



Research Article



Evaluation of Predicted Throughput in TDD- LTE Systems

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ABSTRACT

This paper examines the downlink throughput evaluation of Time division duplex Long Term Evolution (TDD-LTE). The system efficiency is assumed to be equal to the Shannon boundary. Pilot tones etc. is taken from TDD-LTE. Furthermore the packet header is part of the calculated throughput as it is highly dependent on the specific network. A large number of connected terminals will give a higher header/payload ratio, and for this reason it is not calculated in this investigation. Calculations show that RLAN's deployed in this frequency band produces high interference cannot supply high capacity access to internet. Only the rural case is investigated, and the interference radius is limited to 150 kilometres (a BDA2GC maximal radius is in this paper assumed to be 90 kilometres). Results show the capacity for a 20 MHz LTE-TDD systems as function of signal to noise ratio (SNR).

Keywords: Throughput, TDD, LTE, RLAN, SNR and BDA2GC.

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