Appeal decision

Appeal No. 2015- 13068

Netherlands
Appellant KONINKLIJKE PHILIPS NV

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The case of appeal against the examiner's decision of refusal of Japanese Patent Application No. 2013-155463, entitled "Method of recording information on multi-layer disk and recording device" (the application published on November 21, 2013, Japanese Unexamined Patent Application Publication No. 2013-235647) has resulted in the following appeal decision.

Conclusion

The appeal of the case was groundless.

Reason

1. History of the procedures

The present application is a divisional application filed on July 26, 2013 from Japanese Patent Application No. 2011-198065 filed on September 12, 2011, which is a divisional application from Japanese Patent Application No. 2006-530990 filed on October 12, 2004 as an international filing date (priority claim under the Paris Convention, Acceptance of International Bureau, October 13, 2003, European Patent Office (EP)). The history of the procedures is as follows.

Written statement	: August 08, 2013
Notice of reasons for refusal	: March 10, 2014 (Draft date)
Written opinion	: October 03, 2014
Amendment	: October 03, 2014
The examiner's decision of refusal	: March 04, 2015 (Draft date)
Appeal against the examiner's decision of refusal	: July 09, 2015
Supplement of reason	: August 20, 2015

2. The Invention

The invention relating to Claims 1-5 of the present application is acknowledged as specified by the matters described in Claims 1-5 according to the scope of claims for

patent amended by the amendment dated October 03, 2014. The invention relating to Claim 1 (hereinafter, referred to as the "Invention") is as follows.

"[Claim 1]

Method of recording information on a multi-layer optical record carrier, said record carrier comprising at least two information layers and each of said information layers comprising an inner control information area, an user information area, and an outer control information area, the method comprising

- a first recording step of writing information patterns representing user information in the user information area of a first of said at least two information layers,
- a second recording step of writing information patterns representing user information in the user information area of a second of said at least two information layers, and
- a finalization step of writing information patterns representing control information in the inner control information areas and the outer control information areas of said first and second information layers,

characterized in that the method further comprises an initialization step of writing information patterns representing at least one ECC block of control information in at least one of the inner control information area and the outer control area of the second information layer, and in that the initialization step is located in time before the second recording step, wherein the information patterns representing the control information are written adjacent to the user information area of the second information layer, and have dummy data consisting of all zeroes."

3. Description and other materials of the prior application

In the description, the scope of claims for patent, and drawings (hereinafter, referred to as "the description and other materials of the prior application") initially attached to the application of Japanese Patent Application No. 2003-294261 (the application filed on August 18, 2003, Japanese Unexamined Patent Application Publication No. 2005-63589) which was cited for reasons for refusal stated in the examiner's decision, applied for before the date of priority claim of the present application, and disclosed after the date of priority claim of the present application, the following is described with drawings. (Underlines are added by the body.)

(1) "[0001]

The present invention relates to a recording apparatus and a recording method for recording information onto a plurality of information recording layers. "

(2) "[0011]

Accordingly, it is an object of the present invention to provide a recording apparatus that is free from malfunction when layer shifting is performed in the middle of recording user data in a multi-layer recording medium in use."

(3) "[0017]

1. Area structure of recording layer

According to this embodiment, A DVD (Digital Versatile Disk) is described here as a large-capacity recording medium. A disk drive apparatus to be discussed later

records data on and/or replays data from the disk as the DVD.

The recording DVD disks are categorized into a plurality of types, namely, DVD+R, DVD-R, DVD-RW, DVD-RW, DVD-RAM, etc. Here, DVD+R as a write-once type medium and DVD+RW as a rewritable medium are discussed below."

(4) "[0020]

The information zone mainly contains the following five areas:

[1] Inner drive area

[2] Lead-in zone (also referred to as a lead-in area)

[3] Data zone (also referred to as a data area)

[4] Lead-out zone (also referred to as a lead-out area)

[5] Outer drive area"

(5) "[0022]

A physical sector number (PSN) is imparted as information indicating absolute position on the disk.

As shown, the PSN increases in a radial direction from an inner circle to an outer circle. In the case of the DVD+R disk and the DVD+RW disk, PSN=2FFFFh (h means a hexadecimal representation) is the end of the lead-in zone, and the data zone starts with PSN=30000h.

