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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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[Continued on next page]

(54) Title: AUTO BIAS MICROPHONE SYSTEM FOR USE WITH MULTIPLE LOADS AND METHOD OF FORMING SAME

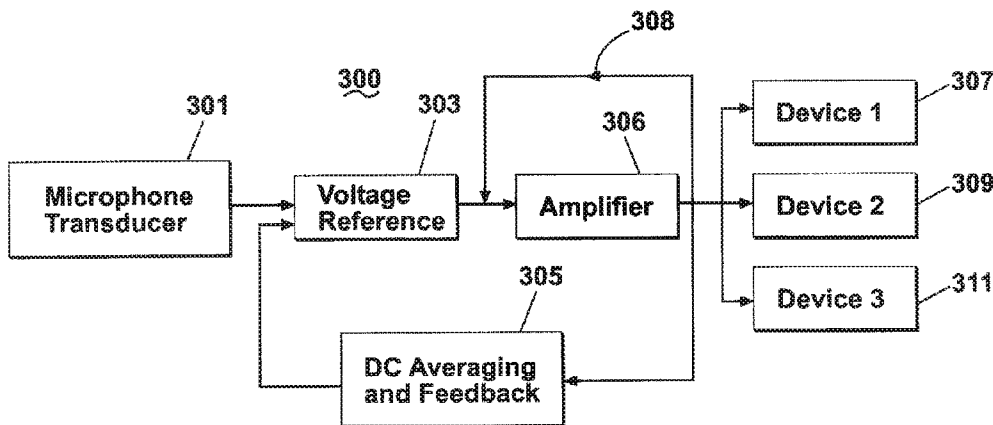


FIG. 3

(57) Abstract: An autobias vehicular microphone system (300) includes a microphone (301) uses an amplifier (306) for amplifying an output of the microphone. A first feedback path (308) provides an amplifier output signal to the amplifier input for providing amplifier linearity and a second feedback path (305) is used for providing bias to an voltage reference (303). The voltage reference (303) operates to provide an autobias to the amplifier (306) based upon amplifier loading. Thus, a DC feedback loop works as an average voltage sensing circuit operating to center the amplifier (306) to an operating point near one half its supply voltage. By allowing the bias point to vary, a constant clip level can be maintained depending on varying load conditions of electronic devices (307, 309, 311) using the microphone (301).

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A. CLASSIFICATION OF SUBJECT MATTER**H04R 9/08(2006.01)i, H04R 3/00(2006.01)i**

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC : H04R, H03F, H03K

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 since 1975

Japanese Utility models and applications for Utility models since 1975

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

PAJ, FPD, USPAT, eKIPASS, IEEE, YAHOO, GOOGLE, Keyword: "microphone, autobias, variagle load, feedback"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002-0071578 A1 (Eric Jurgen Van Der Zwan et al) 13 June 2002 (See Abstract, Figs. 3-5, paragraphs [0031]-[0048])	1-17
Y	US 6784708 B1 (Rainer Krenzke) 31 August 2004 (See Abstract, Figs. 1, 3, column 4 line 28-column 7 line 45)	1-17
A	US 6429746 B1 (Eero Koukkari) 06 August 2002 (See Abstract, Figs.2-4, column 4 line 16- column 7 line 39)	1-17
A	US 6351189 B1 (Mika Hirvilampi) 26 February 2002 (See Abstract, Fig.3, column 4 line 30-column 7 line 33)	1-17

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

* Special categories of cited documents:

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