurations for Spatial Channel and One Ring Model Scenarios


Index Terms

Electronics

Communication Systems

Keywords

Channel capacity

one ring model

SCM model

Mutual coupling