

Title (en)

IMPROVED FREQUENCY BAND EXTENSION IN AN AUDIO FREQUENCY SIGNAL DECODER

Title (de)

VERBESSERTE AUSDEHNUNG EINES FREQUENZBANDS IN EINEM DEKODIERER VON AUDIOFREQUENZSIGNALEN

Title (fr)

EXTENSION AMÉLIORÉE DE BANDE DE FRÉQUENCE DANS UN DÉCODEUR DE SIGNAUX AUDIOFRÉQUENCES

Publication

EP 3330967 A1 20180606 (FR)

Application

EP 17206567 A 20150204

Priority

- FR 1450969 A 20140207
- EP 15705687 A 20150204
- FR 2015050257 W 20150204

Abstract (en)

[origin: WO2015118260A1] The invention relates to a method for extending the frequency band of an audio signal during a decoding or improvement process, comprising a step of obtaining the decoded signal in a first frequency band, referred to as a low band. The method is such that it comprises the steps of: extracting (E402) tonal components and a surround signal from a signal from the low-band signal, combining (E403) tonal components and the surround signal by adaptive mixing using energy-level control factors to obtain an audio signal, referred to as a combined signal, extending (E401a) the low-band decoded signal before the extraction step or the combined signal after the combination step over at least one second frequency band which is higher than the first frequency band. The invention also relates to a frequency-band extension device which implements the described method and to a decoder comprising a device of this type.

Abstract (fr)

L'invention se rapporte à un procédé d'extension de bande de fréquence d'un signal audiofréquence lors d'un processus de décodage ou d'amélioration comportant une étape d'obtention du signal décodé dans une première bande de fréquence dite bande basse, le procédé étant caractérisé en ce qu'il comporte les étapes suivantes : - Extension (E401a) sur au moins une deuxième bande de fréquence supérieure à la première bande de fréquence du signal décodé bande basse pour former un signal bande basse décodé étendu ; - Extraction (E402) de composantes tonales et d'un signal d'ambiance à partir du signal issu du signal bande basse étendu ; - Combinaison (E403) des composantes tonales et du signal d'ambiance par mixage adaptatif utilisant des facteurs de contrôle de niveau d'énergie pour obtenir un signal audio, dit combiné ; et selon lequel les facteurs de contrôle du niveau d'énergie comprennent un facteur de contrôle du niveau d'ambiance, #, et un facteur de contrôle du niveau d'énergie, fac, calculé en fonction de l'énergie totale du signal bande basse décodé étendu et des composantes tonales. L'invention se rapporte également à un dispositif d'extension de bande de fréquence mettant en oeuvre le procédé décrit et un décodeur comportant un tel dispositif.

IPC 8 full level

G10L 21/038 (2013.01)

CPC (source: EP KR RU US)

B41K 1/04 (2013.01 - US); **B41K 1/10** (2013.01 - US); **B41K 1/12** (2013.01 - US); **B41K 1/38** (2013.01 - US); **B41K 1/40** (2013.01 - US); **B41K 1/42** (2013.01 - US); **B41K 3/56** (2013.01 - US); **G10L 19/0204** (2013.01 - KR US); **G10L 19/0212** (2013.01 - KR); **G10L 21/038** (2013.01 - EP KR RU US); **G10L 25/21** (2013.01 - KR US); **G10L 19/00** (2013.01 - US); **G10L 19/26** (2013.01 - US); **G10L 21/02** (2013.01 - US)

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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 RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2015118260 A1 20150813; BR 112016017616 A2 20170808; BR 112016017616 B1 20230328; BR 122017027991 B1 20240312; CN 105960675 A 20160921; CN 105960675 B 20200505; CN 107993667 A 20180504; CN 107993667 B 20211207; CN 108022599 A 20180511; CN 108022599 B 20220517; CN 108109632 A 20180601; CN 108109632 B 20220329; DK 3103116 T3 20210726; DK 3330966 T3 20230925; EP 3103116 A1 20161214; EP 3103116 B1 20210505; EP 3327722 A1 20180530; EP 3327722 B1 20240410; EP 3330966 A1 20180606; EP 3330966 B1 20230726; EP 3330967 A1 20180606; EP 3330967 B1 20240410; ES 2878401 T3 20211118; ES 2955964 T3 20231211; FI 3330966 T3 20231004; FR 3017484 A1 20150814; HR P20211187 T1 20211029; HR P20231164 T1 20240119; HU E055111 T2 20211028; HU E062979 T2 20231228; JP 2017509915 A 20170406; JP 2019168708 A 20191003; JP 2019168709 A 20191003; JP 2019168710 A 20191003; JP 6625544 B2 20191225; JP 6775063 B2 20201028; JP 6775064 B2 20201028; JP 6775065 B2 20201028; KR 102380205 B1 20220329; KR 102380487 B1 20220329; KR 102426029 B1 20220729; KR 102510685 B1 20230316; KR 20160119150 A 20161012; KR 20180002906 A 20180108; KR 20180002907 A 20180108; KR 20180002910 A 20180108; KR 20220035271 A 20220321; LT 3103116 T 20210726; LT 3330966 T 20230925; MX 2016010214 A 20161115; MX 363675 B 20190329; PL 3103116 T3 20211122; PL 3327722 T3 20240715; PL 3330966 T3 20231218; PL 3330967 T3 20240715; PT 3103116 T 20210712; PT 3330966 T 20231004; RS 62160 B1 20210831; RS 64614 B1 20231031; RU 2016136008 A 20180313; RU 2016136008 A3 20180913; RU 2017144521 A 20190218; RU 2017144521 A3 20210401; RU 2017144522 A 20190218; RU 2017144522 A3 20210401; RU 2017144523 A 20190218; RU 2017144523 A3 20210401; RU 2682923 C2 20190322; RU 2763481 C2 20211229; RU 2763547 C2 20211230; RU 2763848 C2 20220111; SI 3103116 T1 20210930; SI 3330966 T1 20231229; US 10043525 B2 20180807; US 10668760 B2 20200602; US 10730329 B2 20200804; US 11312164 B2 20220426; US 11325407 B2 20220510; US 2017169831 A1 20170615; US 2018141361 A1 20180524; US 2018304659 A1 20181025; US 2020338917 A1 20201029; US 2020353765 A1 20201112; ZA 201606173 B 20181128; ZA 201708366 B 20190529; ZA 201708368 B 20181128

DOCDB simple family (application)

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