Appeal decision

Appeal No. 2019-12497

Appellant ROHM CO. LTD.

Patent Attorney Sano Patent Office

The case of appeal against the examiner's decision of refusal of Japanese Patent Application No. 2015-112847, entitled "CHARGE SYSTEM USING NFC, MOBILE EQUIPMENT, AND BATTERY CHARGER" (the application published on December 28, 2016, Japanese Unexamined Patent Application Publication No. 2016-226230) has resulted in the following appeal decision.

Conclusion

The appeal of the case was groundless.

Reason

No. 1 History of the procedures

The present application is Japanese Patent Application No. 2015-112847 filed on June 3, 2015. The history of the procedures thereof is outlined below.

Dated January 10, 2019 : Notice of reasons for refusal

March 6, 2019 : Submission of Written opinion and Written amendment

Dated June 17, 2019 : Examiner's decision of refusal

September 20, 2019 : Submission of Written appeal and Written amendment

No. 2 Decision to dismiss amendment on the written amendment submitted on September 20, 2019

[Conclusion of Decision to Dismiss Amendment]

The written amendment submitted on September 20, 2019 (hereinafter referred to as "the Amendment") shall be dismissed.

[Reason]

1 Regarding the Amendment (Details of Amendment)

The recitation of Claim 1 of the scope of claims was amended as follows by the Amendment. (The invention is hereinafter referred to as "the Amended Invention". The underlines indicate amended portions.)

"A charge system including: mobile equipment having a first NFC antenna and a rechargeable battery to be charged by electromagnetic induction based on a current induced in the first NFC antenna; a battery charger having a second NFC antenna to induce electromagnetic induction in the first NFC antenna and a supply part for supplying a power-feeding current for electromagnetic induction to the second NFC antenna; and an IC card having a third NFC antenna and allowed to approach the battery charger with the mobile equipment, the charge system comprising protective means configured to prevent the IC card from being destroyed by mistake by electromagnetic induction generated in the third NFC antenna of the IC card when the power-feeding current is supplied to the second NFC antenna of the battery charger for inducing the current in the first NFC antenna of the mobile equipment, the protective means including guide means for guiding the mobile equipment so as to approach the battery charger in a predetermined state and blocking the IC card so that the third NFC antenna may not approach the second NFC antenna."

2 Propriety of amendment

Regarding the "protective means configured to prevent the IC card from being destroyed by mistake by electromagnetic induction generated in the third NFC antenna of the IC card when the power-feeding current is supplied to the second NFC antenna of the battery charger for inducing the current in the first NFC antenna of the mobile equipment" added by the Amendment, we will examine propriety of the amendment below.

The specification, the scope of claims, or drawings originally attached to the application (hereinafter referred to as "Originally attached specification, etc.") include the following description. The underlines were added by the body.

"[Description of Embodiments]
[Example 1]
[0014]

FIG. 1 is a block diagram which illustrates a general configuration of Example 1 in the charge system according to the embodiment of the Invention. The charge

system of FIG. 1 includes a digital camera 2, a charge/data transfer station 4 serving as a battery charger, and a personal computer 6. The digital camera 2 is charged by an NFC from the charge/data transfer station 4 connected to the personal computer 6 with a USB cable 8. In FIG. 1, an IC card is shown which can communicate with the charge/data transfer station 4 using the NFC. A relationship with the charge system is described later.

(Omitted)

[0020]

A charge control unit 34 supplies a power-feeding current for electromagnetic induction to the mobile NFC antenna/IC 28 by electric power from a power supply unit 36 based on power-feeding from the personal computer 6. The charge control unit 34 prohibits supply of a power-feeding current for electromagnetic induction when having determined that the digital camera 2 is not located in a normal charging position or when having determined that an IC card 10 which is likely to be destroyed by generation of an electromagnetic field is located in the normal charging position. A proximity sensor 38 detects, for this purpose, whether the device placed on a charging surface of the charge/data transfer station 4 is located in the normal charging position or not, and whether the device placed in the normal charging position is an IC card 10 or not. The details thereof are described later.

