

Abstract of the Disclosure

Method of Generating a Frequency-Hopping Sequence Using Concatenated Codes, as well as Radio Facility and Radio Communication System Therefor

For radio facilities of a radio communication system (e.g., a mobile radio system) which transmit and receive using frequency-hopping techniques, a method of generating a frequency-hopping sequence is known in which a Lempel-Greenberger code (LG code) and a Reed-Solomon code are concatenated.

To improve such a method (100) in such a way as to cause a constant carrier-frequency change in which one and the same carrier frequency occurs twice in succession as seldom as possible, it is proposed to calculate elements of a pseudorandom sequence according to a first code, preferably an LG code (step 110), then to calculate for the plurality of carrier frequencies according to a second code all those possible sequences in which each of these carrier frequencies is contained only once (step 120), and then to map each element of the pseudorandom sequence to one of the possible sequences and to generate the frequency-hopping sequence by joining the sequences according to the order in which the elements of the pseudorandom sequence are generated (step 130).

(Fig. 1)

This Sheet Has Been Replaced

