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(54) A communication game system

(57) In a new communication game system using communication, two kinds of communication game devices are realized with the same hardware and by differentiating their active modes. Communication between a communication game device of the first kind and a communication game device of the second kind is made by differentiating the transmitting frequency of the first kind device and the transmitting frequency of the second kind device from each other. A unmodulated pulse is transmitted at a specified frequency, and the pulse duration is changed with message. When a communication game device of the second kind receives a signal having a message from the communication game device of the first kind, the device of the second kind makes an annunciation and transmits a responding signal if the received message is in accord with the message of its own. The communication game device of the first kind make an annunciation when it receives a responding signal.

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Description

Field of the Invention

[0001] The present invention relates to a communication game system, in particular, a communication game system that gives considerable thrills because success or failure of a communication depends on chance.

Prior Art

[0002] Many game systems are known that are controlled by a computer, such as video entertainment systems. However, no game systems are known in which communication itself is the game content, and in particular, the success or failure of communication depends on chance. If such a game system is provided, players will be able to genuinely enjoy success or failure of communication itself as a game.

Summary of the Invention

[0003] One object of the present invention is to provide a communication game system with which players can enjoy success or failure of communication itself as a game.

[0004] The present invention is a communication game system comprising a communication game device of a first kind and a communication game device of a second kind,

each of said communication game device of the first kind and the second kind comprising a transmitter, a receiver, a battery power supply, an input switch of message, an annunciator, a microprocessor and a housing, wherein said communication game device of the first kind transmits its own message signal inputted from the input switch from the transmitter and after that annunciates in response to receiving a signal containing a message same to that of the said device of the first kind, and wherein said communication game device of the second kind, in response to receiving a signal containing a message same to that of the said device of the second kind, makes an annunciation and transmits its own message signal with the transmitter.

[0005] Preferably, the annunciator consists of an LED and a sound generator.

[0006] Preferably, both the communication game device of the first kind and the communication game device of the second kind comprise the same battery power supply, input switch of message, annunciator and microprocessor,

the transmitting frequency of the transmitter of the communication game device of the first kind is the

same to the receiving frequency of the receiver of the communication game device of the second kind,

the transmitting frequency of the transmitter of the communication game device of the second kind is the same to the receiving frequency of the receiver of the communication game device of the first kind, both the communication game device of the first kind and the communication device of the second kind further include a switch for switching application between as the communication game device of the first kind and as the communication game device of the second kind,

said microprocessor is provided with two modes, one for the communication game device of the first kind and the other for the communication game device of the second kind, and the mode of said microprocessor is switched by said switch.

[0007] Preferably, the communication game device of the first kind and the communication game device of the second kind have transmitting frequencies, and

each transmitting signal consists of a pulse of a specified duration, and the pulse duration or width of said pulse is varied with message.

[0008] Preferably, each of the communication game device of the first kind and the communication game device of the second kind further includes a power switch, and

in said microprocessor further includes an automatic power-off means for measuring time after the turn on of power and for turning off the power after passage of a specified time.

[0009] Preferably, the microprocessor of the communication game device of the second kind has two modes, one an active mode for making the CPU therein active, and the other a hold mode for making the CPU therein inactive, and further includes a means for shifting the microprocessor to the active mode in response to receiving a signal from the communication game device of the first kind.

[0010] Preferably, the microprocessor of the communication game device of the first kind has two modes, one an active mode for making the CPU active, and the other a hold mode for making the CPU therein inactive, and

further includes a means for shifting the microprocessor from the hold mode to the active mode every specified time period and shifting the microprocessor from the active mode to the hold mode after making the transmission of the message in the

active mode and waiting for a specified time in a state for receiving a message from a communication game device of the second kind.

[0011] Preferably, said annunciator of each of the communication game device of the first kind and the communication game device of the second kind announces reception of a message signal different from the message of the own device, and

the communication game device of the second kind transmits its own message signal from the transmitter thereof on reception of a message signal different from that of the device.

[0012] In the communication game system of the present invention, the communication game devices are divided into those of the first kind and those of the second kind. The devices of the first kind are active and can appeal to the devices of the second kind. The devices of the second kind are passive and they can only respond to the devices of the first kind. The communication is not for conversation or the like, and is limited to transmitting a simple message. If the message of the device and a message received are in accord with each other, the device will announce that. Even if the messages are in accord with each other, the communication never develop into a conversation or the like, and the player can leave the game at any time by simply turning off the power of the device.

