

EXHIBIT E



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(12) **EX PARTE REEXAMINATION CERTIFICATE** (9179th)
United States Patent
Norris et al.

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(54) **HANDHELD RECORD AND PLAYBACK DEVICE WITH FLASH MEMORY**

(58) **Field of Classification Search** 704/270
See application file for complete search history.

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(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/011,302, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

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Reexamination Request:

No. 90/011,302, Oct. 27, 2010

(57) **ABSTRACT**

Reexamination Certificate for:

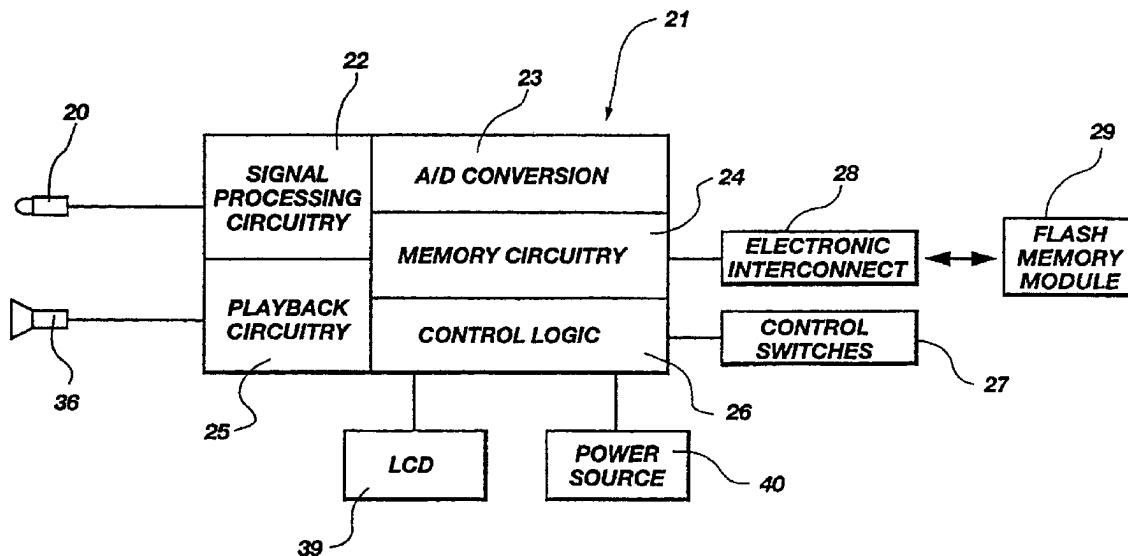
Patent No.: **5,491,774**
Issued: **Feb. 13, 1996**
Appl. No.: **08/229,731**
Filed: **Apr. 19, 1994**

A record/playback device for use with a removable, interchangeable, flash memory recording medium which enables extended recording comparable with tape cassette dictating equipment. The device includes a housing, a microphone element, control circuitry and a switch mounted on the housing for selecting desired functional operations. A receiving socket is coupled to memory circuitry associated with the control circuitry and is configured for electrical coupling with a flash memory module adapted for receiving and retaining recorded digital information for storage in nonvolatile form.

Certificate of Correction issued Jun. 12, 2007.

(51) **Int. Cl.**
G10L 11/00 (2006.01)

(52) **U.S. Cl.** 704/270; 369/24.01



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EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307

THE PATENT IS HEREBY AMENDED AS
INDICATED BELOW.

Matter enclosed in heavy brackets [] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

Claims 1 and 19 are cancelled.

Claims 2 and 18 are determined to be patentable as amended.

Claims 3, 4 and 5, dependent on an amended claim, are determined to be patentable.

New claims 23-34 are added and determined to be patentable.

Claims 6-17 and 20-22 were not reexamined.

2. A device as defined in claim [1] 33, comprises a flash memory module inserted within the receiving socket and which has the capacity to store digital information without need for ongoing power support.

18. A device as defined in claim [1] 33, wherein said housing is of sufficiently small dimensions so as to rest within a hand to enable fingers of the hand to simultaneously grip the housing while manipulating a switch means mounted thereon.

23. A device as defined in claim 33 wherein the multiple transistors are further configured to optionally disable supply of electrical power to both the microphone element and the speaker between occurrences of record and playback functional operations and in response to control signals provided by the microprocessor.

24. A device as defined in claim 33 wherein the multiple transistors include, at least one transistor configured to enable and to disable supply of electrical power to the receiving socket; and at least one transistor configured to enable and to disable supply of electrical power to one or both of the microphone element and the speaker.

25. A device as defined in claim 33 wherein the multiple transistors are configured to optionally disable supply of electrical power to the speaker in response to control signals provided by the microprocessor.

26. A device as defined in claim 33, wherein the microphone element is coupled to a portion of the amplification circuitry;

wherein the speaker is coupled to a different portion of the amplification circuitry; and

wherein enabling and disabling supply of electrical power to the microphone element includes enabling and disabling supply of electrical power to the portion of the amplification circuitry coupled to the microphone element; and

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wherein enabling and disabling supply of electrical power to the speaker includes enabling and disabling supply of electrical power to the portion of the amplification circuitry coupled to the speaker.

