

## Appeal decision

Appeal No. 2017-4930

USA

Appellant

INTERDIGITAL PATENT HOLDINGS, INC.

Tokyo, Japan

Patent Attorney

TANI & ABE, P.C.

The case of appeal against the examiner's decision of refusal of Japanese Patent Application No. 2014-85487, entitled "Method and apparatus for wireless transmit/receive unit (WTRU), specific pilot signal transmission and wireless transmit/receive unit (WTRU), specific pilot signal power boosting for improving channel estimation" (the application published on October 2, 2014, Japanese Unexamined Patent Application Publication No. 2014-187696) has resulted in the following appeal decision.

### Conclusion

The appeal of the case was groundless.

### Reason

#### No. 1 History of the procedures

The application is a divisional application filed on April 17, 2014 from Patent Application No. 2011-532194 filed on October 14, 2009 as an international filing date (priority claim under the Paris Convention received by the foreign receiving office: October 16, 2008, US). A written amendment was submitted on May 19, 2014, a notice of reasons for refusal was issued as of February 9, 2015, a written opinion and a written amendment were submitted on August 14, 2015, a final notice of reasons for refusal was issued as of December 25, 2015, and a written opinion and a written amendment were submitted on June 27, 2016. A decision to dismiss amendment on the written amendment submitted on June 27, 2016 was made as of November 29, 2016. An examiner's decision of refusal was issued as of November 29, 2016. Against this, an appeal against the examiner's decision of refusal was made on April 6, 2017, and a written amendment was submitted at the same time. Then, a written statement was issued on August 16, 2017 with respect to a reconsideration report written by the examiner as of June 1, 2017.

#### No. 2 Decision to dismiss amendment on the written amendment submitted on April 6, 2017

##### [Conclusion of decision to dismiss amendment]

The written amendment submitted on April 6, 2017 (hereinafter referred to as "the Amendment 1") shall be dismissed.

##### [Reason]

#### 1 Outline of the Amendment 1

The Amendment 1 includes amending the description in Claim 1 of the scope of

claims amended by the written amendment submitted on August 14, 2015,  
"A method, implemented by an evolved Node B (eNB), of processing specific reference signals, the method comprising:

generating an LTE (Long Term Evolution) orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink control channel (PDCCH), wherein the PDCCH is time/frequency multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS); and

transmitting the LTE OFDMA signal,

wherein the DRS is a wireless transmit/receive unit (WTRU)-specific reference signal, and the same precoding is applied to the DRS and the PDCCH",  
to the description,

"A method, implemented by an evolved Node B (eNB), of processing specific reference signals, the method comprising:

generating an LTE (Long Term Evolution) orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink control channel (PDCCH), wherein a portion of the REs are allocated to carry the wireless transmit/receive unit (WTRU)-specific reference signals, and wherein the PDCCH is time/frequency code division multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS); and

transmitting the LTE OFDMA signal,

wherein the DRS is a WTRU-specific reference signal, and the same precoding is applied to the DRS and the PDCCH". ([Note by the body]: Underlines indicate amended portions.)

## 2 Propriety of amendment

The existence or absence of new matters is examined below.

[Existence or absence of explicit description]

The description was amended by the Amendment 1 from "the PDCCH is time/frequency multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS)" to "the PDCCH is time/frequency code division multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS)". However, there is no explicit description about the PDCCH time/frequency code division multiplexed, in the patent description at the time of filing the application (hereinafter referred to as "original description").

[Regarding code-division multiplexing]

In the original description, there is only the following description about code-division multiplexing.

"[Claim 1]

A method characterized in that

(Omitted)

the WTRU-specific reference signals are multiplexed with code division multiplexing."

"[0012]

ERSs (expanded reference signals) are arranged to ensure time- frequency and/or spreading code division."

"[0015]

(Omitted) The orthogonality may be achieved by transmitting these ERSs on different REs through the use of time and/or frequency multiplexing, by transmitting these ERSs on the same REs through the use of code division multiplexing, or by using a combination of these techniques.

[0016]

A sample configuration is illustrated in FIG. 2 where an ERS pattern for up to 4 layers is shown. The ERSs configured for layers 1 and 2 are multiplexed with code division multiplexing, (by spreading the ERSs for the two layers over two REs with orthogonal spreading codes), as well as the ERSs for layers 3 and 4."

