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(54) **Title:** SYSTEMS AND METHODS FOR GENERATING A DIGITAL OUTPUT SIGNAL IN A DIGITAL MICROPHONE SYSTEM

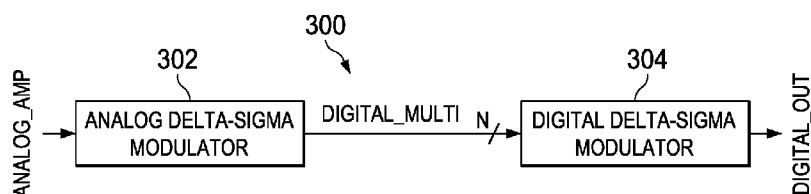


FIG. 3

(57) **Abstract:** In accordance with embodiments of the present disclosure, a digital microphone system may include a microphone transducer and a digital processing system. The microphone transducer may be configured to generate an analog input signal indicative of audio sounds incident upon the microphone transducer. The digital processing system may be configured to convert the analog input signal into a first digital signal having three or more quantization levels, and in the digital domain, process the first digital signal to convert the first digital signal into a second digital signal having two quantization levels.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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)
H03M

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

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

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009/278721 A1 (HAMASHITA KOICHI [JP] ET AL) 12 November 2009 (2009-11-12) paragraphs [0009], [0012], [0030], [0033] - [0035], [0046]; figures 1-5 -----	1-22
A	US 7 170 434 B2 (MELANSON JOHN L [US]) 30 January 2007 (2007-01-30) cited in the application column 8, lines 31-47; figures 6A, 11 column 21, lines 22-55 -----	7,8,14, 15,20,21



Further documents are listed in the continuation of Box C.



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INTERNATIONAL SEARCH REPORT

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