

EXHIBIT 1019

Customer No. 035884

Attorney Docket No. 2080-3507

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Jong Wook Lee

Serial No: 11/401,798

Filed: April 10, 2006

FOR: AUDIO AND VIDEO SYNCHRONIZING
APPARATUS AND METHOD

Art Unit: 2622

Examiner: DESIR, Jean Wicel

Conf. No.: 6246

RESPONSE TO OFFICE ACTION

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This paper is in response to the Office Action dated November 15, 2010, in connection with the above-identified application, the response to which is due February 15, 2011. This paper is submitted with a Petition and corresponding fee for a one-month extension of time. It is believed that no fee is due in connection with this paper. Please charge any fees and credit any overpayment to our deposit account No. 502290. Please enter and consider the following amendments and remarks:

IN THE CLAIMS:

Please amend claims 1, 4, 6-10 and 12-18 as follows:

1. (Currently amended) An audio and video synchronizing apparatus comprising:

a video signal processing unit processing a video signal ~~output that is provided~~ to a display device of video processing equipment;

an audio signal processing unit ~~outputting~~ processing an audio signal that is provided, ~~the audio signal output~~ to an audio device of the video processing equipment, the audio signal ~~and~~ synchronized with the video signal;

a switching unit selecting paths for the video signal that is input to the video signal processing unit and the audio signal that is input to the audio signal processing unit, and selecting at least ~~a video or an~~ audio signal for output to an external device that is not part of the video processing equipment;

an outputting unit outputting the selected at least ~~the an~~ audio ~~or video~~ signal to the external device ~~selected by the switching unit~~; and

an output selecting unit controlling the switching unit according to a kind of the external device ~~connected to the outputting unit and selectively outputting at least the audio or video signal to the external device~~,

~~wherein the video signal is output to the display device of the video processing equipment and the audio signal that is synchronized with the video signal is output to the external device simultaneously~~

wherein the switching unit is controlled to select a first audio signal that bypasses the audio signal that is input to the audio signal processing unit as the at least an audio signal for output to the external device or to select a second audio signal output from the audio signal processing unit as the at least an audio signal for output to the outputting unit.

2. (Previously presented) The apparatus according to claim 1, further comprising a detector detecting the kind of the external device connected to the outputting unit.

3. (Previously presented) The apparatus according to claim 1, wherein the kind of the external device connected to the outputting unit is either an audio/video device or an audio device.

4. (Currently amended) The apparatus according to claim 3, wherein ~~when it is determined that the external device connected to the outputting unit is the audio device,~~ the switching unit is controlled to select the second audio signal when it is determined that that is synchronized with the external video signal output to the display device connected to of the outputting unit is the audio device~~video processing equipment.~~

5. (Previously presented) The apparatus according to claim 1, wherein the kind of the external device connected to the outputting unit is determined according to whether the external device is connected to a video output port or an audio output port.

6. (Currently amended) An audio and video synchronizing apparatus comprising:

a video signal processing unit processing a video signal ~~output that is provided~~ to a display device of video processing equipment;

an audio signal processing unit ~~outputting processing~~ an audio signal, ~~the audio signal output that is provided~~ to an audio device of the video processing equipment, ~~the audio signal~~ and synchronized with the video signal; and

an output selecting unit selecting ~~the an~~ audio signal that is ~~synchronized with the video signal and outputting the audio signal output~~ to an external device that is not part of the video processing equipment,

~~wherein the video signal is output to the display device of the video processing equipment and the audio signal that is synchronized with the video signal is output to the external device simultaneously~~

wherein the output selecting unit selects a first audio signal that bypasses the audio signal that is input to the audio signal processing unit as the audio signal that is

output to the external device or selects a second audio signal output from the audio signal processing unit as the audio signal that is output to the external device.