"[0030]

The WTRU-specific reference signals may be configured in a pattern for multiple layers. WTRU-specific reference signals configured for particular ones of the layers may be multiplexed using at least one of time division multiplexing, frequency division multiplexing, and code division multiplexing."

"[0046]

11. The method of embodiment 10 wherein WTRU-specific reference signals configured for particular ones of the layers are multiplexed using at least one of time division multiplexing, frequency division multiplexing, and code division multiplexing."

"[0064]

29. The WTRU of embodiment 28 wherein WTRU-specific reference signals configured for particular ones of the layers are multiplexed using at least one of time division multiplexing, frequency division multiplexing, and code division multiplexing."

As is obvious from the above description, the signal to be code division multiplexed is a WTRU-specific reference signal.

According to the description in [0016], FIG. 2, and the technical common sense of a person skilled in the art, it can be recognized that the ERSs configured for layers 1 and 2 and the ERSs configured for layers 3 and 4 are mapped (i.e. time/frequency multiplexed) to different sets of REs ("L1/L2 expanded reference signal (ERS) resource elements (REs)" and "L3/L4 expanded reference signal (ERS) REs" in FIG. 2) in resource blocks. It can be recognized that despite of the ERS configured for the layer 1 and the ERS configured for the layer 2 are mapped to the same set of REs ("L1/L2 expanded reference signal (ERS) resource elements (REs)" in FIG. 2), they can be identification using code division multiplexing with an orthogonal spreading code with a length of 2 is applied to two REs adjacent in time direction. Similarly, it can be recognized that despite of the ERS configured for the layer 3 and the ERS configured for the layer 4 are mapped to the same set of REs ("L3/L4 expanded reference signal (ERS) REs" in FIG. 2), they can be identification using code division multiplexing with an orthogonal spreading code with a length of 2 is applied to two REs adjacent in time direction.

Therefore, it can be recognized that the "code division multiplexing" described in the original description is that despite of two WTRU-specific reference signals mapped

to the same set of REs, they can be identified with an orthogonal spreading code with a length of 2 is applied to two REs adjacent in time direction.

[PDCCH]

The original description includes the following description about PDCCH.

"[0017]

Another method to send ERSs is to puncture the REs used for the PDCCH of a specific WTRU. In this case, the puncturing pattern is known to the WTRU so that the WTRU can ignore these REs while trying to decode the control channel data. Only the control channels of WTRUs that need additional ERSs are punctured. These WTRUs will ignore the REs used as ERSs, and decode the control data by using the remaining REs in the control channel. This is transparent to the other WTRUs, because a control channel, (regardless of being punctured or not), used for a WTRU cannot be decoded by the remaining WTRUs. The number, transmission power, and time-frequency locations of the ERS can be signaled by broadcast, L2/3 signaling, or combinations of them."

According to the above description, it can be recognized that the REs used for the PDCCH of a specific WTRU are punctured, and the WTRU-specific reference signals (ERSs) map to the REs. However, there is no description or indication about code division multiplexing of the PDCCH of the specific WTRU remaining without being punctured. There is also no description about mapping multiple signals to the same set of REs on the PDCCH. Thus, there is no necessity to code division multiplex the PDCCH.

[Appellant's allegation]

The appellant alleges, in the written demand, that the invention after Amendment 1 is supported by the descriptions in [0010] to [0012], [0024], and [0025]. Corresponding portions are also examined below.

The original description includes the following description about the corresponding portions.

"[0010]

A mechanism is provided for WTRUs that require improved channel estimation, (e.g., cell edge WTRUs), whereby additional REs are allocated as WTRU-specific reference signals/pilots. These additional REs can be defined as expanded reference signals (ERS). In R8, WTRU-specific RSs are used only for a single transmission mode (mode 7) and support only one layer of data transmission (single layer beamforming). These pilots are dedicated reference signals (DRSs) and are transmitted over port 5, (and beamformed in the same way as the data). For simplicity, some or all of the REs defined as WTRU specific RSs in R8 can be used as ERSs.