The user data is written onto the data zone fundamentally, and the management information is written onto the lead-in zone. Dummy data is written onto the lead-out zone to maintain compatibility with a replay only disk. In the DVD+RW disk, the management information having the same content as the lead-in zone may be written onto the lead-out zone."

(6) "[0027]

The management information written on the lead-in zone in the DVD+R disk and the DVD+RW disk has a data structure shown in FIG. 2.

As shown in FIG. 2, address positions are listed at a first PSN and the size of data is represented in the number of sectors in the structure of the management information in the lead-in zone.

Arranged in the lead-in zone except a reserved (undefined) area are an initial zone, as shown, an inner disk test zone, an inner drive test zone layer0, a guard zone 1, an inner disk identification zone, a reference code zone, a buffer zone 1, a control data zone, and a buffer zone 2."

(7) "[0031]

In the parallel track path shown in FIG. 4(a), the lead-in area, the data area, and the lead-out area are formed from an inner circle to an outer circle in each of layer 0 and layer 1.

The recording of the data starts with Start PSN(=30000h) in the inner circle of layer 0, and continues to End PSN(0) at the end of the data area. In succession, the recording is performed from Start PSN(=30000h) in the inner circle in layer 1 to End PSN(l) in the outer circle in layer 1.

As shown in FIG. 4(b), the logical block addresses LBA are successively assigned in a direction from the inner circle to the outer circle in layer 0 and in a direction from the inner circle to the outer circle in layer 1.

[0032]

FIGS.5 illustrate an opposite track path. In a disk having the opposite track path, the recording operation is performed from an inner circle in layer 0 to the end of layer 0, and is then performed from an outer circle to an inner circle in layer 1.

As shown in FIG.5(a), in the opposite track path, the lead-in area, the data area, and the middle area are formed from the inner circle to the outer circle in layer 0. Furthermore, the middle area, the data area, and the lead-out area are formed from the outer circle to the inner circle in layer 1.

Data recording starts with Start PSN(=30000h) in the inner circle in layer 0 and continues to End PSN(0) as the end of data area in layer 0. In succession, data recording is performed from the outer circle (inverted End PSN(0)) of the data area to the End PSN(1) in the inner circle in layer 1.

As shown in FIG. 5(b), the logical block addresses LBA are assigned to the circles from the inner circle to the outer circle in layer 0. In layer 1, the assignment direction is turned so that the logical block addresses are then successively assigned to circles from the outer circle to the inner circle in layer 1.

[0033]

The parallel track path and the opposite track path are different in the physical arrangement method (order) of data.

In the opposite track path, a middle area is attached to a circle outside the turning of the address assignment direction between the layers. This is based on the following reason. In the case of the opposite track path, the lead-in area is formed in layer 0, and the lead-out area is formed in layer 1. The lead-in area and the lead-out area are not formed in a circle outside the data area. The replay only apparatus reads pits recorded in the disk surface, and is unable to read data in a pit free area where no servo functions. For this reason, a guard area is required. Because of this necessity, the middle area is formed in the outer circle. For example, dummy data is recorded on the middle area, serving the same purpose as the lead-out area."

(8) "[0047]

4. Example I of user data recording processing

The recording process of the user data on the two-layer disk in the disk drive apparatus is described below.

As previously discussed, the close (finalize) process is performed on the disk 1 subsequent to the recording of the user data, thereby appropriately forming the lead-in area, the lead-out area, and the middle area. Replay compatibility is thus assured.

In a problem to be solved, When the user data is recorded on the two-layer disk without performing the close (finalize) process, appropriate replaying of layer 1 is difficult as previously discussed.

In the recording process of the preferred embodiment of the present invention, the replay operation is allowed to be properly performed even prior to the close process even if recording layer shifting is performed in the middle of the recording of the user data.

[0048]

FIG. 7 illustrates the process of the controller 12 that records the user data. The process of the controller 12 is discussed below with reference to FIG. 8. In FIG. 8, the disk 1 is an opposite track path type in this case.

As shown in FIG. 7, the controller 12 starts the user data recording in step F101.

Before starting the user data recording, dummy data is recorded to form a buffer region (guard block) having a predetermined size. In succession, the user data is recorded.