(Omitted)

[0023]

The IC card 10 includes a card function unit 44 for authentication with the personal computer 6, data communication, or the like, and a card NFC antenna 46 for transferring data to/from another data reader/writer.

[0024]

The personal computer 6 includes a personal computer control unit 48 for controlling functions of the charge/data transfer station 4. A personal computer storage unit 50 stores programs and data required for functions of the personal computer control unit 50, and stores image data, or the like, transferred from the digital camera. A power supply unit 52 supplies power to the power supply unit 36 of the charge/data transfer station 4. The USB cable 8 connects the charge/data transfer station 4 to the personal computer 6 for transmitting control information to control the functions of the charge/data transfer station 4 by the personal computer control unit 48, and for supplying power to the power supply unit 36 of the charge/data transfer station 4. The connection lines shown in FIG. 1 schematically illustrate associations between constituent components, and do not represent an actual configuration of the USB cable.

Actual transmission of control signals and electric power between the charge/data transfer station 4 and the personal computer 6 is conducted by a cable structure based on a standard of a normal USB cable.

(Omitted)

[0036]

FIG. 5 is a top view of the charge/data transfer station 4 in Example 1 of FIG. 1, and illustrates a situation where an IC card wrongly pressed against a positioning stopper 54 is placed on the charge/data transfer station 4. Components the same as those in FIG. 2 are assigned the same reference numerals, and are not further explained unless necessary. FIG. 5 (A) is the same as FIG. 3 (A).

[0037]

In FIG. 5 (B), the IC card 10 pressed against the positioning stopper 54 is placed on the charge/data transfer station 4. A normal position detection sensor 38a and a wrong-direction detection sensor 38c are covered by the IC card 10, while the wide IC card also covers a card detection sensor 38b. Accordingly, a combination of the outputs of the normal position detection sensor 38a, the card detection sensor 38b, and the wrong-direction detection sensor 38c determines that the device placed on the charge/data transfer station 4 is the IC card 10. As a result, as is the case with FIG. 4 (A), the mobile NFC antenna/IC 28 is retained in a communication position, and supply of a power-feeding current for electromagnetic induction is prohibited. Only data transfer using the NFC is conducted. Since the card NFC antenna 46 is located in the service area of the mobile NFC antenna/IC 28 retained in the communication position, detection of the IC card and information exchange are enabled. The same result is obtained even when the IC card is situated as shown in FIG. 4.

[0038]

FIG. 6 is a basic flowchart showing operation of the personal computer control unit 48 in Example 1. Although the personal computer 6 executes various functions, the flow in FIG. 6 shows only a portion related to charging and communication of a device placed on the charge/data transfer station 4. Thus, an actual flow of the personal computer 6 implements various unillustrated functions. The flow in FIG. 6 starts with power-on of a personal computer power supply unit 52, executes boot processing in Step S2, and proceeds to Step S4.

[0039]

In Step S4, the mobile NFC antenna/IC 28 is set in the communication position, then the process proceeds to Step S6 to check whether another device exists in the communication area of the mobile NFC antenna/IC 28. When there is a corresponding

device, the process proceeds to Step S8 to check whether NFC communication has been established with the device. When the communication has been established, the process proceeds to Step S10 to check whether a predetermined NFC communication has been established and whether the device has been authenticated as a device to be subjected to short-range communication after authentication of the NFC communication, and the process proceeds to Step S12 when the predetermined NFC communication and the above authentication are successful. In Step S12, it is checked whether a short-range communication has been established with the authenticated device, and the process proceeds to Step S14 when the communication has been established to execute processing of starting a predetermined short-range communication (e.g., image data transfer). Thereafter, the process proceeds to Step S16.

[0040]

When the NFC communication with the device cannot be established in step S8, when the predetermined NFC communication and authentication of the device using the NFC communication fail in S10, or when establishment of the short-range communication with the device authenticated cannot be confirmed in Step S12, the process immediately proceeds to Step S16. When the process proceeds from Step S12 to Step S16 directly, a predetermined NFC communication and authentication as an NFC communication device have been completed.

