Trial decision

Invalidation No. 2016-800135

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The case of trial regarding the invalidation of Japanese Patent No. 4157412, entitled "MAGNETIC TAPE AND ITS MANUFACTURING METHOD, SERVO WRITER, AND METHOD AND DEVICE FOR DISCRIMINATING SERVO BAND" between the parties above has resulted in the following trial decision.

Conclusion

The trial of the case was groundless.

The costs in connection with the trial shall be borne by the demandant.

Reasons

No. 1 The trial of the case

1. The Patent

A patent application pertaining to Patent No. 4157412 of the case was filed on

April 15, 2003, and the establishment of patent right for the invention was registered on July 18, 2008.

2. Object of the demand

The demandant demands the trial decision, "The patent for the inventions according to Claims 1, 6, and 8 of Patent No. 4157412 shall be invalidated. The costs in connection with the trial shall be borne by the demandee".

3. Object of the reply

The demandee demands the trial decision, "The demand for trial of the case was groundless. The costs in connection with the trial shall be borne by the demandant".

No. 2 History of the procedures

The history of the procedures is as follows.

Demand for invalidation trial	: December 9, 2016
Written amendment	: January 5, 2017
Description of evidence	: January 5, 2017
Written reply	: March 21, 2017
Written statement	: April 11, 2017
Notification of matters to be examined (drafting date)	: May 15, 2017
Oral proceedings statement brief (Demandant)	: July 10, 2017
Oral proceedings statement brief (Demandee)	: July 10, 2017
Oral proceedings	: July 24, 2017
Written statement (Demandant)	: July 31, 2017
Written statement (Demandant)	: July 31, 2017
Written statement (Demandee)	: July 31, 2017
Description of evidence	: July 31, 2017
Written amendment	: August 10, 2017
Written statement (Demandee)	: August 10, 2017

No. 3 Allegations of the parties

1. Outline of the demandant's allegation

(1) The invention according to Claim 1 of the Patent could have been easily made by a person skilled in the art on the basis of A. the inventions described in Evidences A No. 1 and No. 2, B. the inventions described in Evidences A No. 3, No. 2, and No. 4, or C. the invention described in Evidence A No. 2, the invention described in Evidence A No. 4, and the well-known arts, and the demandee should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act. Therefore, the patent should be invalidated under the provisions of Article 123(1)(ii) of the Patent Act.

The inventions according to Claims 6 and 8 of the Patent could have been easily

made by a person skilled in the art on the basis of above technology known to the public and well-known arts, and the invention described in Evidence A No. 5, and the demandee should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act. Therefore, the patent should be invalidated under the provisions of Article 123(1)(ii) of the Patent Act.

(2) The evidences submitted by the demandant are as follows.
Evidence A No. 1: ISO/IEC 22050: 2002 (E)
Evidence A No. 2: National Publication of International Patent Application No. 2002-502533
Evidence A No. 3: Japanese Unexamined Patent Application Publication No. 2002-74631
Evidence A No. 4: Japanese Unexamined Patent Application Publication No. 2001-67847
Evidence A No. 5: Japanese Unexamined Patent Application Publication No. H10-334435
Evidence A No. 6: Japanese Unexamined Patent Application Publication No. H8-30942
Evidence A No. 7: Japanese Unexamined Patent Application Publication No. H11-273040
Evidence A No. 8: Japanese Unexamined Patent Application Publication No. H11-288568
Evidence A No. 9: Japanese Unexamined Patent Application Publication No. 2000-36112
Evidence A No. 10: Japanese Unexamined Patent Application Publication No. 2000-48431
Evidence A No. 11: Japanese Unexamined Patent Application Publication No. 2001-319453
Evidence A No. 12 Japanese Unexamined Patent Application Publication No. 2002-269711
Evidence A No. 13: JIS X 6175: 2006
Evidence A No. 14: Specification of U.S. Patent No. 6239939
(The above evidences were attached to the written demand for trial.)

2. Outline of the demandee's allegation

(1) Even if the matters described in other evidences are combined with a main cited invention, which is the invention described in Evidence A No. 1, Evidence A No. 2, or Evidence A No. 3, a person skilled in the art cannot achieve the invention according to Claim 1 of the Patent.

The invention according to Claim 1 of the Patent cannot easily be conceived from the inventions described in Evidences A No. 1 and No. 2, the inventions described in Evidence A No. 3, Evidence A No. 2, and Evidence A No. 4, and the inventions described in Evidence A No. 2 and Evidence A No. 4 and the well-known art.

As Claims 6 and 8 of the Patent are dependent from Claim 1, as with the invention according to Claim 1 of the Patent, the inventions according to Claims 6 and 8 of the Patent cannot easily be conceived even if the inventions described in Evidence A No. 1 to No. 4 and the well-known art are combined with the inventions described in

Evidence A No. 5.

(2) The evidences submitted by the demandee are as follows.
Evidence B No. 1: "Current & Future Recording Technology – Data Storage Solutions for Government Operations" Agenda
Evidence B No. 2: Tape Technology 2000
(The above evidences were attached to the written statement (demandee) as of July 31, 2017.)

No. 4 The Patent Invention

The inventions according to Claims 1, 6, and 8 of the Patent (hereinafter referred to as "Patent Invention 1", "Patent Invention 6", and "Patent Invention 8"), which are specified by the matters described in Claims 1, 6, and 8 of the scope of claims, are as follows.

"[Claim 1]
A magnetic tape comprising a plurality of servo bands on which servo signals are written for tracking control of a magnetic head,
wherein data is embedded in each servo signal written on each servo band, the data being for specifying one of the servo bands where the servo signal is located,
each servo signal consists of patterns, each of which comprises non-parallel stripes, and the data is embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction for each servo band.
[Claim 6]
A method of manufacturing a magnetic tape of Claim 1, comprising:
a first step of encoding data for specifying a servo band;
a second step of converting the data encoded in the first step into a recording pulse current; and
a third step of supplying the recording pulse current to the servo signal write head, and writing on a predetermined servo band of the magnetic tape a servo signal with a predetermined encoded data embedded therein.
[Claim 8]
A servo writer used for manufacturing a magnetic tape of Claim 1, comprising:
a magnetic tape running mechanism for taking up with a take-up reel the magnetic tape that is fed out from a supply reel;
a servo signal write head for writing a servo signal on a servo band of the magnetic tape in contact with the running magnetic tape;
a controller for encoding data for specifying a servo band; and
a pulse generation circuit for converting the encoded data output from the controller into a recording pulse current, and for supplying the recording pulse current to a coil in the servo signal write head."

