

Efficiently transferable bit sequence with limited disparity

Abstract

The present invention is directed to a method for generating an efficiently transferable bit sequence with a limited disparity and a limited run length. The proposed method allows data to be transmitted particularly efficiently via a transmission channel. Optimised disparity is a quality feature for the transferability of data. A disadvantageous disparity can lead to data not being transmitted properly via a data channel, as it cannot be interpreted properly by the recipient. Another quality feature is data efficiency with regard to the ratio of transmitted user data and a further data volume that is not directly related to the content of the user data. This includes so-called header data. The proposed invention makes it possible to generate data streams that can be read out particularly efficiently and are also very efficient in terms of overhead data. This minimises the so-called overhead of the user data, which in turn creates a particularly efficient process. The unambiguous interpretability on the receiver side also ensures that data does not have to be transmitted repeatedly, but can instead be read out on the receiver side with a high degree of error tolerance. Furthermore, the proposed method is particularly efficient, as data segments can be converted into sub-symbols in parallel and, in addition, only units that are technically simple to produce are required for this parallel execution. Thus, the efficiency gain here also relates to the hardware or runtime to be used. The invention is also directed to a correspondingly configured system arrangement as well as to a computer program product and a memory-readable medium with control commands which execute the method.

Figure 4