[0041]

In Step S16, it is determined whether the device connected by NFC communication is located in a normal charging position or not, on the basis of an output of the proximity sensor 38. When the device is located in the normal charging position, the process proceeds to Step S18 to check by NFC communication whether the device is a chargeable device or not. When the device is a chargeable device, the mobile NFC antenna/IC 28 is moved from a communication position to an initial charging position, then an optimal charging position (where the mobile NFC antenna/IC 28 is located in a position corresponding to a digital camera NFC antenna 24 and can obtain the maximum electromagnetic induction) is searched on the basis of information of the antenna control unit, by trial and error.

[0042]

In Step S22, it is checked whether the optimal charging position has been fixed or not, and trial and error is repeated until it is fixed. When the optimal charging position is fixed in Step S22, the process proceeds to Step S24 to execute processing to start supplying a power-feeding current for electromagnetic induction from the charge control unit 34 to the mobile NFC antenna/IC 28. Thereafter, the process proceeds to

Step S26.

(Omitted)

[Example 3]

[0049]

FIG. 8 is a block diagram illustrating a general configuration of Example 3 in the charge system according to the embodiment of the Invention. Since Example 3 has a lot in common with Example 1, the same reference numerals are assigned to corresponding components and are not explained further unless necessary. A difference between Example 2 shown in FIG. 8 and Example 1 shown in FIG. 1 is that Example 2 provides the charge/data transfer station 204 with an adaptor and installs an adaptor mount/insertion detection unit 238 as a countermeasure against a problem that the digital camera NFC antenna is disposed in different positions in different types of digital cameras and a problem that the IC card 10 is likely to be destroyed by generation of an electromagnetic field.

[0050]

Specifically, in Example 3 in FIG. 8, replaceable adaptors, which are dedicated to each digital camera, guide a digital camera NFC antenna in each digital camera so as to be always located in a position corresponding to a fixed NFC antenna/IC. Accordingly, in the charge/data transfer station 204 of Example 3, a fixed NFC antenna/IC 228 is employed, thereby requiring no antenna driving mechanism or control unit thereof as shown in Example 1. In addition, the adaptor has a shape, as described later, to prevent the card NFC antenna 46 of the IC card 10 from approaching a part where large electromagnetic fields are generated. The details of the adaptor are described later. The personal computer control unit 248 of Example 3 in FIG. 8 prohibits, on receipt of a detection output from the adaptor mount/insertion detection unit 238, supply of a power-feeding current for electromagnetic induction to the fixed NFC antenna/IC 228 when the above adaptor is not mounted and the IC card 10 is likely to approach. The personal computer control unit 248 supplies, on receipt of a detection output from the adaptor mount/insertion detection unit 238, a power-feeding current for electromagnetic induction to the fixed NFC antenna/IC 228 when a digital camera is inserted to the charge/data transfer station 204 on which the adaptor has been mounted.

(Omitted)

[0056]

FIG. 11 is a perspective view of the charge/data transfer station 204, the digital camera 202, an adaptor 254 dedicated to the digital camera 202, and the IC card 10 in

Example 3. FIG. 11, which is similar to FIG. 9 (B), illustrates a state where the digital camera 202 has not yet been inserted. The adaptor 254, which is dedicated to the digital camera 202, can be inserted to the digital camera 202 from the state of FIG. 11(A) to the state FIG. 9 (B), as a matter of course.

[0057]

Meanwhile, FIG. 11 (B) illustrates a state where the IC card 10 is to be inserted wrongly into a slot 254a. However, the IC card 10 having a width larger than the slot 254a cannot be inserted. In a state of FIG. 11 (B), since the adaptor 254 is connected to the charge/data transfer station 204, one of conditions for supplying a power-feeding current for electromagnetic induction is satisfied. However, since the IC card 10 cannot be inserted, the IC card 10 is not destroyed by electromagnetic induction.