[0011]

In R8, data demodulation is achieved with common RSs. In R10 and in further releases, data demodulation may be achieved with WTRU-specific RSs, not for a single transmission mode, but for all MIMO transmission modes and any other type of transmission mode. These new WTRU-specific RSs (i.e., ERSs) may be transmitted alone, or in addition to the CRSs, and may be precoded in the same way as the PDSCH,

or not precoded at all.

[0012]

Expanded reference signals (ERSs) are arranged to ensure time-frequency and/or spreading code division. The power level for the ERSs does not need to be the same power as the CRSs, since they will not be used by other WTRUs. The power of the ERSs may be determined by  $P_A$  and/or  $P_B$ , or other new fixed, cell-specific, or WTRU-specific parameters. The number, transmission power, and time-frequency locations of the ERSs may be fixed or signaled by broadcast, layer 2(L2)/layer 3(L3) signaling, layer 1(L1) signaling, or combinations thereof. For example, the possible locations of ERS are either fixed or can be updated semi-statically via broadcast channel."

"[0024]

For the downlink(DL), the processor 315 in the eNodeB 300 is configured to generate the WTRU-specific reference signals and map them to the REs that are allocated to carry the reference signals. The processor may also precode the WTRU-specific reference signals. The transmitter 320 in the eNodeB 300 is configured to transmit an OFDMA signal including a plurality of time/frequency REs constituting a PDSCH or a PDCCH, wherein a portion of the REs are allocated to carry the precoded WTRU-specific reference signals.

[0025]

For the uplink(UL), the receiver 310 in the eNodeB 300 is configured to receive an OFDMA signal from at least one WTRU including a plurality of time/frequency REs constituting a physical uplink shared channel(PUSCH) or a physical uplink control channel(PUCCH), wherein a portion of the REs are allocated to carry WTRU-specific reference signals which may also be precoded. The processor 315 in the eNodeB 300 may be configured to perform a channel estimation based on the WTRU-specific reference signals."

In light of the above description, there is no description or indication about time/frequency code division multiplexing of the PDCCH, and it is also not obvious. Therefore, the appellant's allegation cannot be accepted.

[Summary]

As described above, the original description does not describe or indicate that "the PDCCH is time/frequency code division multiplexed," and the content is not consistent with the content of "code division multiplexing" described in the original description. Therefore, Amendment 1 is to introduce a new technical matter in a relationship with a technical matter to be derived by integrating all descriptions in the original description.

The appellant submitted the written statement on August 16, 2017, as a draft amendment, with respect to the reconsideration report written by the examiner as of June 1, 2017. However, regarding the matter described in Claim 1 of the draft amendment, "the PDCCH is time/frequency multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS) using code division multiplexing," the original description does not describe that the PDCCH uses code division multiplexing, and the draft amendment is to introduce a new technical matter in a relationship with a technical matter to be derived by integrating all descriptions in the

original description. Therefore, the draft amendment cannot be accepted.

### 3 Concluding remarks

As described above, the written amendment submitted on April 6, 2017 (Amendment 1) violates the provisions of Article 17-2(3) of the Patent Act, and shall be dismissed under the provisions of Article 53(1) of the Patent Act which is applied mutatis mutandis pursuant to Article 159(1) of the Patent Act.

### No. 3 Regarding the Invention

#### 1 The invention

Since the written amendment submitted on April 6, 2017 was dismissed as described above, the invention according to Claims 1 to 14 of the application is recognized as described in Claims 1 to 14 of the scope of claims amended by the written amendment (hereinafter referred to as "Amendment 2") submitted on August 14, 2015.

Amendment 2 includes amending the description in Claim 1 of the scope of claims amended by the written amendment submitted on May 19, 2014,

"A method, implemented by an evolved Node B (eNB), of processing specific reference signals, the method comprising:

a step of transmitting an orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink shared channel (PDSCH), wherein a portion of the REs are allocated to carry WTRU-specific reference signals; and

a step of receiving the WTRU-specific reference signals on different layers, wherein the WTRU-specific reference signals are orthogonal to each other,

wherein locations and quantity of REs allocated for the WTRU-specific reference signals are determined based on the number of layers to be used for transmission,

and wherein the WTRU-specific reference signals are multiplexed using code-division multiplexing"

to the description,

"A method, implemented by an evolved Node B (eNB), of processing specific reference signals, the method comprising:

generating an LTE (Long Term Evolution) orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink control channel (PDCCH), wherein the PDCCH is time/frequency multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS); and

transmitting the LTE OFDMA signal,

wherein the DRS is a wireless transmit/receive unit (WTRU)-specific reference signal, and the same precoding is applied to the DRS and the PDCCH". ([Note by the body]: Underlines indicate amended portions.)