After starting the recording of the user data, in step F102, the controller 12 determines whether or not to perform recording layer shifting. The controller 12 performs layer shifting to layer 1 when the user data recording is in progress, and reaches the maximum address that can record user data in layer 0, after the user data writing starts in layer 0. Even if the maximum address is not yet reached, shifting to layer 1 may be performed in response to an instruction from the application for executing the recording process, or an instruction from the host apparatus, or in accordance with a predetermined program.

In step F103, the controller 12 monitors whether the writing of the user data is completed.

If the controller 12 determines in step F103 that the writing operation is completed without layer shifting after the user data writing starts at an address of layer 0, the controller 12 performs a recording end process in step F108. This operation coincides with the end of the user data recording in layer 0 in response to an instruction from the host apparatus. A similar operation is also performed in the case when the user data recording starts at an address in layer 1 and the recording of the user data is determined in step F103 to be complete. This recording end process in layer 1 is performed in response to an instruction from the host apparatus.

[0049]

When layer shifting to layer 1 is performed in step F102 in the middle of the user data recording in layer 0, the algorithm proceeds to step F104. The user data recording operation is suspended temporarily. In step F105, the controller 12 determines whether a guard block is formed in the destination layer 1. For example, the focus jumping is performed to layer 1, an area immediately ahead of the location where the user data recording resumes is replayed, and the controller 12 determines whether the area has already undergone data recording.

At this point of time, no guard block is typically formed. The algorithm proceeds to step F106 to perform a guard block formation process. For example, to form the guard block, the dummy data is recorded in an area immediately ahead of an address in layer 1.

At the moment the recording process of the guard block reaches the address where the user data recording resumes, the controller 12 allows the user data recording to resume at that address in step F107.

The algorithm loops to steps F102 and F103 after the user data recording resumes. In the case of the two-layer disk, no further layer shifting is performed. At the end of the user data, the controller 12 determines in step F103 that the writing of the user data is completed. The controller 12 performs the user data writing end process in step F108.

A disk having three or more layers may be used as will be discussed later. In that

case, layer shifting may be performed in step F102 after a preceding layer shift. Steps F104-F107 may also be performed."

(9) "[0053]

As mentioned above, the guard block GB recorded prior to the recording of the user data in layer 1 constitutes part of the middle area shown in Fig. 5 after the close (finalize) process is performed. "

(10) "[0062]

FIGS. 12 illustrate the parallel track path disk.

As shown in FIG. 12(a), an address Ad21 is a front of a data zone in layer 0, and an address Ad24 is a front of a data zone.

In layer 0, user data DA1-DA7 are recorded within a range of the address Ad21 as the front of the data zone to an address Ad22. After layer shifting to layer 1, the remaining data DA8 is recorded within a range of the front of the data zone (address Ad24) to an address Ad25.

As shown in FIGS. 7 and 9, the guard block GB is recorded in an area (Ad23-Ad24) immediately ahead of address Ad24. In the case of the parallel track path, a circle inner than the front of the data zone becomes a lead-in zone in layer 1. The area (Ad23-Ad24) immediately ahead of the address Ad24 is a buffer zone 2 of FIG. 2.
"

(11) "[0064]

FIGS. 13 illustrate a three-layer opposite track path disk.

As shown in FIG. 13(a), user data DA1-DA16 is recorded. As shown, the user data DA1-DA6 are recorded within a range from an inner circle to an outer circle in layer 0. In succession, data DA7-DA12 are recorded within a range from an outer circle to an inner circle in layer 1. Furthermore, data DA13-DA16 are recorded within a range from an inner circle to an outer circle in layer 2.

As shown in FIGS. 7 and 9, the guard block GB is recorded within a predetermined range in a circle outside the user data DA7 in layer 1, and within a predetermined range in a circle inside the user data DA13 in layer 2.

As shown in FIG. 13(b), user data DA1-DA7 are recorded with the recording operation starting at the midway point of layer 1. In this case, data DA1-DA4 are recorded within a range from an outer circle to an inner circle in layer 1. After layer shifting, data DA5-DA7 are recorded within a range from an inner circle to an outer circle in layer 2.

As shown in FIGS. 7 and 9, the guard block GB is recorded within a predetermined range in a circle inner than the user data DA5 in layer 2.

If layer shifting occurs in the middle of the recording of the user data in the three-layer disk, the guard block GB is formed in an area immediately ahead of the record start position of the user data in the destination layer.

