

Title (en)

Method for frequency transposition in a hearing device and such a hearing device

Title (de)

Verfahren zur Frequenzumsetzung in einem Hörgerät und ein solches Hörgerät

Title (fr)

Procédé de transposition de fréquence dans une prothèse auditive et une telle prothèse auditive

Publication

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Application

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Priority

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Abstract (en)

The present invention is related to a method for frequency transposition in a hearing device by transforming an acoustical signal into an electrical signal (s) and by transforming the electrical signal from time domain into frequency domain to obtain a spectrum (S). According to the present invention, a frequency transposition is being applied to the spectrum (S) in order to obtain a transposed spectrum (S'), whereby the frequency transposition is being defined by a nonlinear frequency transposition function. Thereby, it is possible to transpose lower frequencies almost linearly, while higher frequencies are transposed more strongly. As a result thereof, harmonic relationships are not distorted in the lower frequency range, and at the same time, higher frequencies can be moved into a lower frequency range, namely in an audible range of the hearing impaired. The transposition scheme can be applied to the complete signal spectrum without the need for switching between non-transposition and transposition processing for different parts of the signal. Therefore, no artifacts due to switching are encountered when applying the present invention. <IMAGE>

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Cited by

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