#### 2 Reasons for the examiner's decision of refusal

The reason for the examiner's decision of refusal is that the written amendment submitted as of August 14, 2015 does not meet the requirement stipulated in Article 17-2(4) of the Patent Act, since the invention according to the following claims after

amendment and the invention for which the pre-amendment notice of reasons for refusal indicates a judgment as to patentability do not constitute a single group of inventions satisfying the requirement of unity of invention in Article 37 of the Patent Act.

Specifically,

the notice of reasons for refusal as of February 9, 2015 describes that a "special technical feature" (a difference from Cited document 1 (International publication No. WO 2008/103317)) was found in the invention according to Claim 1 before amendment. Meanwhile, the invention according to Claims 1 to 14 and the invention according to Claim 1 before amendment have a common technical feature, "a method, implemented by an evolved Node B (eNB), of processing specific reference signals, the method comprising transmitting an orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs)." However, the technical feature, which does not contribute to a prior art in light of the contents disclosed in International publication No. WO 2008/103317 (see the notice of reasons for refusal as of February 9, 2015), cannot be a special technical feature. There is no other common or corresponding special technical feature between the invention according to Claim 1 before amendment and the invention according to Claims 1 to 14.

### 3 Judgment by the body

[Provisions in the Patent Act]

The provisions stipulated in the Article 17-2(4) of the Patent Act are as follows.

"If an amendment other than what is provided for in the preceding paragraph is made to a claim, in a case set forth in one of the items of paragraph (1), it must be made in such a way that the invention for which the pre-amendment notice of grounds for rejection indicates a judgment as to patentability and the invention defined by what is described in the claims after that amendment constitute a single group of inventions that satisfies the Article 37 requirement of unity of invention."

The provisions stipulated in the Article 37 of the Patent Act are as follows.

"Two or more inventions may be the subject of a single patent application in the same written application provided that these inventions are of a group of inventions recognized as fulfilling the requirements of unity of invention based on their technical relationship specified by Order of the Ministry of Economy, Trade and Industry."

Regarding the "technical relationship specified by Order of the Ministry of Economy, Trade and Industry," the following matters are stipulated in Article 25(8) of the Enforcement Regulations of the Patent Law.

"The technical relationship specified by the Ordinance of METI set forth in Article 37 of the Patent Law is the technical relationship of two or more inventions which have a common or corresponding special technical feature, and hence, are associated with each other to form a single general inventive idea.

2 The special technical feature under the previous paragraph is a technical feature clearly providing a contribution over the prior art of the invention.

3 The presence or absence of the technical relationship prescribed in paragraph 1 shall be judged, regardless of whether two or more inventions are described in separate claims or are described in an alternative form in a single claim."

Therefore, in order to satisfy the provisions of Article 17-2(4) of the Patent Act,

the invention for which the pre-amendment notice of grounds for rejection indicates a judgment as to patentability and the invention defined by what is described in the claims after that amendment must have a common or corresponding "special technical feature," which is a "technical feature clearly providing a contribution over the prior art of the invention." In other words, the technical feature common to both inventions must be the "technical feature clearly providing a contribution over the prior art of the invention" ("special technical feature").

[Intent of the law]

The provisions of Article 17-2(4) of the Patent Act were stipulated for the case where the inspection on a prior art and a result of examination by the examiners cannot be effectively utilized due to amendment of modifying a special technical feature of the invention, and additional inspection and examination are required, thereby interfering with immediate and appropriate grant or reducing fairness in treating applications.

