Title (en)

PROCESS AND DEVICE FOR SPEECH SCRAMBLING AND UNSCRAMBLING IN SPEECH TRANSMISSION

Title (de)

VERFAHREN UND EINRICHTUNG ZUR SPRACHVERSCHLEIERUNG UND -ENTSCHLEIERUNG BEI DER SPRACHÜBERTRAGUNG

Title (fr)

PROCEDE ET DISPOSITIF DE BROUILLAGE ET DE DESEMBROUILLAGE DE LA PAROLE LORS DE LA TRANSMISSION DE LA VOIX

Publication

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Application

EP 95900687 A 19941109

Priority

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Abstract (en)

[origin: US5778073A] PCT No. PCT/EP94/03693 Sec. 371 Date May 14, 1996 Sec. 102(e) Date May 14, 1996 PCT Filed Nov. 9, 1994 PCT Pub. No. WO95/15627 PCT Pub. Date Jun. 8, 1995A digitized real voice signal is converted via complex filtering into a complex signal that is subjected to sampling rate reduction, the bandwidth of the respective complex filter corresponding to the sampling rate. The complex signal is phase-modulated by means of a code signal generated by a random-number generator and additively combined with a pilot signal (likewise phase-modulated in a random distribution) to form an encrypted useful signal for transmission. The useful signal is sequentially transmitted together with a preamble for synchronization and signal equalization at the receiver end. At the receiver end, clock synchronization is forced for a phase-modulated pilot signal produced at the receiver end and equalizer coefficients for an equalizer at the receiver end are calculated from the digitized received signal after complex filtering and corresponding sampling rate reduction, during a preamble recognition phase, at which point the phase of the useful signal decryption is initialized. The encrypted, transmitted signal is separated from its phase-modulated pilot signal, which is superimposed at the transmitter end, by linking to the synchronized pilot signal, which is produced at the receiver end, and the phase-modulated, encrypted digital speech signal thus obtained is subsequently decomposed by the code signal produced at the receiving end and clockcontrolled by the preamble.

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H04K 1/00

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