

PATENT N°: US 8401843 B2

Jurisdiction: US

Names of the Evaluators		
Lead Evaluator	Assistant Evaluator #1	Assistant Evaluator #2
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The above mentioned Evaluators hereby declare that the following claim(s):

- Claim 11
- Claim 41

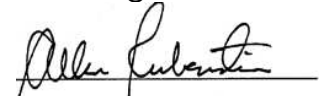
in the above referenced patent, is(are) essential to making, using in, selling within, or importing into, the countries of registration, any 3GPP product (the applicable Product Categories are given below) that is or purports to be in compliance with the following parts of the Third Generation Partnership Program (3GPP) technical standards:

- Document 3GPP TS 26.445 V12.1.0 (2014-12): Sections 3.2, 4.4 5.2, 5.2.3.1.2, 5.2.3.2.1 and 5.3.4.1

Claim 11 is relevant for 3GPP Terminal Products and 3GPP Base Station Products.
Claim 41 is relevant for 3GPP Terminal Products and 3GPP Base Station Products.

Authorized signature and date

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(12) **United States Patent**
Eksler et al.

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(45) **Date of Patent:** **Mar. 19, 2013**

(54) **METHOD AND DEVICE FOR CODING TRANSITION FRAMES IN SPEECH SIGNALS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 939 days.

(21) Appl. No.: **12/446,892**

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§ 371 (c)(1),
(2), (4) Date: **Jun. 23, 2009**

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PCT Pub. Date: **May 2, 2008**

(65) **Prior Publication Data**

US 2010/0241425 A1 Sep. 23, 2010

Related U.S. Application Data

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(51) **Int. Cl.**
G10L 19/00 (2006.01)
G10L 19/12 (2006.01)
G10L 21/02 (2006.01)

(52) **U.S. Cl.** **704/219; 704/221; 704/226**

(58) **Field of Classification Search** None
See application file for complete search history.

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(57) **ABSTRACT**

There is provided a transition mode device and method for use in a predictive-type sound signal codec for producing a transition mode excitation replacing an adaptive codebook excitation in a transition frame and/or a frame following the transition in the sound signal, comprising an input for receiving a codebook index and a transition mode codebook for generating a set of codevectors independent from past excitation. The transition mode codebook is responsive to the index for generating, in the transition frame and/or frame following the transition, one of the codevectors of the set corresponding to the transition mode excitation. There is also provided an encoding device and method and a decoding device and method using the above described transition mode device and method.

59 Claims, 14 Drawing Sheets

