

Title (en)

PROCESS AND DEVICE FOR PROTECTING THE TRANSMISSION OF VOCAL SIGNALS.

Title (de)

VERFAHREN UND SCHALTUNGSANORDNUNG ZUR GESICHERTEN ÜBERTRAGUNG VON SPRACHSIGNALEN.

Title (fr)

PROCEDE ET DISPOSITIF POUR LA TRANSMISSION PROTEGEE DE SIGNAUX VOCAUX.

Publication

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Application

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Abstract (en)

[origin: WO8102234A1] Process and device for protecting the transmission of vocal signals along a limited band-width analog transmission channel (for instance a vocal CCITT channel), protecting against illicit listening. By exploiting the speech information perceived by the human ear, the vocal signal to be transmitted is digitalized and undergoes a corresponding information reduction (A(f)) based on Fourier's transformation. The necessary information protection can thereby be obtained in the subsequent coding, with respect to the transmission distortions and the modulation is optimally adapted to the transmission behaviour. The digital form existing before this coding can be easily digitalized so that the transmitted analog signal is totally incomprehensible and can not be reconstituted even through the modern methods of analysis, while for the authorized listeners a good intelligibility subsists. By this process, through the modern means of the digital signal processing technique, an optimal solution to the safe analog transmission of speech can be achieved.

Abstract (fr)

Le procede et le dispositif correspondant pour la transmission protegee de signaux vocaux sur un canal de transmission analogique a bande limitee (par exemple un canal vocal CCITT), protegent contre l'ecoute clandestine. En exploitant l'information de la parole percue par l'ouie humaine, le signal vocal a transmettre est numerise et soumis a une reduction de l'information (A (f)) correspondante basee sur la transformation de Fourier. Ceci permet de realiser la protection necessaire de l'information dans le codage subsequent, relativement aux distorsions de la transmission, et la modulation adaptee de maniere optimale au comportement de la transmission. La forme numerique existante avant ce codage se laisse facilement chiffrer de facon telle que le signal analogique transmis soit totalement incomprehensible et ne puisse pas etre reconstitue meme avec les methodes modernes d'analyse, tandis que pour les ecouteurs autorises subsiste une bonne intelligibilite. Ce procede offre la possibilite d'obtenir, par des moyens modernes de la technique numerique de traitement des signaux, une solution optimale pour la transmission analogique sure de la parole.

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