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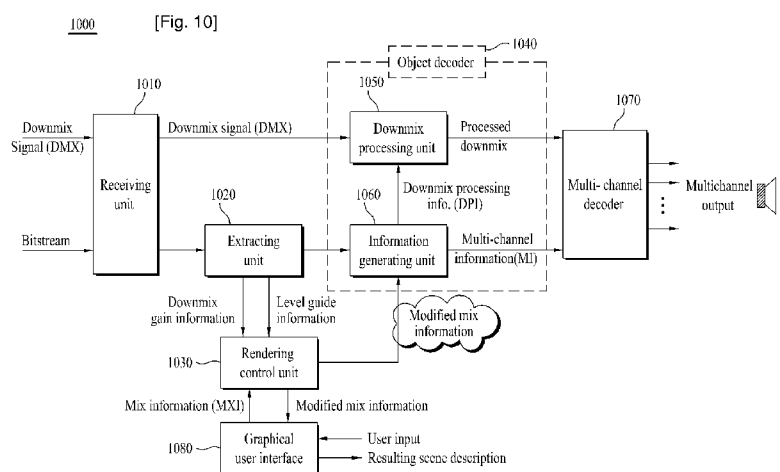
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(54) Title: A METHOD AND AN APPARATUS FOR DECODING AN AUDIO SIGNAL



(57) Abstract: The present invention relates to an apparatus for processing an audio signal and method thereof. The present invention includes a receiving unit receiving a downmix signal comprising plural objects, a bitstream including object information and level guide information, and a graphical user interface receiving a user input for controlling level for at least one object among the plural objects, and displaying a representation corresponding to the level guide information, wherein the object information is determined when the downmix signal is generated, the level guide information indicates rendering limit for at least one object of the plural objects, the representation includes a non-recommended rendering region representing the rendering limit and a recommended rendering region representing rendering range except for the rendering limit. Accordingly, the present invention enables a user to check whether the panning and gain adjustment of user-specific objects is actually performed in a manner of displaying a result of the adjustment on a user interface.

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**A. CLASSIFICATION OF SUBJECT MATTER***G11B 20/10(2006.01)i, G10L 19/00(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

G11B 20/10; G06F 17/00; G10L 19/00; G10L 21/00; H04R 5/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: audio, signal, downmix, object, information, mix, level, rendering, bitstream, and user interface

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0269929 A1 (OH, HYEN-O et al.) 30 October 2008 See paragraph [0027] - paragraph [0034]; claim 1 and figures 1-3.	1-13
A	US 2008-0205657 A1 (OH, HYEN-O et al.) 28 August 2008 See paragraph [0100] - paragraph [0105]; claim 1 and figures 7-8.	1-13
A	US 2009-0006106 A1 (PANG, HEE SUK et al.) 01 January 2009 See paragraph [0038] - paragraph [0053]; claim 1 and figure 1.	1-13
A	US 2008-0140426 A1 (KIM, DONG SOO et al.) 12 June 2008 See paragraph [0114] - paragraph [0118]; claim 1 and figure 16.	1-13

 Further documents are listed in the continuation of Box C. See patent family annex.

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