No. 5 Regarding Patent Invention 1 (Evidence A No. 1 is a main cited document)

1. Evidences A No. 1 and No. 2

Evidence A No. 1 (ISO/IEC 22050: 2002 (E)) (Translation: Evidence A No. 13 (JIS X 6175: 2006)) describes the following matters together with figures regarding "Information technology - Data interchange on 12.7 mm, 384-track magnetic tape cartridges - Ultrium-1 format". (The underlines were added by the body.)

(1) "1 Scope
This International Standard specifies the physical and magnetic characteristics of magnetic tape cartridges, using magnetic tape 12.65 mm wide so as provide physical interchange of such cartridges between drives. It also specifies the quality of the recorded signals, the recording method, and the recorded format, thereby allowing data interchange between drives by means of such cartridges. The format supports variable length Logical Records, high speed search, and the use of a registered algorithm for data compression."

(2) "11.1 General
There shall be five servo bands pre-recorded on the tape. Multiple servo locations are defined within each servo band. The servo locations shall be used for track-following while the cartridge is being operated in the cartridge drive. The servo bands shall be written prior to the cartridge being usable for data storage and retrieval. All servo locations shall be located at specific distances from the Tape Reference Edge.
(omitted)
Each servo band shall contain servo frames consisting of 18 servo stripes. Servo frames are encoded as LPOS words to provide longitudinal position down the length of the tape. Longitudinal shifts of servo frames among the servo bands uniquely identify the servo bands. The details of the servo bands are shown in Figures 25, 26, and 28."

(3) "11.2 Servo bands
The five servo bands shall be numbered 0 to 4. Data tracks shall be recorded between pairs of servo bands: see Figure 25. Servo bands comprise recorded servo stripes."

(4) "11.2.2 Servo bursts
Servo bursts are groups of servo stripes. There are four types of servo burst: A burst, B burst, C burst, and D burst. There shall be 5 stripes each in A and B bursts. There shall be 4 stripes each in C and D bursts. When averaged over the length of one LPOS word, the first transition of the servo stripes within the same servo burst shall be spaced 5.00 μm ± 0.05 μm apart except as noted in servo frame encoding, 11.3."

(5) "11.2.3 Servo frames
A servo frame shall comprise an A burst, a B burst, a C burst, and a D burst. A servo subframe 1 shall comprise an A burst and a B burst. A servo subframe 2 shall comprise a C burst and a D burst. Tolerances on servo frame dimensions are to support interchange and as such include the effects of servo writing and tape dimensional stability. See Figure 26."

(6) "11.3 Servo frame encoding
Information shall be encoded into servo frames to indicate absolute position along the length of the tape, to include manufacturer's data, and to enable identification of servo

bands."

(7) "11.3.1 Method of encoding position and manufacturer's data
Information shall be encoded into servo frames by shifting the relative positioning of the stripes in servo subframe 1; see Figure 28. Each servo frame shall encode one bit, which is either a ONE or a ZERO."

(8) "11.3.2 LPOS word construction
The absolute location down the length of the tape and manufacturers' data shall be recorded within LPOS words. Each LPOS word shall comprise 36 servo frames (7.2 mm). LPOS words shall be recorded continuously along the length of the tape. The layout of the LPOS words is shown below. The LPOS value shall be determined by six LPOS symbols of the LPOS word from the base 14 alphabet shown in Figure 29 and Table 3. THe LPOS value shall take the value: LPOS value=L0+L1×14+L2×142+L3×143+L4×144+L5×145"

(9) "11.3.4 Cross tape identification
The identity of servo band n may be determined by the relative positions down the tape of frames in servo bands n and n+1, reading with the top and bottom servo elements, respectively. The relative shift of the n+1 servo with respect to the n servo when the tape is moving in the forward direction (BOT to EOT) shall be as listed in Table 5."

The above indicated matters and the description of the figures result in the following.

(a) Evidence A No. 1 describes a "magnetic tape" (Indicated matter (1)).

(b) There shall be five servo bands pre-recorded on the tape. Multiple servo locations are defined within each servo band. The servo locations shall be used for track following while the cartridge is being operated in the cartridge drive. Each servo band shall contain servo frames consisting of 18 servo stripes. Servo frames are encoded as LPOS words to provide longitudinal position down the length of the tape. Longitudinal shifts of servo frames along the servo bands uniquely identify the servo bands (Indicated matter (2)).

(c) Servo bands comprise recorded servo stripes (Indicated matter (3)).

(d) Servo bursts are groups of servo stripes. There are four types of servo burst: A burst, B burst, C burst, and D burst (Indicated matter (4)).

(e) A servo frame shall comprise an A burst, a B burst, a C burst, and a D burst. A servo subframe 1 shall comprise an A burst and a B burst. A servo subframe 2 shall comprise a C burst and a D burst (Indicated matter (5)).

(f) The inclination of the stripe of A burst and C burst in the tape width direction is opposite to the inclination of the stripe of B burst and D burst in the tape width direction (FIG. 26).

(g) Information shall be encoded into servo frames to indicate absolute position along the length of the tape, to include manufacturer's data, and to enable identification of servo bands (Indicated matter (6)).

(h) Position and manufacturer's data shall be encoded by shifting the relative positioning of the stripes in servo subframe 1 (Indicated matter (7)).

(i) The absolute location down the length of the tape and manufacturers' data shall be recorded within LPOS words (Indicated matter (8)).

(j) The identifications of servo bands are encoded into servo frames (Indicated matter (6)). The identity of servo band n may be determined by the relative positions down the tape of frames in servo bands n and n+1, reading with the top and bottom servo elements, respectively, and the relative shifts of the n+1 servo with respect to the n servo shall be as listed in Table 5 (Indicated matter (9)). Therefore, it can be said that "servo band identification information is encoded as relative shifts of the n+1 servo band with respect to the n servo".