[0013] To allow easier fabrication of the communication game devices, the devices of the first kind and the devices of the second kind are common from the viewpoint of hardware. The devices of the first kind and the devices of the second kind are differentiated from each other by switching the mode of the microprocessor and switching the frequencies of the transmitter and the receiver.

[0014] The content of communication is limited to transmission and reception of simple messages. When messages are indicated by, for example, durations of an unmodulated carrier, the communication can be made very easily.

[0015] To assure operation for about several tens of hours with dry cells, etc., it is desired that the power is automatically turned off after passage of a specified time measured from the turning-on of the power. Moreover, use of electric power can be economized by shifting the microprocessor of the second kind device from the hold mode into the active mode upon signal reception. Furthermore, use of electricity can be economized by periodically shifting the microprocessor of the first kind device into the active mode to transmit signal and wait for reception of a responding signal, then making the processor inactive in the hold mode till next transmission.

[0016] With the communication game system of the present invention, players genuinely enjoy whether they

have successful communication or not as a game. It is not relevant to the game whether a player has many topics of conversation. Anyone can join the game. The object of the game is to check whether a counterpart of communication is within the effective communication range. Moreover, to enhance expectation and dependence on chance, a simple message is added to a signal to be communicated and accord of such messages is a key to success in communication. Keys of the game are whether a counterpart is within the effective communication range and whether messages are in accord with each other. These factors depend much on chances, and the rule is quite simple. Thus the game is thrilling and gives the players much expectation.

Brief Description of the Attached Drawings

[0017]

Fig. 1 is a block diagram of a communication game device of an embodiment.

Fig. 2 is a perspective view of the communication game device of the embodiment.

Fig. 3 is a control flow-chart of the communication game device for women of the embodiment.

Fig. 4 is a control flow-chart of the communication game device for men of the embodiment.

Fig. 5 is a circuit diagram of the communication game devices of the embodiment.

Fig. 6 is a system configuration diagram of another embodiment.

Fig. 7 is a plan view of a communication game device of an optimal embodiment.

Fig. 8 is a block diagram of the communication game device of the optimal embodiment.

Fig. 9 is an operation flow-chart of the communication game device for women of the optimal embodiment.

Fig. 10 is an operation flow-chart of the communication game device for men of the optimal embodiment.

Fig. 11 is a communication wave diagram of the optimal embodiment.

Embodiment

[0018] With reference to Fig. 1 through Fig. 5, an embodiment will be described. Fig. 1 is a block diagram of a communication game device of the embodiment. The device comprises a transmitting antenna 1, a transmitter 2, a first converter 3 for parallel-serial conversion of data to be transmitted, a control 4 having a CPU being a microprocessor to have various controls, a display 5, a second converter 6 for serial-parallel conversion of data received, a receiver 7, a receiving antenna 8, and a power supply 9. The antennas 1, 8 may be provided by a single antenna.

[0019] Fig. 2 is a perspective view showing the

appearance of the communication game device. A display 20 being LEDs, etc. and a display/setting switch 21 are provided on the front. When the switch 21 is pushed, the indication on the display 20 changes from 0 to 9 sequentially. Thus a desired number can be set. Separate switches may be provided for setting and display, respectively. In the present case, however, the same switch is used for both switching indication and setting. For example, when the switch is pressed for a short period of 1 second or under, the indication changes, and when the switch is pressed for a longer period of two seconds or over, a number being displayed is set. Or when the display/setting switch 21 is pressed, a current preset value is displayed for a short time. If the switch 21 is pressed again during this display period, a next number will be indicated. In this way, new numbers are indicated one after another. When a desired number is indicated and it is left to stand, the number is set. With this arrangement, one switch 21 can make plural operations, and the number of parts can be reduced. On one side of the body, are provided a power switch 22 and a sound ON/OFF switch 23. On the top of the body, is provided an LED 24. If said sound switch 23 is turned off, the LED 24 turns on and off when a signal is received. 25 is a dry cell box 25 for, for example, two dry cells of AAA UM-4E.

