

ANALYZING THE DIFFERENCES BETWEEN BASEBAND
HOPPING AND SYNTHESIZER FREQUENCY HOPPING IN THE
GSM NETWORK

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In the name of ALLAH
The most Gracious, Compassionate, Merciful,
Praise be to Allah, Lord of the Universe,
And Peace and Prayers be upon
His Final Prophet and Messenger

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ABSTRACT

The mobile telephone market has been undergoing a dramatic increase with the demand in the quality requirements. The limiting resource in this highly competitive market is the available frequency spectrum. In the GSM networks, the frequency has been the basic tool for optimizing the frequency spectrum. Frequency hopping is a method that allows one to expand the available capacity of mobile networks or to improve the quality of service through interference averaging and frequency diversity. In this paper, I would like to show an analyzing of differences between Baseband Hopping and Synthesizer Frequency Hopping in the GSM networks. The differences will be includes the specifications, the requirement criteria for both types, the performance in term of the receive signal strength level, receive speech quality, the dropped call rate and other related for both types of frequency hopping.

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