Decoding of PBCH in LTE

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Abstract

Based on GSM/EDGE and UMTS/HSPA technologies LTE (Long term evolution) is the latest advancement in the cellular technology. LTE is backed by most 3GPP and 3GPP2 service providers and is commonly known as 4G. Designed to meet the needs of high speed data and mass media transport LTE is the first cellular communication system optimized from the outset to support packet-switched data services. In cellular systems, the basic System Information (SI) which allows the other channels in the cell to be configured and operated is usually carried by a Broadcast Channel (BCH). Therefore the achievable coverage for reception of the BCH is crucial to the successful operation of such cellular communication systems; LTE is no exception. This paper provides an in-depth view on the decoding of PBCH.

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Index Terms

Computer Science  Signal Processing

Keywords

LTE  OFDM  SC-OFDMA  MIMO  TDD  FDD