[0058]

The digital camera 202 is relatively small in width. When the width is large, as is the case with the digital camera 258 of a different type in FIG. 10, the width of the slot 255a of the adaptor 255 is large, accordingly. Therefore, the IC card 10 is likely to be inserted by mistake. However, as shown in FIG. 11 (B), even if a card can be inserted, the IC card 10 cannot be inserted with an antenna coil of the card NFC antenna parallel to an antenna coil of the fixed NFC antenna/IC of the charge/data transfer station 204. In this way, the adaptor to be connected to the charge/data transfer station prevents the antenna coil of the IC card NFC antenna from approaching in parallel to the antenna coil of the fixed NFC antenna/IC of the charge/data transfer station and thereby it is also useful for preventing strong electromagnetic induction.

[0059]

FIG. 12 is a basic flowchart showing operation of the personal computer control unit 248 in Example 3. As is the case with FIG. 6, the flowchart shows only a portion related to charging and communication of a device placed on the charge/data transfer station 204. The flow in FIG. 12 also starts with power-on of a personal computer power supply unit 52, executes boot processing in Step S42, and proceeds to Step S44.

[0060]

In Step S44, it is checked whether another device exists in the communication area of the fixed NFC antenna/IC 228. When there is a corresponding device, the process proceeds to Step S46 to check whether NFC communication has been established with the device. When the communication has been established, the process proceeds to Step S48 to check whether a predetermined NFC communication has been established and whether the device has been authenticated as a device to be subjected to short-range communication by authentication of the NFC communication,

and the process proceeds to Step S50 when the predetermined NFC communication and the above authentication are successful. In Step S50, it is checked whether a short-range communication has been established with the authenticated device, and the process proceeds to Step S52 when the communication has been established to execute processing of starting a predetermined short-range communication. Thereafter, the process proceeds to Step S54.

[0061]

When the NFC communication with the device cannot be established in step S46, when the predetermined NFC communication and authentication of the device using the NFC communication fail in S48, or when establishment of the short-range communication with the device authenticated cannot be confirmed in Step S50, the process immediately proceeds to Step S54. When the process proceeds from Step S50 to Step S54 directly, a predetermined NFC communication and authentication as an NFC communication device have been completed.

[0062]

In Step S54, it is checked whether the adaptor has been mounted on the charge/data transfer station 204, on the basis of a detection signal of the adaptor mount/insertion detection unit 238. When the adaptor has been mounted, the process proceeds to Step S56 to check whether the device has been inserted in a through hole of the adaptor. When insertion of the device is detected on the basis of a detection signal of the adaptor mount/insertion detection unit 238, the process proceeds to Step S58 to execute processing to start supplying a power-feeding current for electromagnetic induction from the charge control unit 34 to the fixed NFC antenna/IC 228. Thereafter, the process proceeds to Step S60.

(Omitted)

[0068]

In Example 4 in FIG. 13, when the width of a bottom surface in an insertion direction is large, the width of a cutout hole 354a is large, accordingly. Therefore, an IC card is likely to be inserted by mistake. When an IC card is inserted wrongly in Example 4, an antenna coil of the IC card NFC antenna and an antenna coil of the fixed NFC antenna/IC of the charge/data transfer station may approach each other in parallel.

[0069]

FIG. 14 is a side cross-sectional view regarding the adaptor having the cutout hole 354a wider than the width of an IC card, showing a structure for preventing the antenna coil of the IC card NFC antenna and the antenna coil of the fixed NFC antenna/IC of the charge/data transfer station from approaching each other in parallel

when the IC card is inserted wrongly. Components the same as those in FIG. 13 are assigned the same reference numerals, and are not further explained unless necessary. As is obvious from FIG. 14, the adaptor 354 to which the IC card 10 may be inserted wrongly is configured so that a bottom surface of the cutout hole 354a is inclined.

[0070]

FIG. 14 (A) illustrates a case where a proper digital camera 302 has been inserted, wherein the digital camera NFC antenna 324 is guided close to a position corresponding to the fixed NFC antenna/IC 328. When the proper digital camera 302 is inserted, the thickness thereof is coincident with the cutout hole 354a, thereby preventing the digital camera from entering below a predetermined position even when a bottom surface of the cutout hole 354a is inclined. FIG. 14 (B) illustrates a case where the IC card 10 is inserted wrongly. The thin IC card 10 slips downward along the inclination of the bottom surface of the cutout hole 354a, the IC card NFC antenna 46 is separated from the fixed NFC antenna/IC 328 of the charge/data transfer station, and parallelism between the antenna coils is lost, thereby preventing generation of strong electromagnetic induction.