In light of the above, Evidence A No. 1 is recognized as describing the following invention (hereinafter referred to as "Invention A-1").

"A magnetic tape,
wherein there are five servo bands pre-recorded on the tape, and multiple servo locations are defined within each servo band,
the servo locations are used for track following while the cartridge is being operated in the cartridge drive,
each servo band contains servo frames consisting of 18 servo stripes,
servo frames are encoded as LPOS words to provide longitudinal position down the length of the tape,
longitudinal shifts of servo frames along the servo bands uniquely identify the servo bands,
the servo bands comprise recorded servo stripes,
the servo bursts are groups of servo stripes, and there are four types of servo burst: A burst, B burst, C burst, and D burst,
a servo frame comprises an A burst, a B burst, a C burst, and a D burst,
a servo subframe 1 comprises an A burst and a B burst, and a servo subframe 2 comprises a C burst and a D burst,
the inclination of the stripe of A burst and C burst in the tape width direction is opposite to the inclination of the stripe of B burst and D burst in the tape width direction,
information is encoded into servo frames to indicate absolute position along the length of the tape, to include manufacturer's data, and to enable identification of servo bands,
position and manufacturer's data are encoded by shifting the relative positioning of the stripes in servo subframe 1,
the absolute location down the length of the tape and manufacturers' data is recorded within LPOS words, and

servo band identification information is encoded as relative shifts of the n+1 servo with respect to the n servo."

Regarding "encoding servo band identification information", Invention A-1 is configured to "encode servo band identification information as relative shifts of the n+1 servo with respect to the n servo".

Evidence A No. 2 (National Publication of International Patent Application No. 2002-502533) describes the following matters together with figures regarding a "servo tracking recording tape". (The underlines were added by the body.)

(10) "The present invention relates generally to tape servo tracking. More particularly, the present invention pertains to the encoding of servo tracks with information." (p. 8 l. 5-l. 6)

(11) "For the above reasons and other reasons that will be apparent from the description below, alternatives to the configurations such as those described above are needed to overcome difficulties associated therewith. For example, the identification of servo tracks is desired. Further, it is desirable to provide information regarding various tape characteristics, such as tape locations, BOT indicators, load indicators, etc." (p. 11 l. 12-l. 16)

(12) "A servo track recording tape in accordance with the present invention includes a plurality of bands of tracks. The plurality of bands of tracks include at least one data band having a plurality of data tracks and a servo band dedicated for servo information. The servo band includes substantially uniformly written servo information across a predetermined servo carrier width along the length of the tape with at least one encoded track pitch defined therein. Each encoded track pitch has alternating erased and non-erased portions along the length of the tape for defining at least one servo track. The alternating erased and non-erased portions of the at least one encoded track pitch include encoded information representative of at least one characteristic of the tape. The encoded information is provided by varying the length of one or more of the erased portions." (p. 11 l. 21-p. 12 l. 2)

(13) As illustrated in Figure 2 and Figure 3, and as described in U. S. Patent No. 5,229,895 of Schwarz et al., entitled "Multi-Track Servo Recording Head Assembly", the servo track configuration is written bythe head assembly 151. The magnetic tape 60 having the servo band 61 as shown in Figure 3 passes through along a carrier path adjacent to the head assembly 151, and a servo carrier signal 63 is written substantially uniformly across a width of the servo band 61 by a servo carrier write element 154. Portions of the servo carrier signal 63 are erased by a servo erase element 152. The result thereof is the servo track configuration as shown in Figure 3. Periodical erased portions and non-erased portions equal in length are arranged along three paths of a prescribed width of the servo band 61, or servo track pitch. For example, erased portions 62 and non-erased portions 64 along the separated paths, e.g., path 73, are equal in length. The servo track configuration as shown in Figure 3 includes pairs of servo tracks 66, 67, 69 defined in the separated paths by the periodic erased portions

and non-erased portions. Each pair of servo tracks 66, 67, 69 provides servo track information for use in the reverse and forward transport of the tape 60. For example, servo track 70 of pair 66 formed by the erased and non-erased portions is for the forward direction movement of the tape, and servo track 68 is for providing servo information when the tape is moving in the reverse direction. Therefore, if a servo track pair is unambiguously identified, and the reverse and forward direction of transport is known, each track is unambiguously identified." (p. 21 l. 12-p. 22 l. 2)

(14) "A tape 160 including a plurality of servo bands 161, 162, and 163 is shown in Figure 13. The servo bands 161 to 163 are separated by data bands 170. The servo bands 161 to 163 may be encoded using unlike codes such that the servo band itself can be identified uniquely from the other servo bands. For example, servo band 163 is encoded transversely by the servo track configuration 165, as opposed to servo track configuration 166 which is encoded in a different manner than servo track 165 as indicated by the different lengths of erased portions 171 and 173. It should be readily apparent that any number of the erased portions may have varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code. As illustrated in Figure 13, the servo bands 161 and 162 are coded equivalently. However, these two servo bands may also be encoded such that they are uniquely identified relative to one another." (p. 33 l. 25-p. 34 l. 8)

The above indicated matters and the description of the figures result in the following.

(k) Evidence A No. 2 relates to tape servo tracking, more particularly, pertains to the encoding of servo tracks with information (Indicated matter (10)), and describes, for providing identification of servo tracks, and further, information regarding various tape characteristics, such as tape locations, BOT indicators, load indicators, etc. (Indicated matter (11)), that the servo band includes substantially uniformly written servo information across a predetermined servo carrier width along the length of the tape, each encoded track pitch has alternating erased and non-erased portions along the length of the tape, the alternating erased and non-erased portions of the at least one encoded track pitch include encoded information representative of at least one characteristic of the tape, and the encoded information is provided by varying the length of one or more of the erased portions (Indicated matter (12)).

(l) Evidence A No. 2 describes a "magnetic tape" (Indicated matter (13)).