7. (Currently amended) An audio and video synchronizing apparatus comprising:

a video signal processing unit processing a video signal ~~output that is provided~~ to a display device of video processing equipment;

an audio signal processing unit outputting ~~the~~ an audio signal that is synchronized with the video signal; and

an audio output selecting unit selecting an audio signal that is ~~synchronized with the video signal and outputting the audio signal~~ output to an external device that is not part of the video processing equipment,

~~wherein the video signal is output to the display device of the video processing equipment and the audio signal that is synchronized with the video signal is output to the external device simultaneously~~

wherein the audio output selecting unit selects an audio signal that bypasses the audio signal that is input to the audio signal processing unit or selects an audio signal output from the audio signal processing unit that is synchronized with the video signal as the audio signal that is output to the external device.

8. (Currently amended) An audio and video synchronizing apparatus comprising:

a video signal processing unit processing a video signal ~~output that is provided~~ to a display device of video processing equipment;

an audio signal ~~processor~~ processing unit ~~outputting~~ processing an audio signal, ~~the audio signal output that is provided~~ to an audio device of the video processing equipment, ~~the audio signal~~ and synchronized with the video signal;

an outputting unit outputting at least ~~the~~ an audio ~~or video~~ signal to an external device that is not part of the video processing equipment; and

~~an output selecting unit selectively controlling the outputting at least the audio or video signal to the external device~~unit according to a kind of the external device connected to the outputting unit,

~~wherein the video signal is output to the display device of the video processing equipment and the audio signal that is synchronized with the video signal is output to the external device simultaneously~~

wherein the output selecting unit controls the outputting unit to select a first audio signal that bypasses the audio signal that is input to the audio signal processing unit as the at least an audio signal output to the external device or to select a second audio signal output from the audio signal processing unit as the at least an audio signal output to the external device.

9. (Currently amended) An audio and video synchronizing apparatus comprising:

a video signal processing unit processing a video signal ~~output that is provided~~ to a display device of video processing equipment;

an audio signal processing unit ~~outputting~~processing an audio signal, ~~the audio signal output that is provided~~ to an audio device of the video processing equipment, the audio signal ~~and~~ synchronized with the video signal;

an outputting unit outputting at least the ~~an~~ audio or video signal to an external device that is not part of the video processing equipment;

a detecting unit detecting a kind of the external device ~~connected to the outputting unit~~; and

an output selecting unit ~~selecting~~controlling the outputting unit ~~the audio signal that is synchronized with the video signal when it is detected that the external device is an audio device and transmitting according to the audio signal to detected kind of the external audio device through the outputting unit,~~

~~wherein the video signal is output to the display device of the video processing equipment and the audio signal that is synchronized with the video signal is output to the external device simultaneously~~

wherein the output selecting unit controls the outputting unit to select a first audio

signal that bypasses the audio signal that is input to the audio signal processing unit as the at least an audio signal output to the external device or to select a second audio signal output from the audio signal processing unit as the at least an audio signal output to the external device.

10. (Currently amended) A method of controlling audio and video output comprising:

determining a kind of an external device that is not part of the video processing equipment and is connected to an output port of video processing equipment; and

selecting an audio signal ~~that is synchronized with a video signal output to a display device of the video processing equipment according to a result of the determination and outputting the~~ selected audio signal to the external device ~~that is not part of the video processing equipment,~~

~~wherein the video signal is output to the display device of the video processing equipment and the audio signal that is synchronized with the video signal is output to the external device simultaneously~~

wherein the selected audio signal is either a first audio signal that bypasses an audio signal that is input to an audio signal processing unit that synchronizes the audio signal with a video signal that is provided to a display device of the video processing equipment or a second audio signal output from the audio signal processing unit.

11. (Previously presented) The method according to claim 10, determining the kind of the external device comprises determining whether the external device connected to the output port is an audio device.

12. (Currently amended) The method according to claim 10, ~~further comprising selecting~~wherein the second audio signal is an audio signal ~~outputted that is~~ provided to a speaker of the video processing equipment and synchronized with the video signal, ~~and outputting the audio signal to the external device.~~

13. (Currently amended) The method according to claim 10, wherein the

~~operation of selecting the audio signal synchronized with the video signal and outputting the selected audio signal to the external device is performed automatically according to a result of the determination of the kind of the external device.~~

14. (Currently amended) The method according to claim 10, wherein ~~the operation of selecting the audio signal synchronized with the video signal and outputting the selected audio signal to the external device is performed by~~ according to a user's output mode setting.