(Omitted)

[0074]

In Example 5 in FIG. 15, the digital camera NFC antenna 424 is disposed on a side surface in an insertion direction of the digital camera. Even when the IC card as shown in FIG. 15(C) is inserted in the same direction as the digital camera 402, the antenna coil of the card NFC antenna of the IC card 10 is not parallel to the antenna coil of the fixed NFC antenna/IC 428 of the charge/data transfer station 404. Thus, strong electromagnetic induction is not generated.

(Omitted)

[Description of symbols]

[0078]

24, 60, 260, 224, 324, 424 First NFC antenna

20 Rechargeable battery

2, 58, 202, 258, 302, 402 Mobile equipment

28, 228, 328, 428 Second NFC antenna

4, 104, 204, 304, 404 Battery charger

38, 48, 148, 254, 255, 354, 454 Protective means

Paragraphs [0014], [0020], [0023] to [0024], [0036] to [0042], and [0078] of the specification include descriptions about protective means (proximity sensor 38, personal

computer control unit 48) determining whether the approaching device is mobile equipment (chargeable device) or not, supplying a power-feeding current for electromagnetic induction when the device is mobile equipment, or stopping supply of the power-feeding current for electromagnetic induction when the device is an IC card.

Paragraphs [0049] to [0050], [0056] to [0062], [0068] to [0070], [0074], and [0078] include descriptions about protective means (adaptors 254, 255, 354, 454) permitting the first NFC antenna of the mobile equipment to approach in parallel the second NFC antenna of the battery charger and preventing the third NFC antenna of the IC card from approaching in parallel the second NFC antenna of the battery charger.

That is, the Originally attached specification, etc. discloses that the protective means (proximity sensor 38, personal computer control unit 48) "induces a current in the first NFC antenna of the mobile equipment by supplying a power-feeding current to the second NFC antenna of the battery charger" and "prevents the IC card from being destroyed by mistake by electromagnetic induction generated in the third NFC antenna of the IC card", while there is no description or indication about the protective means which prevents the IC card from being destroyed when the second NFC antenna induces electromagnetic induction in the first NFC antenna in any part of the Originally attached specification, etc.

In other words, the matter of "supplying the power-feeding current to the second NFC antenna of the battery charger for inducing the current in the first NFC antenna of the mobile equipment" is different from the matter of "preventing the IC card from being destroyed by mistake by electromagnetic induction generated in the third NFC antenna of the IC card". Thus, as described in the Amended invention, the above sentences connected to each other with the sentence "... the IC card when the power-feeding current is supplied to ..." are different from the matter described in the Originally attached specification, etc.

Since the matter added by the Amendment, "protective means configured to prevent the IC card from being destroyed by mistake by electromagnetic induction generated in the third NFC antenna of the IC card when the power-feeding current is supplied to the second NFC antenna of the battery charger for inducing the current in the first NFC antenna of the mobile equipment", is not described in the Originally attached specification, etc. and is not obvious from the Originally attached specification, etc., the Amendment introduces new technical matters in relation to the technical matters derived by summing up all the descriptions in the Originally attached specification, etc. Therefore, it cannot be said that the Amended Invention has been

made within the scope of matters described in the Originally attached specification, etc., and therefore it does not satisfy the requirements stipulated in the Article 17(2)(iii) of the Patent Act.

3 Closing on the Amendment

As above, the Amendment 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.

Therefore, the decision is made in accordance with the Conclusion of Decision to Dismiss Amendment.

No. 3 Regarding the Invention

1 The Invention

The Written amendment submitted on September 20, 2019 was dismissed as described above. The inventions according to the claims of the present application are specified by the matters recited in Claims 1 to 15 of the scope of claims amended by the written amendment submitted on March 6, 2019. The invention according to Claim 11 (hereinafter referred to as "the Invention") is as follows.