(m) The magnetic tape 60 has the servo band 61. The servo carrier signal 63 is written substantially uniformly across a width of the servo band 61. Portions of the servo carrier signal 63 are erased. The resulting servo track configuration includes pairs of servo tracks 66, 67, 69 defined in the separated paths by the periodic erased portions and non-erased portions. Each pair of servo tracks 66, 67, 69 provides servo track information for use in the reverse and forward transport of the tape 60 (Indicated matter (13)).

(n) A tape 160 includes a plurality of servo bands 161, 162, and 163. The servo bands

161 to 163 are separated by data bands 170. The servo bands 161 to 163 may be encoded using unlike codes such that each servo band itself can be identified uniquely from the other servo bands. The servo band 163 is encoded transversely by the servo track configuration 165, as opposed to servo track configuration 166 which is encoded in a different manner than servo track configuration 165 as indicated by the different lengths of erased portions 171 and 173. Any number of the erased portions may have varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code (Indicated manner (14)).

In light of the above, Evidence A No. 2 is recognized as describing the following invention (hereinafter referred to as "Invention A-2").

"A magnetic tape 160,

having a servo band, wherein the servo carrier signal is written substantially uniformly across a width of the servo band, portions of the servo carrier signal are erased, the resulting servo track configuration includes pairs of servo tracks defined in the separated paths by the periodic erased portions and non-erased portions, each pair of servo tracks provides servo track information for use in the reverse and forward transport of the tape,

including a plurality of servo bands 161, 162, and 163,

the servo bands 161 to 163 being separated by data bands 170,

the servo bands 161 to 163 being encoded using unlike codes such that each servo band itself can be identified uniquely from the other servo bands,

the servo band 163 being encoded transversely by the servo track configuration 165 as opposed to servo track configuration 166,

servo track configuration 166 being encoded in a different manner than servo track configuration 165 as indicated by the different lengths of erased portions 171 and 173, and

any number of the erased portions having varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code."

Invention A-2 is characterized by "any number of the erased portions having varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code".

2. Comparison

Patent Invention 1 and Invention A-1 are compared to each other.

(1) Magnetic tape

Patent Invention 1 and Invention A-1 are identical with each other in the point of "magnetic tape".

(2) A plurality of servo bands

According to the description in [0024] of the patent specification "A predetermined servo signal S1 to S5 for tracking control of the magnetic head is written on each servo band SB1 to SB5", the "servo signal" in Patent Invention 1 is recognized

as indicating "a predetermined signal for tracking control of a magnetic head, written on each servo band".

Invention A-1 describes that "there shall be five servo bands pre-recorded on the tape. Multiple servo locations are defined within each servo band. The servo locations shall be used for track following while the cartridge is being operated in the cartridge drive". Thus, the signal signals written on "each servo band" in Invention A-1 correspond to the "servo signal" in Patent Invention 1.

Therefore, Patent Invention 1 and the Invention A-1 are identical with each other in that "a servo signal for tracking control of a magnetic head is written on each of a plurality of servo bands".

(3) Configuration of servo signal

Since Invention A-1 describes that "Each servo band contains servo frames consisting of 18 servo stripes", "Servo bands comprise recorded servo stripes. The servo bursts are groups of servo stripes. There are four types of servo burst: A burst, B burst, C burst, and D burst. A servo frame comprises an A burst, a B burst, a C burst, and a D burst", and "The inclination of the stripe of A burst and C burst in the tape width direction is opposite to the inclination of the stripe of B burst and D burst in the tape width direction", it can be said that the "servo frames consisting of 18 servo stripes" in Invention A-1 are "a pattern" formed of "non-parallel stripes".

Therefore, Patent Invention 1 and Invention A-1 are identical with each other in that "each servo signal consists of patterns each of which is non-parallel stripes".

(4) Embedding data in servo signal

Invention A-1 describes that "Servo frames are encoded as LPOS words to provide longitudinal position down the length of the tape. Longitudinal shifts of servo frames along the servo bands uniquely identify the servo bands", "A servo subframe 1 comprises an A burst and a B burst. A servo subframe 2 comprises a C burst and a D burst", "Information is encoded into servo frames to indicate absolute position along the length of the tape, to include manufacturer's data, and to enable identification of servo bands. Position and manufacturer's data are encoded by shifting the relative positioning of the stripes in servo subframe 1. The absolute location down the length of the tape and manufacturers' data are recorded within LPOS words. The servo band identification information is encoded as relative shifts of the n+1 servo with respect to the n servo".

Since the "absolute location down the length of the tape and manufacturers' data" are "encoded by shifting the relative positioning of the stripes in servo subframe 1", it can be said that "data is embedded in each servo signal written on each servo band" and "the data is embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction".

Therefore, Patent Invention 1 and Invention A-1 are identical with each other in that "data is embedded in each servo signal written on each servo band" and "the data is embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction".

The "data" in Patent invention 1 is recognized as indicating the "data being for specifying one of the servo bands where the servo signal is located", while the "absolute location down the length of the tape and manufacturers' data" in Invention A-1 is not the

"data being for specifying one of the servo bands where the servo signal is located". The description in Patent Invention 1 "shifting in the tape longitudinal direction for each servo band" is recognized as indicating that the state of shifting in the tape longitudinal direction for each servo band is differentiated for embedding different data in each servo band, while the "absolute location down the length of the tape and manufacturers' data" in Invention A-1 is not different for each servo band, and it cannot be said that the data is shifted in the tape longitudinal direction "for each servo band".

The "servo band identification information" in Invention A-1 is "encoded as relative shifts of the n+1 servo with respect to the n servo", and comparing servo signals on adjacent servo bands is required. Thus, it cannot be said that "data is embedded in each servo signal written on each servo band, the data being for specifying one of the servo bands where the servo signal is located". It cannot be said that "the data is embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction for each servo band".

Therefore, as for the "data embedded in each servo signal written on each servo band", "the data being embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction", there is a difference between Patent Invention 1 in which the data is the "data being for specifying one of the servo bands where the servo signal is located" and
is shifted in the tape longitudinal direction "for each servo band", and Invention A-1 in which the data is not the "data being for specifying one of the servo bands where the servo signal is located" and is not shifted in the tape longitudinal direction "for each servo band".