The above-referenced process is applicable to the three-layer, parallel track path disk, and four or more layer disks (of opposite track path/parallel track path).

[0065]

As mentioned above, the process of the preferred embodiment of the present

invention for the formation of the guard block GB has been discussed. A variety of modifications of the present invention is contemplated.

The DVD+R disk and the DVD+RW disk as the two-layer disk have been discussed. The guard block GB may be formed in response to the layer shifting in the course of the user data recording in a DVD-R disk, a DVD-RW, and DVD-RAM, each having a plurality layers.

The present invention is applicable to not only the DVD disk, but also other type of disks including a CD disk, and a blue-ray disk. Furthermore, the present invention is applicable to media having a plurality of layers, other than disks."

The above-mentioned indicated matters and the description of the drawings result in the following.

(a) The description and other materials of the prior application describe a recording method for recording information onto a plurality of information recording layers (a disk of DVD system) (the indicated matters (1), (3)).

(b) In the parallel track path, the lead-in area, the data area, and the lead-out area are formed from an inner circle to an outer circle in each of layer 0 and layer 1 (the indicated matter (7)).

(c) In the opposite track path, the lead-in area, the data area, and the middle area are formed from the inner circle to the outer circle in layer 0. Furthermore, the middle area, the data area, and the lead-out area are formed from the outer circle to the inner circle in layer 1 (the indicated matter (7)).

(d) The user data is written onto the data zone, and the management information is written onto the lead-in zone. Dummy data is written onto the lead-out zone to maintain compatibility with a replay only disk (the indicated matters (4), (5)). In the opposite track path, the middle area is formed in the outer circle. For example, dummy data is recorded on the middle area, serving the same purpose as the lead-out area (the indicated matter (7)).

(e) In the disk of the opposite track path, when layer shifting to layer 1 is performed in the middle of the user data recording in layer 0, the user data recording operation is suspended temporarily. To form the guard block, the dummy data is recorded in an area immediately ahead of an address in layer 1. At the moment the recording process of the guard block reaches the address where the user data recording resumes, the controller 12 allows the user data recording to resume at that address (the indicated matter (8)).

(f) the guard block recorded prior to the recording of the user data in layer 1 constitutes part of the middle area after the close (finalize) process is performed (the indicated matter (9)).

(g) In the disk of the parallel track path, the guard block is recorded in a buffer zone 2 of a lead-in area immediately ahead of the front of the data area in layer 1 (the indicated matters (6), (10)).

(h) The close (finalize) process is performed on the disk subsequent to the recording of the user data, thereby appropriately forming the lead-in area, the lead-out area, and the middle area (the indicated matter (8)).

Taking the above-mentioned matters into general consideration, it is acknowledged that the description and other materials of the prior application describe the following invention (hereinafter, referred to as the "Prior invention").

"A recording method corresponding to a disk of DVD system, in which, in the parallel track path, the lead-in area, the data area, and the lead-out area are formed from an inner circle to an outer circle in each of layer 0 and layer 1, and

in the opposite track path, the lead-in area, the data area, and the middle area are formed from the inner circle to the outer circle in layer 0, and the middle area, the data area, and the lead-out area are formed from the outer circle to the inner circle in layer 1, and

the user data is written onto the data area, and the management information is written onto the lead-in area, and dummy data is written onto the lead-out area and the middle area to maintain compatibility with a replay only disk, comprising:

In the disk of the opposite track path, when layer shifting to layer 1 is performed in the middle of the user data recording in layer 0, the user data recording operation is suspended temporarily;

to form the guard block, the dummy data is recorded in an area immediately ahead of an address in layer 1; and

At the moment the recording process of the guard block reaches the address where the user data recording resumes, the controller 12 allows the user data recording to resume at that address,

wherein the guard block recorded prior to the recording of the user data in layer 1 constitutes part of the middle area after the close (finalize) process is performed,

in the disk of the parallel track path, the guard block is recorded in a buffer zone 2 of a lead-in area immediately ahead of the front of the data area in layer 1, and

the close (finalize) process is performed on the disk subsequent to the recording of the user data, thereby appropriately forming the lead-in area, the lead-out area, and the middle area."

4. Comparison

The Invention and the Prior invention are compared.

(1) A method of recording information

In general, most of a control information area is filled with dummy data such as all zeroes, for example. However, in general, a part of the control information area (especially, the lead-in area) is simultaneously filled with control information identifying disks (for example, physical format information, or disk manufacturing information) (the description of the Invention [0006]).