"[Claim 11]

A battery charger comprising an NFC antenna also supplying power for inducing electromagnetic induction in an NFC antenna of mobile equipment, a charger having a supply part for supplying a power-feeding current for electromagnetic induction to the NFC antenna also supplying power, and protective means configured to prevent electromagnetic induction from being generated wrongly from the NFC antenna also supplying power to an NFC antenna of an IC card."

2 Reasons for refusal stated in the examiner's decision

The reasons for refusal stated in the examiner's decision are as follows: since the invention according to Claim 11 of this application is an invention described in the following Cited Document 1 distributed or made available to the public through electric telecommunication lines before the application was filed, the Appellant should not be granted a patent for the invention under the provisions of Article 29(1)(iii) of the Patent Act. Since the invention according to Claim 11 of this application could have been easily made by a person ordinarily skilled in the art of the invention before the application was filed, on the basis of the invention described in the following Cited Document 1 distributed or made available to the public through electric

telecommunication lines before the application was filed, the Appellant should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act.

Cited Document 1: Japanese Unexamined Patent Application Publication No. 2014-225989

3 Cited Document

Cited Document 1 includes the following descriptions with drawings. The underlines were added by the body.

A. "[0004]

Qi (trademark) proposed by an industry group of wireless power transmission system WPC (Wireless Power Consortium) specifies a mechanism of a power-receiving device transmitting a control signal to a power-feeding device. In general, the control signal is transmitted from a power-receiving device to a power-feeding device by load modulation which modifies waveforms of signals emitted by the power-feeding device by modifying values of a dedicated capacitor or a resistor by the power-receiving device. Therefore, a device configured to integrate NFC and power transmission communicates a control signal for power transmission not by load modulation but by means of NFC, thereby removing a capacitor and a resistor, resulting in reduction of cost."

B. "[0013]

(Configurations of the power-receiving device and the power-feeding device)

Configurations of the power-receiving device 100 and the power-feeding device 200 according to this embodiment are described below. FIG. 1 and FIG. 2 show configuration examples of the power-receiving device 100 and the power-feeding device 200 according to this embodiment, respectively.

[0014]

The power-receiving device 100 and the power-feeding device 200 both include a common function part (common part 113). The power-receiving device 100 includes a power-receiving part 109 and a power supply part 111 in addition to the common part 113. The power-feeding device 200 includes a power transmission part 201 and a power supply part 202 in addition to the common part 113. The common part 113 includes, for example, a control part 101, a storage part 102, a data processing part 103, an operation part 104, an output part 105, a wireless LAN function part 106, a Bluetooth function part 107, an NFC part 108, and a shared antenna 110. All of the function parts are connected by a bus 112 for receiving and transmitting control information and

electrical signal, or the like."

C. "[0018]

In the power-receiving device 100, the power-receiving part 109 includes a power-receiving function of receiving electric power supplied from the power-feeding device 200. In the power-receiving device 100, the NFC part 108 and the power-receiving part 109 use a common antenna (shared antenna 110) to perform near-field communication and receive power in wireless power transmission with the power-feeding device 200, respectively. The shared antenna 110 is an antenna different from antennas of the wireless LAN function part 106 and the Bluetooth function part 107. When electric signals from the shared antenna 110 are blocked by control of the control part 101, for example, functions of the NFC part 108 are disabled. Electric power received in the power-receiving part 109 is accumulated in the power supply part 111 which functions as a rechargeable battery, for example.

[0019]

In the power-feeding device 200, the power transmission part 201 is a power-feeding function part which supplies electric power supplied from a commercial power source (power supply part 202) to the power-receiving device 100 wirelessly. In the power-feeding device 200, the NFC part 108 and the power transmission part 201 also perform near-field communication and supply power in wireless power transmission with the power-receiving device 100, respectively, by use of the common antenna (shared antenna 110). The shared antenna 110 is, as is the case with the power-receiving device 100, an antenna different from antennas of the wireless LAN function part 106 and the Bluetooth function part 107."

