

Title (en)

METHOD AND DEVICE FOR TRANSMITTING DATA ON AT LEAST ONE ELECTRICAL POWER SUPPLY LINE

Title (de)

MEHRTRÄGERÜBERTRAGUNG AUF EINER ENERGIEVERSORGUNGSLEITUNG

Title (fr)

PROCEDE ET DISPOSITIF POUR TRANSMETTRE DES DONNEES SUR AU MOINS UNE LIGNE D'ALIMENTATION EN ENERGIE ELECTRIQUE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO0251089A2] The orthogonal frequency division multiplexing (OFDM) method is well-known for transmitting data on electrical power supply lines. According to this method, the items of information to be transmitted are distributed among numerous carriers, and the composite signal of the modulated carrier signals is transmitted in the form of an OFDM block. Standard OFDM methods are, however, highly sensitive to strong periodic pulse jammers. According to the invention, the method is thus devised such that the OFDM blocks to be transmitted have a length of approximately 85 % of the interval between two periodic disturbing pulses. The carrier interval accordingly results from the reciprocal duration of the OFDM blocks. The transmitted OFDM blocks are synchronized with pulse-shaped periodic jammers in such a manner that one block at a time is located between two disturbing pulses. The pulse-shaped jammers can be gated at the receiver. To this end, the inventive device comprises an appropriately designed transmitter (20) and an associated receiver (30).

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