

Title (en)

DEVICE AND METHOD FOR DETERMINING A PULSE RESPONSE AND DEVICE AND METHOD FOR PLAYING AN AUDIO PIECE

Title (de)

VORRICHTUNG UND VERFAHREN ZUM BESTIMMEN EINER IMPULSANTWORT UND VORRICHTUNG UND VERFAHREN ZUM VORFUEHREN EINES AUDIOSTUECKS

Title (fr)

DISPOSITIF ET PROCEDE POUR DETERMINER UNE REPONSE EN IMPULSION ET DISPOSITIF ET PROCEDE POUR JOUER UN MORCEAU AUDIO

Publication

**EP 1514450 A2 20050316 (DE)**

Application

**EP 03775317 A 20031106**

Priority

- DE 10254470 A 20021121
- EP 0312449 W 20031106

Abstract (en)

[origin: WO2004047486A2] The invention relates to a device, which is provided for determining a pulse response in an environment, inside of which a loudspeaker (10) and a microphone (12) are placed, and which operates while using an audio signal. A device (20) for effecting the spectral coloring of a test signal, which is preferably a pseudo noise signal, operates while using a psychoacoustic masking threshold of the audio signal in order to obtain a colored test signal that is embedded in the audio signal in order to obtain a measurement signal that can be fed to the loudspeaker (10). A device (30, 32) for determining the pulse response preferably carries out a cross-correlation of a reaction signal, which is received from the environment via the microphone, and of the test signal or of the colored test signal. This enables a pulse response of an environment to be determined even while playing an audio piece in order to provide an optimal description of the environment for a wavefield synthesis.

IPC 1-7

**H04S 7/00**

IPC 8 full level

**H04S 7/00** (2006.01); **H04R 29/00** (2006.01)

CPC (source: EP)

**H04S 7/30** (2013.01); **H04R 29/007** (2013.01); **H04S 2420/13** (2013.01)

Citation (search report)

See references of WO 2004047486A2

Cited by

EP3544319A1; EP3292703A4; EP3826324A1; US9648437B2; US10924874B2; US10957332B2; US10499151B2; US10856079B2; US11356775B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2004047486 A2 20040603**; **WO 2004047486 A3 20040910**; AT E312499 T1 20051215; AU 2003283370 A1 20040615;  
AU 2003283370 A8 20040615; CN 100539743 C 20090909; CN 1711802 A 20051221; DE 10254470 A1 20040617; DE 10254470 B4 20060126;  
DE 50301876 D1 20060112; EP 1514450 A2 20050316; EP 1514450 B1 20051207; HK 1071013 A1 20050630; JP 2006506671 A 20060223;  
JP 4234103 B2 20090304

DOCDB simple family (application)

**EP 0312449 W 20031106**; AT 03775317 T 20031106; AU 2003283370 A 20031106; CN 200380103398 A 20031106; DE 10254470 A 20021121;  
DE 50301876 T 20031106; EP 03775317 A 20031106; HK 05103551 A 20050426; JP 2004552538 A 20031106