Title (en)

METHOD AND SYSTEM FOR ACOUSTIC SHOCK DETECTION AND APPLICATION OF SAID METHOD IN HEARING DEVICES

Title (de)

VERFAHREN UND SYSTEM ZUR DETEKTION AKUSTISCHER ERSCHÜTTERUNGEN UND ANWENDUNG DES VERFAHRENS IN HÖRGERÄTEN

Title (fr)

PROCEDE ET SYSTEME DE DETECTION DE CHOCS ACOUSTIQUES ET APPLICATION DUDIT PROCEDE A DES PROTHESES AUDITIVES

Publication

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Application

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Abstract (en)

[origin: WO2007014795A2] The present invention provides a method for detecting acoustic shock in an audio input signal (s(t)), comprising the steps of monitoring the input signal (s(t)) in the time-domain. Thereby detecting the signal floor (Sn), detecting the peak level of the input signal (L) , detecting the attack time of the input signal (tl-t0), detecting the duration of the input signal (T). Based on those detections, determining a shock contrast level (SCL) as difference between the peak level (L) and the signal floor (Sn), determining a shock index (SI) by use of a shock index normalization constant (s) and comparing the shock contrast level (SCL) and the shock index (SI) with respective thresholds and indicating an acoustic shock if one or both thresholds are exceeded. Thus, the present method provides a quick and reliable shock detector that operates in the time-domain. The shock detection takes place with zero time delay, or even predicts the shock before it fully goes through the signal processing.

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