Therefore, Patent Invention 1 and Invention A-1 are identical with each other in the following points.

<Corresponding features>

"A magnetic tape comprising a plurality of servo bands on which servo signals are written for tracking control of a magnetic head,

wherein data is embedded in each servo signal written on each servo band,

each servo signal consists of patterns each of which comprises non-parallel stripes, and the data is embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction".

The different feature is as follows.

<Different feature>

As for the "data embedded in each servo signal written on each servo band", "the data being embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction", Patent invention 1 describes that the data is the "data being for specifying one of the servo bands where the servo signal is located" and the data is shifted in the tape longitudinal direction "for each servo band", while Invention A-1 describes that the data is not the "data being for specifying one of the servo bands where the servo signal is located" and the data is not

shifted in the tape longitudinal direction "for each servo band".

3. Judgment

The above-mentioned Different feature is examined.

The demandant alleges that Patent Invention 1 could have easily been made by a person skilled in the art on the basis of the inventions described in Evidences A No. 1 and No. 2. We will examine application to Invention A-1 of the technical matter in Invention A-2 (hereinafter referred to as "Technical matter A-2"), "any number of the erased portions having varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code".

Invention A-1, which is configured to encode servo band identification information as relative shifts of the n+1 servo with respect to the n servo, does not present any description or indication about problems in encoding servo band identification information as relative shifts of the n+1 servo band with respect to the n servo band. Thus, it cannot be said that, in Invention A-1, there is a motivation to encode servo band identification information as other than relative shifts of the n+1 servo band with respect to the n servo band.

The servo band in Invention A-1 consists of servo stripes having opposite inclinations in the tape width direction, while in the servo band in Invention A-2, the servo carrier signal is written substantially uniformly across a width of the servo band, and portions of the servo carrier signal are erased. The servo bands of the above inventions are different in format. Thus, Technical matter A-2 cannot be applied to Invention A-1.

In applying Technical matter A-2 to Invention A-1, even if the "length" of the "erased portions" in Technical matter A-2 corresponds to the width of the "servo stripe" in Invention A-1, any number of the servo stripes have varied widths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code, and Patent Invention 1 in which "the data being for specifying one of the servo bands where the servo signal is located" is "embedded in each servo signal by shifting the position of the lines constituting the stripes of each servo signal in the tape longitudinal direction for each servo band", cannot be implemented.

Therefore, it cannot be said that Patent Invention 1 could have been easily made by a person skilled in the art on the basis of Invention A-1 and Technical matter A-2.

The demandant alleges that Evidence A No. 2 discloses "embedding data for specifying one of the servo bands where the servo signal is located, in each servo signal written on each servo band" (Written demand for trial p. 32).

However, Invention A-2 assumes a servo band in which portions of the servo carrier signal written substantially uniformly across a width of the servo band are erased. Invention A-2 does not include the configuration, "the servo bands 161 to 163 may be encoded using unlike codes such that the servo band itself can be identified uniquely from the other servo bands", other than the configuration "any number of the erased

portions having varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code". The disclosure of the technical matter alleged by the demandant cannot be recognized by separating from the "length of the erased portions" for the abstraction.

Thus, the above demandant's allegation cannot be accepted.

No. 6 Regarding Patent Invention 1 (Evidence A No. 3 is a main cited document)

1. Evidences A Nos. 3, 2, and 4

Evidence A No. 3 (Japanese Unexamined Patent Application Publication No. 2002-74631) describes the following matters together with drawings regarding "Servo system stabilization method". (The underlines were added by the body.)

(1) "[0001]
[Field of the Invention] This invention relates to servo control of a tape drive, and especially relates to technologies for stabilizing a servo system of a cartridge type tape drive that uses a tape on which servo tracks and data tracks are arranged in the longitudinal direction."

(2) [0007] The object of the Invention is to stabilize a servo system by removing destabilizing factors due to combination of a tape drive and a tape cartridge.
[0008] Another object of the Invention is to provide a method and apparatus for stabilizing a servo system by resetting a filter coefficient every time a tape cartridge is inserted into a tape drive."

(3) [0019] FIG. 3 illustrates an example of arrangement of data tracks and servo track on a tape 20. In FIG. 3, the white portion is a data track area, and the portion with diagonal lines is a servo track area. As shown in the figure, data tracks and servo tracks are arranged alternately and parallel to each other along a longitudinal direction of the tape 20. Such arrangement of the data tracks and servo tracks is well known, and disclosed, for example, in U.S. Patent No. 5432652 and U.S. Patent No. 5629813."

(4) "[0020] FIG. 4 illustrates an example of servo patterns recorded on the servo tracks. FIG. 4 (A) illustrates two kinds of inverted V-shaped patterns (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately, and (B) illustrates two kinds of patterns formed by combining a dog-leg shape and an inverted dog-leg shape (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately. These servo patterns are well known, and (A) is disclosed in U.S. Patent Publication No. 09/370256, and (B) is disclosed in U.S. Patent No. 5689384 and U.S. Patent No. 5930065, for example. The servo patterns, which underlie the timing base servo, are, as shown in the figure, formed by magnetic transition recorded in non-parallel direction, and read by a dedicated servo head (not shown) included in the head assembly 28."

(5) "[0021] The following description will be given in relation to reading inverted V-shaped servo patterns in FIG. 4 (A) with reference to FIG. 5. The same applies to the

description about reading servo patterns in FIG. 4 (B). In FIG. 5, a dashed-dotted line 60 indicates a center line of servo track, and a servo head (not shown) is assumed to be positioned on the center line. The servo head reads the servo patterns as the tape 20 travels, and transmits read signals to an MPU 38 through a data channel part 54 and a data flow part 46. The MPU 38 measures an in-pattern interval A and an inter-pattern interval B shown in FIG. 5 by using two counters (Counter A and Counter B) which travel at a predetermined clock rate (8.25 MHz, for example), from the read servo pattern signals. The interval A is an interval between non-parallel stripes which form a pair in one repetitive pattern, and a value thereof increases/decreases when the head moves in a width direction (vertical direction in this figure) of the tape 20. The interval B is an interval between two adjacent repetitive patterns, and a value thereof does not vary when the head moves in the width direction of the tape 20. The timing base servos position the head by use of the properties of the Intervals A and B."