D. "[0024]

The power-receiving device 100 determines whether NFC communication has been established with the power-feeding device 200 (S401). The power-receiving device 100 determines whether it is in proximity to the power-feeding device 200 or not by use of a phenomenon that a magnetic field generated by radio waves of the power-feeding device 200 causes the power-receiving device 100 to generate electric signals when the power-receiving device 100 and the power-feeding device 200 are in proximity to each other, for example. The power-receiving device 100 determines that the NFC communication is available and has been established when they are in proximity to each other.

[0025]

When the NFC communication has been established (YES in S401), the power-receiving device 100 starts communication for receiving power by means of the NFC

communication. The power-receiving device 100 uses the NFC communication to confirm whether a required charging service (power transmission service) can be received or not (S402). In the confirmation, information as to whether a device on the other side (power-feeding device 200) has a power-feeding function or not and information on power-feeding voltage are exchanged. The processing of starting power transmission (S402) after establishment of the NFC communication may be automatically executed in the control part 101 of the power-receiving device 100 or may be executed in response to user operation on the operation part 104. The control part 101 may determine whether to start the processing automatically or to wait for user operation, on the basis of setting information stored in the storage part 102. The setting information may be set by user operation on the operation part 104. When the setting information is configured to start power transmission automatically, the control part 101 of the power-receiving device 100 confirms a voltage of the power supply part 111 when the NFC communication is established, for example, and executes the processing of S402 when the voltage is equal to or lower than a predetermined value."

E. "[0028]

When it is determined that HO is disabled (NO in S403), the power-receiving device 100 performs communication for subsequent power reception by means of NFC. In this case, the power-receiving device 100 confirms a state of the power supply part 111, calculates charge request information (at least one of capacity and time) (S410), and transmits the information to the power-feeding device 200 using the NFC (S411). After that, since wireless power transmission is performed in accordance with the charge request information, the NFC communication is not required. Thus, the control part 101 of the power-receiving device 100 cuts power supplied from the shared antenna 110 to the NFC part 108, and disables the NFC part 108 (S412). Then, wireless power transmission is executed in accordance with the charge request information (not shown), and the process ends."

F. "[0030]

In general, wireless LAN can communicate a larger capacity of data at a higher speed than BT. Accordingly, for example, when the amount of data to be transmitted or received is larger than a predetermined volume, the power-receiving device 100 may select wireless LAN to be connected. For example, when the power-receiving device 100 is a digital camera and the power-feeding device 200 is a data accumulation device, in backing up image data by communication during charging, the power-receiving device 100 may select wireless LAN as a communication system of a hand-over destination. When the amount of data to be transmitted or received is small, such as

only control signals of wireless power transmission, the power-receiving device 100 may select BT, which consumes less power, as a communication system of a hand-over destination."

G. "[0035]

After the processing of connecting to a HO destination ends (S405), communication for wireless power transmission is conducted by a communication system of the HO destination. Thus, the control part 101 of the power-receiving device 100 cuts power supplied from the shared antenna 110 to the NFC part 108, and disables the NFC part 108 (S406). After the NFC part 108 is disabled (S406), the power-receiving device 100 requests the power-feeding device 200 to start supplying power by use of the communication system of the HO destination (S407). Specifically, the power-receiving device 100 transmits to the power-feeding device 200 a payload of BT or Wireless LAN including a power-supply start request notification. The power-receiving device 100 monitors whether charging has been completed or not (S408), and requests, when the charging has been completed (YES in S408), the power-feeding device 200 to stop supplying power by use of the communication system of the HO destination (S409). Specifically, the power-receiving device 100 transmits to the power-feeding device 200 a payload of BT or wireless LAN including a power supply stop request notification."

