

Title (en)

Audio processing device and method of performing frequency characteristic correction processing for an audio input signal

Title (de)

Tonverarbeitungsvorrichtung und Verfahren zur Verarbeitung von Frequenzeigenschaftskorrekturen für ein Toneingangssignal

Title (fr)

Dispositif de traitement audio et procédé pour effectuer un traitement de correction de caractéristiques de fréquence pour un signal d'entrée audio

Publication

EP 2134105 A1 20091216 (EN)

Application

EP 08010723 A 20080612

Priority

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Abstract (en)

An audio processing device comprises an input terminal (2) configured to receive an audio input signal from an audio source, an equalizing circuit (7) having an input and an output, the input coupled to the input terminal (2) and configured to execute frequency characteristic correction processing for a signal received at the input, and an output circuit (8, 9, 3) coupled to the output of the equalizing circuit (7) and configured to supply an audio output signal to a speaker for audio output from the speaker. A signal analyzing circuit (11, 12) is coupled to receive the audio input signal and configured to analyze a frequency characteristic of the audio input signal for detecting the presence of a signal power of the audio input signal at at least one frequency (F1, F2) of a room mode, wherein the signal analyzing circuit (11, 12) is coupled to a control terminal of the equalizing circuit (7) for dynamically adapting the frequency characteristic correction processing at the at least one frequency of a room mode over time when the presence of the signal power of the audio input signal at the at least one frequency (F1, F2) of a room mode is detected. The device is capable of handling steady state compensation for room modes without affecting short lasting low frequency audio signals.

IPC 8 full level

H04R 3/04 (2006.01); **H04S 7/00** (2006.01)

CPC (source: EP)

H04R 3/04 (2013.01); **H04S 7/307** (2013.01); **H04R 2430/03** (2013.01); **H04R 2499/13** (2013.01); **H04S 2420/07** (2013.01)

Citation (applicant)

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- US 2004002781 A1 20040101 - JOHNSON KEITH O [US]
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Citation (search report)

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- [A] WO 2007068257 A1 20070621 - TC ELECTRONIC AS [DK], et al
- [A] MAKIVIRTA A ET AL: "MODAL EQUALIZATION OF LOUDSPEAKER-ROOM RESPONSES AT LOW FREQUENCIES", JOURNAL OF THE AUDIO ENGINEERING SOCIETY, AUDIO ENGINEERING SOCIETY, NEW YORK, NY, US, vol. 51, no. 5, 1 May 2003 (2003-05-01), pages 324 - 343, XP001178321, ISSN: 1549-4950

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