In the Prior invention, in the parallel track path, the lead-in area, the data area, and the lead-out area are formed from an inner circle to an outer circle in each of layer 0 and layer 1, the user data is written onto the data area, the management information is

written onto the lead-in area, and dummy data is written onto the lead-out area so that it can be said that "the lead-in area," "the data area," and "the lead-out area" of the Prior invention are respectively "the inner control information area," "the user information area," and "the outer control information area."

In the Prior invention, in the opposite track path, the lead-in area, the data area, and the middle area are formed from the inner circle to the outer circle in layer 0, and the middle area, the data area, and the lead-out area are formed from the outer circle to the inner circle in layer 1. The user data is written onto the data area, the management information is written onto the lead-in area, and dummy data is written onto the lead-out area and the middle area, so that it can be said that "the lead-in area" and "the lead-out area," "the data area," and "the middle area" of the Prior invention are respectively "the inner control information area," "the user information area," and "the outer control information area."

Therefore, the Invention and the Prior invention are common in the point "Method of recording information on a multi-layer optical record carrier, said record carrier comprising at least two information layers and each of said information layers comprising an inner control information area, an user information area, and an outer control information area."

(2) A first recording step

The Prior invention executes the recording of the user data in the layer 0, so that the Invention and the Prior invention are common in terms of including "a first recording step of writing information patterns representing user information in the user information area of a first of said at least two information layers."

(3) A second recording step

The Prior invention, when layer shifting to layer 1 is performed in the middle of the user data recording in layer 0, the user data recording operation is suspended temporarily, and the user data recording resumes from that address in layer 1, so that the Invention and the Prior invention are common in terms of including "a second recording step of writing information patterns representing user information in the user information area of a second of said at least two information layers."

(4) A finalization step

In the Prior invention, to the disk, the close (finalize) process is performed on the disk subsequent to the recording of the user data, thereby appropriately forming the lead-in area, the lead-out area, and the middle area, so that the Invention and the Prior invention are common in terms of including "a finalization step of writing information patterns representing control information in the inner control information areas and the outer control information areas of said first and second information layers."

(5) An initialization step

In the Prior invention, to form the guard block, the dummy data is recorded in an area immediately ahead of an address in layer 1. In the disk of the opposite track path, the guard block recorded prior to the recording of the user data in layer 1 constitutes part of the middle area after the close (finalize) process is performed. In the disk of the parallel track path, the guard block is recorded in a buffer zone 2 of a lead-in area immediately

ahead of the front of the data area in layer 1.

Therefore, the Invention and the Prior invention are common at the point that both "characterized in that the method further comprises an initialization step of writing information patterns representing control information in at least one of the inner control information area and the outer control area of the second information layer, and in that the initialization step is located in time before the second recording step, wherein the information patterns representing the control information are written adjacent to the user information area of the second information layer."

However, the Invention and the Prior invention are different in the points that, concerning "writing information patterns representing control information" in an initialization step in the Invention, those are information patterns representing "at least one ECC block" of control information, whereas, in the Prior invention, those are not explicitly specified, and that concerning "dummy data of writing information patterns representing control information" in an initialization step in the Invention, those are dummy data "consisting of all zeroes," whereas, in the Prior invention, those are not explicitly specified.

Then, the Invention and the cited invention correspond in the following points.

<Corresponding features>

"
Method of recording information on a multi-layer optical record carrier, said record carrier comprising at least two information layers and each of said information layers comprising an inner control information area, an user information area, and an outer control information area, the method comprising
- a first recording step of writing information patterns representing user information in the user information area of a first of said at least two information layers,
- a second recording step of writing information patterns representing user information in the user information area of a second of said at least two information layers, and
- a finalization step of writing information patterns representing control information in the inner control information areas and the outer control information areas of said first and second information layers,

characterized in that the method further comprises an initialization step of writing information patterns representing control information in at least one of the inner control information area and the outer control area of the second information layer, and in that the initialization step is located in time before the second recording step, wherein the information patterns representing the control information are written adjacent to the user information area of the second information layer, and have dummy data."

Meanwhile, they differ in the following points.

