PATENT N°: US 9252728 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 1
- Claim 17

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 2, 4,4, 6.1.3, 6.8.1.1, 6.8.1.4.2, 6.8.1.4.2.1, 6.8.1.4.2.3.2, 6.8.1.4.2.3.3, 6.8.1.4.2.3.4, 6.8.1.4.2.3.5, 6.8.1.4.2.4 and 6.8.1.5
- 3GPP TS 26.447 V12.1.0 (2014-12): Section 5.1.2; Table 2

Claim 1 is relevant for 3GPP Terminal Products and 3GPP Base Station Products.
Claim 17 is relevant for 3GPP Terminal Products and 3GPP Base Station Products.

Authorized signature and date
December 12, 2017

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

(10) **Patent No.: US 9,252,728 B2**
(45) **Date of Patent: Feb. 2, 2016**

(54) **NON-SPEECH CONTENT FOR LOW RATE CELP DECODER**

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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 391 days.

(21) Appl. No.: **13/667,921**

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(65) **Prior Publication Data**

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Related U.S. Application Data

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(51) **Int. Cl.**

G10L 21/00	(2013.01)
H03G 3/20	(2006.01)
G10L 19/20	(2013.01)
G10L 19/26	(2013.01)
G10L 19/08	(2013.01)

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(52) **U.S. Cl.**

CPC ***H03G 3/20*** (2013.01); ***G10L 19/20*** (2013.01); ***G10L 19/26*** (2013.01); *G10L 19/08* (2013.01); *G10L 19/22* (2013.01); *G10L 25/78* (2013.01); *G10L 25/81* (2013.01); *G10L 25/93* (2013.01)

(58) **Field of Classification Search**

CPC H03G 5/00; G10L 19/12; G10L 19/02

USPC 381/22, 98; 704/206, 500, E19.001, 219

See application file for complete search history.

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(57) **ABSTRACT**

A method and device for modifying a synthesis of a time-domain excitation decoded by a time-domain decoder, wherein the synthesis of the decoded time-domain excitation is classified into one of a number of categories. The decoded time-domain excitation is converted into a frequency-domain excitation, and the frequency-domain excitation is modified as a function of the category in which the synthesis of the decoded time-domain excitation is classified. The modified frequency-domain excitation is converted into a modified time-domain excitation, and a synthesis filter is supplied with the modified time-domain excitation to produce a modified synthesis of the decoded time-domain excitation.

32 Claims, 4 Drawing Sheets