15. (Currently amended) The method according to claim 10, wherein the audio signal that is synchronized with the video signal is ~~an audio signal delayed corresponding according to~~ a video signal processing path.

16. (Currently amended) A method of controlling audio and video output comprising:

selecting an output mode of video processing equipment; and

selecting an audio signal according to the selected output mode ~~synchronized with a video signal for output to a display device of the video processing equipment when the selected output mode is for an external audio device~~ that is not part of the video processing equipment; and

outputting the selected audio signal to the external audio device ~~that is not part of the video processing equipment,~~

~~wherein the video signal is output to the display device of the video processing equipment and the audio signal that is synchronized with the video signal is output to the external audio device simultaneously~~

wherein the selected audio signal is either a first audio signal that bypasses an audio signal that is input to an audio device of the video processing equipment that synchronizes the audio signal with a video signal that is provided to a display device of the video processing equipment or a second audio signal output from the audio device.

17. (Currently amended) The method according to claim 16, further

comprising:

~~Selecting~~wherein the second audio signal is an audio signal ~~output that is~~
provided to a speaker of the video processing equipment and synchronized with the
video signal; and

~~outputting the audio signal to the external audio device.~~

18. (Currently amended) The method according to claim 16, wherein the
audio signal that is synchronized with the video signal is ~~an audio signal delayed~~
~~corresponding according~~ to a video signal processing path.

REMARKS

Applicant has studied the Office Action dated November 15, 2010. Claims 1-18 are pending. Claims 1, 4, 6-10 and 12-18 have been amended. Claims 1, 6-10 and 16 are independent claims. No new matter has been added as the amendments have support in the specification as originally filed.

It is submitted that the application, as amended, is in condition for allowance. Reconsideration and reexamination are respectfully requested.

Amendments to the Claims

Claims 4, 12-15, 17 and 18 have been amended to correct grammatical errors or to more clearly disclose the invention. It is respectfully submitted that the amendments have support in the application as originally filed and are not related to patentability.

§ 102 Rejections

Claims 6, 7 and 16-18 were rejected under 35 U.S.C. § 102(e) as being anticipated by Tanaka (U.S. Pat. No. 7,054,544). Applicant respectfully traverses the rejection.

It is noted that a proper rejection for anticipation under § 102 requires complete identity of invention. The claimed invention, including each element thereof as recited in the claims, must be disclosed or embodied, either expressly or inherently, in a single reference. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991); Standard Havens Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1369, 21 U.S.P.Q.2d 1321, 1328 (Fed. Cir. 1991).

It is noted that the present invention is directed to the disadvantages of “a system where an audio signal is outputted to an external audio device using a monitor output port of a digital TV and a video signal is outputted to a display device of the digital TV” such that “the audio and video are not synchronized because of the time difference between the video output and the audio output of the external audio device” and, specifically, to disadvantages of a solution to this problem where “providing an audio delay function in an audio device has been proposed to delay input audio signal

processing for a certain period of time so that the audio signal can be synchronized with the video signal outputted to a display device of a digital TV” since “this method is also problematic in that it is difficult to set an exact period of time during which the audio processing is delayed for the synchronization with the video ... because the difference in time between video signal processing and audio signal processing is varied depending on digital TVs, a period of time for delay is also varied depending on audio devices, and the time difference of the output exists between the digital TVs and the audio devices.” See application as originally filed at paragraphs [0008] and [0009].

The solution provided by the present invention is based on providing a “first video path” for output of “a video signal” to a “display ... of the video processing equipment,” providing a “second video path” that “bypasses a video signal to the monitor output port,” providing a “first audio path” to a “TV speaker,” providing a “second audio path” that “bypasses an audio signal” and a providing a “third audio path” from “an input port of the TV speaker” where the “third audio path” and the “second audio path” are “selectively connected to the audio output port” such that “the second audio path” is selected if “an audio/video device is connected as an external device” and “the third audio path” is selected if “just an audio device is connected as an external device.” See application as originally filed at paragraphs [0030] to [0050] and FIGS. 3 and 4.