[Application of the Amendment 2]

The invention according to Claim 1 before the Amendment 2 is, as described in the former clause in the above 1,

"A method, implemented by an evolved Node B (eNB), of processing specific reference signals, the method comprising:

a step of transmitting an orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink shared channel (PDSCH), wherein a portion of the REs are allocated to carry WTRU-specific reference signals; and

a step of receiving the WTRU-specific reference signals on different layers, wherein the WTRU-specific reference signals are orthogonal to each other,

wherein locations and quantity of REs allocated for the WTRU-specific reference signals are determined based on the number of layers to be used for transmission,

and wherein the WTRU-specific reference signals are multiplexed using code-division multiplexing." (same as the above)

Meanwhile, the invention according to Claim 1 after the Amendment 2 is, as described in the latter clause in the above 1,

"A method, implemented by an evolved Node B (eNB), of processing specific reference signals, the method comprising:

generating an LTE (Long Term Evolution) orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink control channel (PDCCH), wherein the PDCCH is time/frequency code-division multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS); and

transmitting the LTE OFDMA signal,

wherein the DRS is a wireless transmit/receive unit (WTRU)-specific reference signal, and the same precoding is applied to the DRS and the PDCCH." (same as the above)

In comparing them,



"An orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink shared channel (PDSCH)" is transmitted and "a portion of the REs are allocated to carry WTRU-specific reference signals" in the invention before Amendment 2, whereas an "LTE (Long Term Evolution) orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink control channel (PDCCH)" is transmitted and "the PDCCH is time/frequency code-division multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS)" in the invention after Amendment 2.

A sub-frame of the physical downlink channel of the LTE OFDMA signal includes, as a matter of technical common sense, a PDCCH which is a control area formed of several OFDM symbols located at the head of the sub-frame and a PDSCH which is a data area formed of the other portion of the sub-frame. It can be said that a technical feature on the signal transmitted is the PDSCH in the invention before Amendment 2, while the technical feature is the PDCCH formed of the portion other than the PDSCH in the invention after Amendment 2.

However, both PDCCH and PDSCH constitute a portion of the sub-frame of the physical downlink channel. Therefore, it can be said that the inventions according to Claim 1 after and before Amendment 2 correspond to each other in the point of "transmitting an orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink channel."

The invention before Amendment 2 includes "a step of receiving the WTRU-specific reference signals on different layers, wherein the WTRU-specific reference signals are orthogonal to each other," and has technical features, such as "locations and quantity of REs allocated for the WTRU-specific reference signals are determined based on the number of layers to be used for transmission" and "the WTRU-specific reference signals are multiplexed using code division multiplexing." The invention after Amendment 2 has technical features, such as "the PDCCH is time/frequency multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS)" and "the same precoding is applied to the DRS and the PDCCH," wherein a "WTRU-specific reference signal" is limited to a "dedicated reference signal (DRS)."

The technical features of the invention before Amendment 2 do not exist in the invention after Amendment 2. The technical features of the invention after Amendment 2 do not exist in the invention before Amendment 2.

However, the description in the invention before Amendment 2, "a portion of the REs are allocated to carry WTRU-specific reference signals," and the descriptions in the invention after Amendment 2, "the PDCCH is time/frequency multiplexed together with a common reference signal (CRS) and a dedicated reference signal (DRS)" and "the DRS is a wireless transmit/receive unit (WTRU)-specific reference signal," are common in the point that "the WTRU-specific signal is included in the signal to be transmitted."

Therefore, the technical feature common to the inventions before and after Amendment 2 is as follows.

"A method, implemented by an evolved Node B (eNB), of processing specific reference

signals, the method comprising

Transmitting an orthogonal frequency division multiple access (OFDMA) signal including a plurality of time/frequency resource elements (REs) constituting a physical downlink control channel, wherein the signal to be transmitted includes a WTRU-specific reference signal."

The reasons for refusal on Claim 1 as of February 9, 2015 indicate that the invention according to Claim 1 could have been easily invented by a person who had ordinary skill in the art belonging to the Invention before the filing date, based on the inventions described in Cited Documents 1 to 3 distributed in Japan or a foreign country before the filing date, and accordingly, the appellant should not be granted a patent for the Invention in accordance with the provisions of Article 29(2) of the Patent Act. Cited document 1 (International Publication No. WO 2008/103317) indicates that the following descriptions are included: a "dedicated reference signal" (i.e. "WTRU-specific reference signal") in the subcarriers allocated within the appropriate OFDM layout (see [0053]); The information of resource allocation is transmitted to WTRU (see [0034]); WTRU retrieves the information for the precoded pilot (see [0035]); in the case of M data streams or layers, M precoding vectors and thus "M dedicated RSs" are required (see [0032]); the precoded pilot is transmitted to WTRU using "WTRU specific dedicated reference signals" of a transmitted OFDM block (see [0026]-[0029], and [0048]); and WTRU receives the transmitted OFDM block including a data symbol and the precoded pilot (see[0049]).