The above indicated matters and the description of the figures result in the following.

(a) Evidence A No. 3 relates to servo control of a tape drive, and especially relates to technologies for stabilizing a servo system of a cartridge type tape drive that uses a tape on which servo tracks and data tracks are arranged in the longitudinal direction (Indicated matter (1)), and describes a known arrangement of data tracks and servo tracks, a known servo pattern, and reading of the servo pattern (Indicated matters (3) to (5)), in describing a method and apparatus for resetting a filter coefficient every time a tape cartridge is inserted into a tape drive for stabilizing a servo system by removing destabilizing factors due to combination of a tape drive and a tape cartridge (Indicated matter (2)).

(b) Evidence A No. 3 describes a "magnetic tape" (Indicated matters (3) and (4)).

(c) Data tracks and servo track on a tape 20 are arranged alternately and parallel to each other along a longitudinal direction of the tape 20 (Indicated matter (3)).

(d) The servo patterns recorded on the servo tracks are two kinds of inverted V-shaped patterns (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately, and two kinds of patterns formed by combining a dog-leg shape and an inverted dog-leg shape (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately. These servo patterns are formed by magnetic transition recorded in non-parallel directions (Indicated matter (4)).

(e) The head is positioned by using an interval between non-parallel stripes which form a pair in one repetitive pattern and an interval between adjacent two repetitive patterns (Indicated matter (5)).

In light of the above, Evidence A No. 3 is recognized as describing the following invention (hereinafter referred to as "Invention A-3").

"A magnetic tape,

wherein data tracks and servo track on a tape 20 are arranged alternately and parallel to each other along a longitudinal direction of the tape 20,

the servo patterns recorded on the servo tracks are two kinds of inverted V-shaped patterns (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately, and two kinds of patterns formed by combining a dog-leg shape and an inverted dog-leg shape (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately, and these servo patterns are formed by magnetic transition recorded in a non-parallel direction,

the head is positioned by using an interval between non-parallel stripes which form a pair in one repetitive pattern and an interval between two adjacent repetitive patterns."

As described in "No. 5 1.", Evidence A No. 2 describes "Invention A-2".

Evidence A No. 4 (Japanese Unexamined Patent Application Publication No. 2001-67847) (Basic Application of Priority: Evidence A No. 14 (U.S. Patent No. 6239939)) describes the following matters together with drawings regarding "Data detection method". (The underlines were added by the body.)

(6) "[0028] FIG. 4 illustrates a recording medium 70, such as a magnetic tape medium, having prerecorded interpolatable linear position registration data information 71 recorded, for example, in magnetic flux transition servo patterns, defining at least one longitudinal servo track. The data of the servo track comprises a plurality of frames 73 of alternating groups of burst patterns 74 and 75.
[0029] In accordance with one embodiment of the present invention, one bit 76 of linear position registration data 71 is provided in each frame. The data in the servo track preferably includes a synchronization character 77 followed by the longitudinal position data 71, and may be followed by other data, such as data supplied by the media manufacturer. As an example, the synchronization character 77 may comprise an 8 bit character, such as a "1" bit followed by 7 "0" bits. The synchronization character provides a means of identifying the beginning of each word of linear position registration data."

(7) "[0032] In accordance with the Albrecht et al. patent, FIGS. 5(a) and 5(b) illustrate examples of servo patterns in which data may be encoded or modulated into the servo pattern. The minimum number of transition stripes in a frame that can be used to generate a servo position error signal and to encode data is a single pair of the transition stripes, each transition stripe of the pair being in a separate burst of similarly sloped transition stripes. In the illustrated example of a "5, 4" frame of two groups, two pairs of transition stripes of the 5 stripe group are employed. As illustrated in FIG. 5(a), a "1" is encoded by moving the transition stripes 80 and 81 farther apart, and moving the transition stripes 82 and 83 closer together. As illustrated in FIG. 5B, a "0" is encoded by moving the transition stripes 84 and 85 closer together, and moving the transition stripes 86 and 87 farther apart. The distance by each transition stripe of the pair is moved is identical in magnitude but opposite in direction. In FIGS. 5(a) and 5(b), the 4 stripe group is unchanged and represents the normal spacing of the transition stripes without data."

The above indicated matters and the description of the figures result in the following.

(f) The linear position registration data information 71 is recorded in magnetic flux transition servo patterns defining at least one longitudinal servo track. The data of the servo track comprises a plurality of frames 73 of alternating groups of burst patterns 74 and 75. One bit 76 of linear position registration data 71 is provided in each frame. The data in the servo track preferably includes a synchronization character 77 followed by the longitudinal position data 71, and may be followed by other data, such as data supplied by the media manufacturer. (Indicated matter (6)).

(g) A "1" is encoded by moving the transition stripes 80 and 81 farther apart, and moving the transition stripes 82 and 83 closer together. A "0" is encoded by moving the transition stripes 84 and 85 closer together, and moving the transition stripes 86 and 87 farther apart (Indicated matter (7)).

In light of the above, Evidence A No. 4 is recognized as describing the following technical matters (hereinafter referred to as "Technical matter A-4").

"Linear position registration data information 71 is recorded in magnetic flux transition servo patterns defining at least one longitudinal servo track, the data of the servo track comprises a plurality of frames 73 of alternating groups of burst patterns 74 and 75, one bit 76 of linear position registration data 71 is provided in each frame, the data in the servo track preferably includes a synchronization character 77 followed by the longitudinal position data 71, and may be followed by other data, such as data supplied by the media manufacturer, a "1" is encoded by moving the transition stripes 80 and 81 farther apart, and moving the transition stripes 82 and 83 closer together, a "0" is encoded by moving the transition stripes 84 and 85 closer together, and moving the transition stripes 86 and 87 farther apart."

2. Comparison

Patent Invention 1 and Invention A-3 are compared to each other.

