The Simulation of Adjacent Channel and Co-Channel Interference to WLAN for Compatibility in the 5GHz Band of Korea by Radar

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ABSTRACT

The following is the adjacent channel and co-channel interference analysis for WLAN; it is presented with PHY (Physical Layer) performance results by software simulation. With this, we made a model of two systems in PHY and scenarios for the interference analysis. The method is achieved by software simulations using MATLAB. By the results, evaluate performance that is based in WLAN standard (IEEE 802.11a) through the parameters, PER (Packet Error Rate) EVM (Error Vector Magnitude, Constellation Error), against signal to Interference Ratio (SIR) and analyze the compatibility for two systems. The result is useful for being compared, considered and referred when WLAN (Wireless Local Area Network) freq. is allocated in Korea.

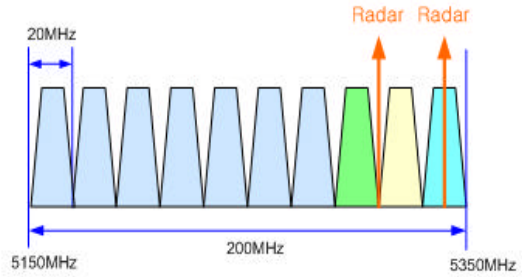

Figure 1: Frequency of Radar

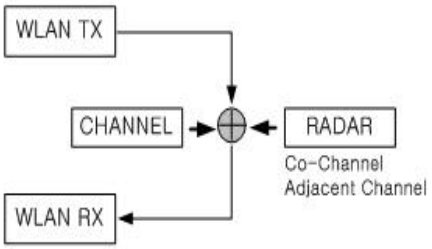

Figure 2: Interference Model

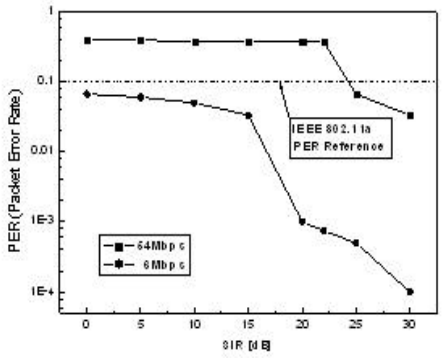

Figure 3: PER Performance

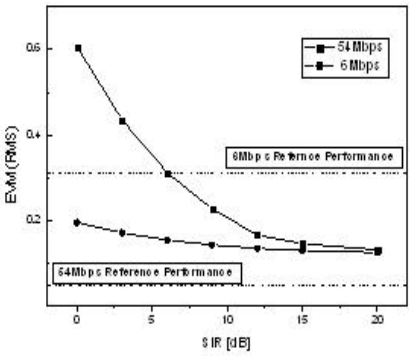

Figure 4: RMS Error of Constellation

* (1) E; Electro magnetic Noise and Interference, E3; Spectrum management and Utilization
(2) Interference Modelling, Analysis of Performance in Spectrum Management
(3) Developing Radio Resource

* This paper must be a poster presentation (Author want this paper to be poster presentation)