It is noted that independent claim 6 has been amended with this paper to better disclose the invention by reciting the output selecting unit selects a first audio signal that bypasses the audio signal that is input to the audio signal processing unit as the audio signal that is output to the external device or a selects second audio signal output from the audio signal processing unit as the audio signal that is output to the external device. It is further noted that independent claims 7 and 16 have been amended with this paper to recite similar limitations. It is respectfully submitted that Tanaka fails to disclose this limitation.

It is noted that all the embodiments disclosed in Tanaka are directed to generating “silent data of a size corresponding to the size of audio data which is obtained by decoding the coded audio data outputted to the external audio decoding device” where the “internal audio output means plays back or processes the silent data

which are generated by the audio processing means” and “maintaining the synchronization [of the video data] with the audio data playback of the external audio decoding device based on the amount of the silent data which are played back or processed by the internal audio output means” by executing an “adjustment of the synchronization between the audio data playback of the external audio decoding device and the video data playback of the video data playback means” or using a “frame drop operation” or suspending “operation of the video data playback means.” See Tanaka at C. 3, ll. 16, to C. 7, line 60. It is respectfully submitted that a thorough review of Tanaka fails to identify any disclosure that can be asserted as analogous to selecting a first audio signal that bypasses the audio signal that is input to the audio signal processing unit as the audio signal that is output to the external device or selecting a second audio signal output from the audio signal processing unit as the audio signal that is output to the external device, as recited in independent claims 6, 7 and 16. It is further respectfully submitted that the Tanaka invention requires repeated adjustments of the synchronization between audio data played back by an external device and video data played back in the internal device and these adjustments are not necessary in the present invention disclosed in independent claims 6, 7 and 16.

It is respectfully asserted that independent claims 6, 7 and 16 are allowable over the cited reference. It is further respectfully asserted that claims 17 and 18 also are allowable over the cited reference at least by virtue of their dependence from allowable independent claim 16.

§ 103 Rejections

Claims 1-5 and 8-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Maehara et al. (“Maehara” U.S. Pub. No. 2005/0147129). Applicant respectfully traverses the rejections.

It is noted that the Federal Circuit has provided that an Examiner must establish a case of prima facie obviousness. Otherwise the rejection is incorrect and must be overturned. As the court recently stated in In re Rijkaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993):

“In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. ‘A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.’ If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned.” (citations omitted.)

It is noted that independent claims 1 and 8-10 have been amended with this paper to recite limitations similar to those recited in independent claims 6, 7 and 16. It is further noted that the Examiner, at pg. 4 of the Office Action with regard to independent claims 8 and 9 and at pg. 5 of the Office Action with regard to independent claims 1 and 10, again relies on Tanaka and only cites Maehara for disclosing “according to a kind of the external device.” It is respectfully submitted that Maehara fails to cure the deficiency of the Tanaka with regard to selecting a first audio signal that bypasses the audio signal that is input to the audio signal processing unit as the audio signal that is output to the external device or selecting a second audio signal output from the audio signal processing unit as the audio signal that is output to the external device, as recited in independent claims 6, 7 and 16 and also recited in independent claims 1 and 8-10.

Therefore, it is respectfully asserted that independent claims 1 and 8-10 are allowable over the asserted combination of references. It is further respectfully asserted that claims 2-5 and 11-15 also are allowable over the cited combination of references at least by virtue of their dependence from an allowable independent claim.

CONCLUSION

In view of the above remarks, Applicant submits that claims 1-18 of the present application are in condition for allowance. Reexamination and reconsideration of the application, as originally filed, are requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

LEE, HONG, DEGERMAN, KANG & WAIMEY

Date: March 15, 2011

By: /Richard C. Salfelder/
Richard C. Salfelder
Registration No. 51,127
Attorney for Applicant(s)

Customer No. 035884