(1) Magnetic tape

Patent Invention 1 and Invention A-3 are identical with each other in the point of "magnetic tape".

(2) A plurality of servo bands

According to the description in [0024] of the patent specification "A predetermined servo signal S1 to S5 for tracking control of the magnetic head is written on each servo band SB1 to SB5", the "servo signal" in Patent invention 1 is recognized as indicating "a predetermined signal for tracking control of a magnetic head, written on each servo band".

Invention A-3 describes that "data tracks and servo track on a tape 20 are arranged alternately and parallel to each other along a longitudinal direction of the tape

20", "the servo patterns recorded on the servo tracks are formed by magnetic transition recorded in non-parallel direction", "the head is positioned by using an interval between non-parallel stripes which form a pair in one repetitive pattern and an interval between adjacent two repetitive patterns". Thus, it can be said that the "servo patterns recorded on the servo tracks" in Invention A-3 correspond to the "servo signal" in Patent invention 1.

Therefore, Patent invention 1 and Invention A-3 are identical with each other in that "a servo signal for tracking control of a magnetic head is written on each of a plurality of servo bands".

(3) Configuration of servo signal

Since Invention A-3 describes that "the servo patterns recorded on the servo tracks are two kinds of inverted V-shaped patterns (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately, and two kinds of patterns formed by combining a dog-leg shape and an inverted dog-leg shape (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately, and these servo patterns are formed by magnetic transition recorded in non-parallel directions", it can be said that the "servo pattern" in Invention A-3 has "patterns each of which comprises non-parallel stripes".

Therefore, Patent invention 1 and Invention A-3 are identical to each other in that "each servo signal consists of patterns, each of which comprises non-parallel stripes".

(4) Embedding data in servo signal

Patent invention 1 describes that "data is embedded in each servo signal written on each servo band, the data being for specifying one of the servo bands where the servo signal is located, and the data is embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction for each servo band", while Invention A-3 does not include such specification. Thus there is a difference between them.

Thus, Patent Invention 1 and Invention A-3 are identical to each other in the following points.

<Corresponding features>

"A magnetic tape comprising a plurality of servo bands on which servo signals are written for tracking control of a magnetic head,

wherein each servo signal consists of patterns, each of which comprises non-parallel stripes."

The different feature is as follows.

<Different feature>

Patent Invention 1 describes that "data is embedded in each servo signal written on each servo band, the data being for specifying one of the servo bands where the

servo signal is located, and the data is embedded in each servo signal by shifting the position of the lines constituting the stripes in the tape longitudinal direction for each servo band", while Invention A-3 does not include such specification.

3. Judgment

The above-mentioned Different feature is examined.

The demandant alleges that Patent Invention 1 could have easily been made by a person skilled in the art on the basis of the inventions described in Evidences A No. 3, No. 2, and No. 4. We will examine employing, in Invention A-3, the configuration of Technical matter A-2 "any number of the erased portions may have varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code", after employing the configuration of Technical matter A-4 "Linear position registration data information 71 is recorded in magnetic flux transition servo patterns defining at least one longitudinal servo track, the data of the servo track comprises a plurality of frames 73 of alternating groups of burst patterns 74 and 75, one bit 76 of linear position registration data 71 is provided in each frame, the data in the servo track preferably includes a synchronization character 77 followed by the longitudinal position data 71, and may be followed by other data, such as data supplied by the media manufacturer, a "1" is encoded by moving the transition stripes 80 and 81 farther apart, and moving the transition stripes 82 and 83 closer together, and a "0" is encoded by moving the transition stripes 84 and 85 closer together, and moving the transition stripes 86 and 87 farther apart."

Since the above servo patterns have commonality, it can be said that a person skilled in the art could have easily conceived of employing the configuration of Technical matter A-4, in Invention A-3.

However, the servo patterns recorded on the servo tracks in Invention A-3, which employs the configuration of Technical matter A-4, are two kinds of inverted V-shaped patterns (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately, and two kinds of patterns formed by combining a dog-leg shape and an inverted dog-leg shape (one is formed of 5 pairs, and the other one is formed of 4 pairs), which appear repeatedly and alternately. The servo band in Invention A-2 is configured so that portions of the servo carrier signal written substantially uniformly across a width of the servo band are erased. Since the formats of the servo patterns recorded on the servo tracks or the servo band assumed by the above inventions are different from each other, Technical matter A-2 cannot be applied directly to Invention A-3, which employs the configuration of Technical matter A-4.

Even if, in applying Technical matter A-2 to Invention A-3 which employs the configuration of Technical matter A-4, the "length" of the "erased portions" in Technical matter A-2 corresponds to the thickness of "a dog-leg shape or a combination of a dog-leg shape and an inverted dog-leg shape", any number of the dog-leg shapes or combinations of a dog-leg shape and an inverted dog-leg shape may have varied thicknesses from one servo track to another to uniquely identify the servo track; i.e., to provide a unique servo track code, and Patent Invention 1 in which "the data being for specifying one of the servo bands where the servo signal is located" is "embedded in each servo signal by shifting the position of the lines constituting the stripes of each

servo signal in tape longitudinal direction for each servo band", cannot be implemented.

Thus, it cannot be said that in Invention A-3, a person skilled in the art could have easily conceived of employing the configuration of Technical matter A-2 after employing the configuration of Technical matter A-4.

Therefore, it cannot be said that Patent Invention 1 could have been easily made by a person skilled in the art on the basis of Invention A-3, Technical matter A-2, and Technical matter A-4.

No. 7 Regarding Patent Invention 1 (Evidence A No. 2 is a main cited document)

1. Evidences A No. 2 and No. 4, and well-known arts

As described in "No. 5 1.", Evidence A No. 2 describes "Invention A-2".

As described in "No. 6 1.", Evidence A No. 4 describes "Technical matter A-4".

Evidences A No. 5 to No. 12 describe non-parallel servo patterns formed by magnetic transition.

2. Comparison

Patent Invention 1 and Invention A-2 are compared to each other.

(1) Magnetic tape

Patent Invention 1 and Invention A-2 are identical with each other in the point of "magnetic tape".

