Title (en)

Method for optimised filtering of non-stationary interference captured by a multi-microphone audio device, in particular a hands-free telephone device for an automobile.

Title (de)

Verfahren zur optimierten Filterung nicht stationärer Geräusche, die von einem Audiogerät mit mehreren Mikrophonen eingefangen werden, insbesondere eine Freisprechtelefonanlage für Kraftfahrzeuge

Title (fr)

Procédé de filtrage optimisé des bruits non stationnaires captés par un dispositif audio multi-microphone, notamment un dispositif téléphonique "mains libres" pour véhicule automobile

Publication

EP 2309499 B1 20111019 (FR)

Application

EP 10167065 A 20100623

Priority

FR 0956506 A 20090922

Abstract (en)

[origin: EP2309499A1] The method involves combining signals picked up by two microphones to make a noisy combined signal, and calculating a probability that speech is absent from the noisy combined signal on the basis of respective spectral energy levels of the noisy combined signal and of a referent noise signal. Noise is selectively reduced by applying variable gain that is specific to each frequency band and to each time frame on the basis of the probability that speech is absent and on the basis of the noisy combined signal.

IPC 8 full level

G10L 21/02 (2006.01); **G10L 21/0208** (2013.01); **H04B 1/12** (2006.01); **H04R 3/00** (2006.01); G10L 21/0216 (2013.01)

CPC (source: EP US)

G10L 21/0208 (2013.01 - EP US); **H04R 3/005** (2013.01 - EP US); G10L 2021/02166 (2013.01 - EP US); H04R 2499/13 (2013.01 - EP US)

Cited by

EP2538409A1; FR2976710A1; CN102855880A; US8504117B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

EP 2309499 A1 20110413; **EP 2309499 B1 20111019**; AT E529860 T1 20111115; ES 2375844 T3 20120306; FR 2950461 A1 20110325; FR 2950461 B1 20111021; US 2011070926 A1 20110324; US 8195246 B2 20120605

DOCDB simple family (application)

EP 10167065 A 20100623; AT 10167065 T 20100623; ES 10167065 T 20100623; FR 0956506 A 20090922; US 84097610 A 20100721