<Prima facie different feature>
(1) Concerning "writing information patterns representing control information" in an initialization step in the Invention, those are information patterns representing "at least one ECC block of" control information, whereas, in the Prior invention, those are not explicitly specified.

(2) Concerning "dummy data of writing information patterns representing control information" in an initialization step in the Invention, those are dummy data "consisting of all zeroes," whereas, in the Prior invention, those are not explicitly specified.

5. Judgment

The prima facie different features will now be discussed below.

Prima facie different feature (1)

In 15. Outline of Chapter 4 Data format of JIS X 6241, which is a standard of DVD - Read-only disk (October 31, 1997, cited in the reasons for refusal stated in the examiner's decision), or ECMA-267 (December, 1997, cited in the reasons for refusal stated in the examiner's decision), it is described that main data are successively converted into a data frame, a scrambled frame, an ECC block, a recording frame, and a physical sector, to perform formatting, before being recorded in a disk. In 26.4 Buffer zone 2 of 26.Lead-in zone in Chapter 5 Format of information zone of the same, it is described that the zone is configured by 512 physical sectors made from 32 (Note by the body: "30" of JIS X 6241 is incorrect, and "32" of ECMA-267 is correct) ECC blocks, and the main data of the data frame finally recorded as the physical sector in the zone are set to (00). In 27. Middle zone of the same, it is described that the main data of the data frame to be finally recorded as the physical sector in the middle zone are set to (00).

Furthermore, in 15. Outline of Chapter 4 Data format of JIS X 6245 which is a standard of DVD-Recordable-Disk (December 31, 1999) or ECMA-279 (cited in the reasons for refusal stated in the examiner's decision in December, 1998), or 25. 1. 4. Buffer zone 2 of 25. 1 Lead-in zone in Chapter 5 Format of information zone of the same, there is a similar description.

Then, the Prior invention is "a recording method corresponding to a disk of DVD system," and hence, is compliant with each standard mentioned above. In the disk of the opposite track path, the guard block recorded prior to the recording of the user data in layer 1 constitutes part of the middle area after the close (finalize) process is performed, and in the disk of the parallel track path, the guard block is recorded in a buffer zone 2 of a lead-in area immediately ahead of the front of the data area in layer 1, so that "the guard block" of the Prior invention is made from the ECC block.

In 23. Linking system of Chapter 4 Data format of JIS X 6245 or ECMA-279, it is described that the recording starts at a byte between 82nd byte-87th byte of the second synchronous frame of the first physical sector of the ECC block, and ends at the 86th byte of the second synchronous frame of the first physical sector of the ECC block. Namely, data are recorded in ECC block units.

Therefore, "the guard block" of the Prior invention is made from at least one ECC block.

Consequently, the prima facie different feature (1) is not a substantial different feature.

Prima facie different feature (2)

As mentioned above, in 26.4 Buffer zone 2 of 26. Lead-in zone in Chapter 5 Format of information zone of JIS X 6241 or ECMA-267, it is described that the zone is configured by 512 physical sectors made from 32ECC blocks, and the main data of the

data frame finally recorded as the physical sector in the zone is set to (00), and in 27. Middle zone of the same, it is described that the main data of the data frame to be finally recorded as the physical sector in the middle zone are set to (00).

There are similar descriptions in 25. 1. 4. Buffer zone 2 of 25. 1 Lead-in zone in Chapter 5 Format of information zone of JIS X 6245 or ECMA-279.

Therefore, "the dummy data" of "the guard block" of the Prior inventions consisting of all zeroes.

Consequently, the prima facie different feature (2) is also not a substantial different feature.

Therefore, the Invention is substantially identical to the Prior invention; furthermore, the inventor of the application is not same as a person who made the invention relating to the patent application before the date of the priority claim, and also, at the time of the application, the applicant is not the same as the applicant of the parent application, so that the appellant should not be granted a patent for it under the provisions of Article 29(2) of the Patent Act.

6. Closing

As described above, the appellant should not be granted a patent for the invention relating to Claim 1 of the present application, in accordance with the provisions of Article 29(2) of the Patent Act.

Therefore, the present application should be rejected without mentioning other claims.

Therefore, the appeal decision shall be made as described in the conclusion.

April 19, 2016

Chief administrative judge: MORIKAWA, Yukitoshi
Administrative judge: SEKIYA, Ryuichi
Administrative judge: INOUE, Shinichi