Consequently, the common technical feature, which is described in Cited Document 1 (International Publication No. WO 2008/103317), is not a technical feature clearly providing a contribution over the prior art of the invention in light of the content disclosed in Cited Document 1 (International Publication No. WO 2008/103317), and cannot be a "special technical feature." Therefore, it cannot be said that the inventions before and after Amendment 2 have a common or corresponding special technical feature and hence, have a technical relation that are associated with each other to form a single general inventive idea.

(In light of the prior art disclosed in International Publication No. WO 2008/103317, it can be said that the special technical feature of the invention before Amendment 2 is that "the WTRU-specific reference signals are orthogonal to each other" and "locations and quantity of REs allocated for the WTRU-specific reference signals are determined based on the number of layers to be used for transmission, and the WTRU-specific reference signals are multiplexed using code division multiplexing." The special technical feature does not exist in Claim 1 of the invention after Amendment 2.)

[Regarding the relationship with the intent of the law]

Regarding a viewpoint of the above [intent of the law] for Amendment 2, that the special technical feature of the invention before Amendment 2 does not exist in Claim 1 of the invention after Amendment 2, Claim 1 after Amendment 2 has technical features, which does not exist before Amendment 2, that an OFDMA signal to be transmitted is an LTE OFDMA signal including a plurality of time/frequency resource elements (REs) constituting a PDCCH, the PDCCH is time/frequency multiplexed together with a CRS and a DRS, and that the same precoding is applied to the DRS and

PDCCH. Therefore, it is obvious that, regarding the technical features of Claim 1 after Amendment 2, the inspection on a prior art and a result of examination by the examiners cannot be effectively utilized, and additional inspection and examination are required, thereby interfering with immediate and appropriate grant or reducing fairness in treating applications.

Accordingly, Amendment 2 cannot be accepted in light of the object of Article 17-2(4) of the Patent Act.

[Summary]

Therefore, the invention according to Claim 1 of the invention after Amendment 2 and the invention for which the pre-amendment notice of grounds for rejection indicates a judgment as to patentability do not constitute a single group of inventions that satisfies the Article 37 of the Patent Act, requirement of unity of invention. Accordingly, Amendment 2 does not meet the requirements stipulated in Article 17-2(4) of the Patent Act.

[Additional remark]

Although the draft amendment presented in the written statement submitted on August 16, 2017, which includes a new matter, cannot be accepted as described in the proviso in "No. 2 2," the appellant's allegation based on the draft amendment is also examined below.

The appellant alleges in the written statement that Cited Document A (International Publication No. WO 2008/103317) includes no disclosure or indication about a physical downlink shared channel (PDSCH) or an OFDMA signal including a plurality of time/frequency resource elements (REs) constituting a PDSCH, and that the feature common to the draft amendment and the invention according to Claim 1 of the written amendment as of May 19, 2014, which provides a contribution over the prior art in light of the content disclosed in the Cited Document 1, can be a special technical feature.

However, Cited Document 1 (International Publication No. WO 2008/103317) describes in [0039] about FIG. 4, "It should be noted that D may include data or a control channel. For example, in the first three OFDM symbols (i.e., first three rows in time in Figure 4) a portion of the Ds can be control channels." FIG. 4 illustrates an OFDMA signal including a plurality of time-frequency resource elements (REs). Although no term "PDSCH" is used, it is obvious to a person skilled in the art that the data channel represented by "D" on the fourth and subsequent OFDM symbols in FIG. 4 corresponds to the "physical downlink shared channel (PDSCH)" in this application. Therefore, the above allegation cannot be accepted.

4 Closing

Accordingly, the written amendment (Amendment 2) submitted on August 14, 2015 does not satisfy the requirement stipulated in Article 17-2(4) of the Patent Act. Thus, the appellant should not be granted a patent for the invention.

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

June 28, 2018

Chief administrative judge: NAKAKI, Tsutomu  
Administrative judge: SUGAHARA, Michiharu  
Administrative judge: KAIEDA, Akihiro