Theory for Exposure Prediction in an Indoor Environment Due to UWB Systems

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Abstract:

A simple theory based on room electromagnetics theory is presented. The theory primarily models the Diffuse Multipath Components (DMC) power density with a simple circuit model, and afterwards include the Line-Of-sight component (LOS) in order to determine the whole-body absorption rate for Ultra-Wide-Band (UWB) systems. The model may be very useful for prediction tools in realistic environment.