(2) A plurality of servo bands

According to the description in [0024] of the patent specification "A predetermined servo signal S1 to S5 for tracking control of the magnetic head is written on each servo band SB1 to SB5", the "servo signal" in Patent Invention 1 is recognized as indicating "a predetermined signal for tracking control of a magnetic head, written on each servo band".

Invention A-2 describes that "having a servo band, wherein the servo carrier signal is written substantially uniformly across a width of the servo band, portions of the servo carrier signal are erased, the resulting servo track configuration includes pairs of servo tracks defined in the separated paths by the periodic erased portions and non-erased portions, and each pair of servo tracks provides servo track information for use in the reverse and forward transport of the tape, including a plurality of servo bands 161, 162, and 163". Thus, the "servo track configuration" written in the "servo band" in Invention A-2 corresponds to the "servo signal" in Patent invention 1.

Therefore, Patent Invention 1 and Invention A-2 are identical with each other in "comprising a plurality of servo bands on which servo signals are written for tracking control of a magnetic head".

(3) Configuration of servo signal

There is a difference, regarding "each servo signal written on each servo band", between Patent Invention 1 which describes that "consists of patterns each of which is non-parallel stripes", and Invention A-2 which describes that "the servo carrier signal is written substantially uniformly across a width of the servo band, portions of the servo carrier signal are erased, providing the resulting servo track configuration".

(4) Embedding data in servo signal

Since Invention A-2 describes that "the servo bands 161 to 163 being encoded using unlike codes such that the servo band itself can be identified uniquely from the other servo bands", Patent Invention 1 and Invention A-2 are identical with each other in that "data is embedded in each servo signal written on each servo band, the data being for specifying one of the servo bands where the servo signal is located".

However, there is a difference, regarding "embedding data in servo signal", between Patent Invention 1 which describes that "the data is embedded in each servo signal by shifting the position of the lines constituting the stripes of each servo signal in the tape longitudinal direction for each servo band" and Invention A-2 which describes that "any number of the erased portions having varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code".

In light of the above, Patent Invention 1 and Invention A-2 are identical with each other in the following points.

<Corresponding features>

"A magnetic tape comprising a plurality of servo bands on which servo signals are written for tracking control of a magnetic head,

wherein data is embedded in each servo signal written on each servo band, the data being for specifying one of the servo bands where the servo signal is located."

The different features are as follows.

<Different features>

(1) Regarding "each servo signal written on each servo band", Patent Invention 1 describes that "consists of patterns, each of which comprises non-parallel stripes", while Invention A-2 describes that "the servo carrier signal is written substantially uniformly across a width of the servo band, portions of the servo carrier signal are erased, providing the resulting servo track configuration".

(2) Regarding "embedding data in servo signal", Patent Invention 1 describes that "the data is embedded in each servo signal by shifting the position of the lines constituting the stripes of each servo signal in tape longitudinal direction for each servo band", while Invention A-2 describes that "any number of the erased portions having varied lengths from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code".

3. Judgment

The Above Different features (1) and (2) are examined.

The demandant alleges that Patent Invention 1 could have easily been made by a person skilled in the art on the basis of the invention described in Evidence A No. 2, the invention described in Evidence A No. 4, and well-known arts. We will examine applying Technical matter A-4 and the well-known arts to the Invention A-2.

Non-parallel servo patterns formed by magnetic transition are well known.

However, the servo band in Invention A-2 is configured so that portions of the servo carrier signal written substantially uniformly across a width of the servo band are erased, while the servo patterns in Technical matter A-4 and the well-known arts are formed by non-parallel magnetic transition. Since the formats of the servo band or the servo pattern assumed by Invention A-2 and Technical matter A-4, and the well-known arts are different from each other, Technical matter A-4 and the well-known arts cannot be applied to Invention A-2.

Even if, in applying Technical matter A-4 to Invention A-2, "moving" the "stripe" in Technical matter A-4 corresponds to moving the "erased portions" in Invention A-2, any number of the erased portions having varied moving states from one servo band to another to uniquely identify the servo bands; i.e., to provide a unique servo band code, and Patent Invention 1 in which "each servo signal written on each servo band" "consists of patterns each of which comprises non-parallel stripes" and "the data being for specifying one of the servo bands where the servo signal is located" is "embedded in each servo signal by shifting the position of the lines constituting the stripes of each servo signal in the tape longitudinal direction for each servo band", cannot be implemented.

Therefore, it cannot be said that Patent Invention 1 could have been easily made by a person skilled in the art on the basis of Invention A-2, Technical matter A-4, and well-known arts.

No. 8 Regarding Patent Inventions 6 and 8

Claim 6 of the Patent is dependent from Claim 1, and it cannot be said that Patent Invention 1 could have been easily made by a person skilled in the art on the basis of the inventions, technical matters, and well-known arts examined in "No. 5" to "No. 7". Thus, it cannot be said that Patent Invention 6 could have been easily made by a person skilled in the art on the basis of the inventions, technical matters, and well-known arts examined in "No. 5" to "No. 7", and the manufacturing method of a magnetic tape described in Evidence A No. 5.

Claim 8 of the Patent is dependent from Claim 1, and it cannot be said that Patent Invention 1 could have been easily made by a person skilled in the art on the basis of the inventions, technical matters, and well-known arts examined in "No. 5" to "No. 7". Thus, it cannot be said that Patent Invention 8 could have been easily made by a person skilled in the art on the basis of the inventions, technical matters, and well-known arts examined in "No. 5" to "No. 7", and the servo writer described in Evidence A No. 5.

No. 9 Closing

As described above, the allegation and the means of proof of the demandant cannot invalidate the Patent regarding the inventions according to Claims 1, 6, and 8.

The costs in connection with the trial shall be borne by the demandant under the provisions of Article 61 of the Code of Civil Procedure which is applied mutatis mutandis in the provisions of Article 162(2) of the Patent Act.

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

January 9, 2018

Chief administrative judge: KOKUBU, Naoki
Administrative judge: SEKIYA, Ryuichi
Administrative judge: MORIKAWA, Yukitoshi