H. "[0044]

The power-receiving device 100 transmits a power-feeding start request to the power-feeding device 200 by wireless LAN communication (F506). On receipt of the power-feeding start request, the power-feeding device 200 start supplying electric power (wireless power transmission) to the power-receiving device 100 (F507, F508). The power-feeding device 200 continues, when the power transmission is normally performed, supplying electric power until receiving a power-feeding stop request from the power-receiving device 100. The power-receiving device 100 may determine whether electric power is normally received during receiving the power and feed back a result of the determination to the power-feeding device 200 at a predetermined time interval. In this case, the power-feeding device 200 may stop supplying power when notified of an abnormal state. When the power-receiving device 100 detects charge completion after the power-feeding device 200 continuously supplies electric power (wireless power transmission) for a predetermined period (F509), the power-receiving device 100 transmits a power-feeding stop request to the power-feeding device 200 by wireless LAN communication (F510). The power-feeding device 200 stops supplying electric power to the power-receiving device 100 on receipt of the power-feeding stop

request."

According to C and F, a digital camera is presented as an example of the power-receiving device 100 which receives wireless power.

According to C, the power-feeding device 200 executes near-field communication and wireless power transmission with the power-receiving device 100, respectively, by use of the shared antenna 110.

According to C and FIG. 2, the power supply part 202 and the shared antenna 110 are connected by wiring, and electric power (power-feeding voltage and power-feeding current) for wireless power transmission is supplied from the power supply part 202 to the shared antenna 110.

According to D, E, and G and H, start/stop of supplying power from the power-feeding device 200 is controlled on the basis of a request from the power-receiving device 100.

Considering the descriptions in A to H and drawings comprehensively, Cited Document 1 describes the following invention (hereinafter referred to as "Cited Invention").
"A power-feeding device 200 which executes near-field communication and wireless power transmission with a power-receiving device 100 being a digital camera, respectively, by use of a shared antenna 110, supplies a power-feeding current for wireless power transmission from a power supply part 202 to the shared antenna 110, and controls start/stop of supplying power on the basis of a request from the power-receiving device."

4 Comparison / judgment

The Invention and the Cited Invention are compared.

(1) The "shared antenna 110" in the Cited Invention, which performs NFC communication and power transmission by use of the shared antenna 110, corresponds to the "NFC antenna also supplying power" in the Invention. According to "3 A.", since the Cited Invention is based on the assumption of wireless power transmission of

Qi standard, the "wireless power transmission" in the Cited Invention corresponds to the (wireless power transmission by) "electromagnetic induction" in the Invention.

(2) The "power supply part 202" which "supplies a power-feeding current for wireless power transmission" in the Cited Invention corresponds to the "supply part" in the Invention.

(3) According to "3 C.", since electric power wirelessly transmitted from the power-feeding device is accumulated in the power supply part 111 (function as a rechargeable battery) of the power-receiving device, the "power-feeding device" in the Cited Invention corresponds to the "battery charger" in the Invention.

(4) In the Cited Invention, the configuration to "controls start/stop of supplying power on the basis of a request from the power-receiving device", means that electric power is not supplied from a power-feeding device to a power-receiving device which does not need power reception or has no power-receiving function. In the configuration, even if an IC card having an NFC antenna and no power-receiving function approaches, no request signal is transmitted from the IC card and electromagnetic induction is not generated. Thus, the configuration corresponds to the presence of the "protective means configured to prevent electromagnetic induction from being generated wrongly" in the Invention.

Regarding this point, the Appellant alleges in the written opinion dated March 6, 2019 that the power-feeding device 200, in the invention described in Cited Document 1, only executes power transmission on the basis of a request from the power-receiving device 100 and the Cited invention is different from the Invention. However, as indicated in the above judgment, the invention described in Cited Document 1 is configured not to supply electric power to a power-receiving device which does not issue a request, as a result of controlling start/stop of power supply on the basis of a request from a power-receiving device, thereby "preventing electromagnetic induction from being generated wrongly". Thus, we do not recognize any different features from the Cited Invention regarding this point. Therefore, the Appellant's allegation cannot be accepted.

Therefore, the Invention is an invention described in Cited Document 1.

No. 4 Closing

As described above, since the Appellant should not be granted a patent for the Invention under the provisions of Article 29(1)(iii) of the Patent Act, the application should be rejected without examining other claims.

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

June 30, 2020

Chief administrative judge: SAKAI, Tomohiro
Administrative judge: AKAHO, Yoshiki
Administrative judge: IGARASHI, Tsutomu