27. A device as defined in claim 33 further including:
a DSP;

wherein the multiple transistors are further configured to enable supply of electrical power to the DSP, during record and playback functional operations and in response to control signals provided by the microprocessor, and to disable supply of electrical power to the DSP between occurrences of record and playback functional operations and in response to control signals provided by the microprocessor.

28. A device as defined in claim 34 wherein the multiple transistors are further configured to optionally disable supply of electrical power to both the microphone element and the speaker between occurrences of record and playback functional operations and in response to control signals provided by the microprocessor.

29. A device as defined in claim 34 wherein the multiple transistors include, at least one transistor configured to enable and to disable supply of electrical power to the flash memory module; and

at least one transistor configured to enable and to disable supply of electrical power to one or both of the microphone element and the speaker.

30. A device as defined in claim 34 wherein the multiple transistors are configured to optionally disable supply of electrical power to the speaker in response to control signals provided by the microprocessor.

31. A device as defined in claim 34, wherein the microphone element is coupled to a portion of the amplification circuitry;

wherein the speaker is coupled to a different portion of the amplification circuitry; and

wherein enabling and disabling supply of electrical power to the microphone element includes enabling and disabling supply of electrical power to the portion of the amplification circuitry coupled to the microphone element; and

wherein enabling and disabling supply of electrical power to the speaker includes enabling and disabling supply of electrical power to the portion of the amplification circuitry coupled to the speaker.

32. A device as defined in claim 34 further including:
a DSP;

wherein the multiple transistors are further configured to enable supply of electrical power to the DSP during record and playback functional operations and in response to control signals provided by the microprocessor, and

to disable supply of electrical power to the DSP between occurrences of record and playback functional operations and in response to control signals provided by the microprocessor.

33. A record/playback device for use with a removable, interchangeable, flash memory recording medium which enables extended recording comparable with tape cassette dictating equipment, said device comprising:

a housing;

a microphone element coupled to the housing and configured to receive and process sound into electrical signals;

control circuitry coupled to the microphone element and including signal input circuitry, amplification circuitry,

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analog-to-digital conversion circuitry, memory control circuitry, signal output circuitry and control logic circuitry, which includes a microprocessor coupled to switch circuitry, for performing record and playback functional operations with respect to the electrical signals and other regulated components of the record/

5 playback device;
switch means coupled to the control circuitry for selecting the desired functional operations to be performed;

10 a receiving socket electrically coupled to the memory control circuitry and configured for electrical coupling with a flash memory module which operates as sole memory of the received processed sound electrical signals and is capable of retaining recorded digital information for storage in nonvolatile form;

15 a speaker coupled to the control circuitry for playback of recorded digital information; and

a power source coupled to the control circuitry for supplying electrical power to the device;

20 wherein the power source is coupled to the switch circuitry; and

25 wherein the switch circuitry includes multiple transistors configured, to enable supply of electrical power to the receiving socket and to enable at least one of the microphone element and the speaker during record and playback functional operations and in response to control signals provided by the microprocessor, and to optionally disable supply of electrical power to the receiving socket and to optionally enable supply of electrical power to at least one of the microphone element and the speaker between occurrences of record and playback functional operations and in response to control signals provided by the microprocessor.

34. A record/playback device for use with a removable, interchangeable, flash memory recording medium which enables extended recording comparable with tape cassette dictating equipment, said device comprising:

35 a housing;

a microphone element coupled to the housing and configured to receive and process sound into electrical signals;

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control circuitry coupled to the microphone element and including signal input circuitry, amplification circuitry, analog-to-digital conversion circuitry, memory control circuitry, signal output circuitry and control logic circuitry, which includes a microprocessor coupled to switch circuitry, for performing record and playback functional operations with respect to the electrical signals and other regulated components of the record/

10 playback device;
switch means coupled to the control circuitry for selecting the desired functional operations to be performed;

a receiving socket electrically coupled to the memory control circuitry and configured for electrical coupling with a recording medium which is capable of retaining recorded digital information for storage;

15 a flash memory module which operates as sole memory of the received processed sound electrical signals and is capable of retaining recorded digital information for storage in nonvolatile form;

20 a speaker coupled to the control circuitry for playback of recorded digital information; and

a power source coupled to the control circuitry for supplying electrical power to the device;

25 wherein the power source is coupled to the switch circuitry; and

30 wherein the switch circuitry includes multiple transistors configured, to enable supply of electrical power to the flash memory module and to enable at least one of the microphone element and the speaker during record and playback functional operations and in response to control signals provided by the microprocessor, and to optionally disable supply of electrical power to the flash memory module and to optionally enable supply of electrical power to at least one of the microphone element and the speaker between occurrences of record and playback functional operations and in response to control signals provided by the microprocessor.

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