[0020] Fig. 3 and Fig. 4 are control flow-charts of the communication game devices. Fig. 3 is a control flow-chart of a communication game device (G1TR) of a group 1 (for women), and Fig. 4 is a control flow-chart of a communication game device (G2TR) of a group 2 (for men). In the communication game device for women, when the power is turned on (ST1), desired circuits such as logic circuit and memory are initialized (ST2) and defaulted (ST3). Then, under this condition, a desired number is set through the switch 21 (ST4), and the control 4 stores this value as its own active mode (ST5). For both the communication game devices for women and for men, numbers are determined in advance to represent plural message contents such as "conversation" and "sing-along (karaoke)." Out of these numbers, one desired number is selected.

[0021] The control 4 outputs the message set by the number in the form of parallel data. The first converter 3 converts this parallel data into serial data, and the data is transmitted on a carrier of a frequency N (ST6). An identification code that is given to the communication game device is added to the message, and the identification code data is transmitted together with the above-mentioned data in the form of serial data.

[0022] When the radio wave transmitted is received by a transmission game device of the other group, if messages of the devices of both groups accord with each other, the receiving device will respond. On the part of the communication game device for women, to receive such a response, the device is switched to a receiving mode for a short period after the above-mentioned transmission (ST7). This cycle of transmission and

reception is repeated twice, and two seconds or so will suffice as the waiting time for one cycle (ST8, ST9). If the device for women receives a responding signal from the communication game device for men, the device for women receives the signal through the receiving antenna 8. The signal is demodulated by the receiver 7, and serial data after demodulation is converted into parallel data by the second converter 6 and fed into the control 4. The control 4 judges whether the identification code of the counterpart or the number contained in the received signal is in accord with an identification number of a counterpart communication game device or a message number that has been set in advance (ST10). If any accord is found, the control 4 will generate a sound or turn on the LED 24 (ST11).

[0023] In the communication game device G2TR for men, as shown in Fig. 4, the power is turned on (ST21), then circuits are initialized (ST22) and defaulted (ST23). After that, data are set (ST24 and ST25). Operations for these steps are similar to those of steps ST4, ST5 of Fig. 3, and are intended to set an identification number of a communication game device for women and a number corresponding to a desired condition such as conversation or karaoke. After setting, the device waits for a transmission from a communication game device for women, periodically repeating the receiving mode (ST26, ST27). When the device receives a signal, it judges whether the identification number of the counterpart game device and the preset condition contained in the received signal are in accord with its preset values (ST28). If any accord is found, the device will generate a sound or turn on the LED 24 (ST29) and transmit a response signal indicating the reception (ST30). Then the device will receive a response from the counterpart (ST31, ST32).

[0024] With such an arrangement, if both the counterpart's identification number and message are judged to be in accord with the device's preset conditions or if the counterpart's message is judged to be in accord with the device's message, the player will be notified of a successful communication by means of a sound or the LED 24. This embodiment can be modified in various ways. For example, it may be arranged in such a way that, in place of inputting an identification signal of a counterpart in advance, when a signal is received, a sound is generated and the number of the transmitting device is displayed, and the player can decide whether to transmit a response or not after checking the display.

[0025] Fig. 5 is a circuit diagram of the communication game devices. 51 denotes a CPU being a microprocessor. RA0~ RA4 and RB0 are input ports. RB1 ~ RB7 are output ports that drive, for example, a 7-segment LED display 52. A crystal resonator 53 generates clock signals, and a switch 54 is used to switch over between LED display and sound notification. A transmitter 55 transmits a signal that comes from the CPU 51. A receiver 56 amplifies a signal received and inputs the amplified signal into the CPU 51. 57 is a power supply.

58 is a for men/for women selector switch. As shown in Fig. 2, it can not be manipulated from the outside. The same board is used for both the communication game device for men and the communication game device for women. L1 through L4 are coils, and C1 and C2 are variable capacitors. BZ is a buzzer for generating sound. The variable capacitors C1, C2 switch the resonant frequencies of resonance circuits using coils L2, L1, respectively, to set the transmitting frequency of the device for women (the receiving frequency of the device for men) at, for example, 300 MHz, and the transmitting frequency of the device for men (the receiving frequency of the device for women) at, for example, 315 MHz.

[0026] Fig. 6 is a block diagram of another embodiment in which all the receiving frequencies of the respective communication game devices are set to differ from each other, and in the transmitter of each communication game device, the transmitting frequency is determined by a frequency synthesizer. The frequency synthesizer can switch from one oscillation frequency to another. If a player having a communication game device of one group selects a specific communication game device of the other group, as the receiving frequency of the counterpart communication game device selected is known in advance, that frequency will be set as the transmitting carrier frequency, and the identification code of the device and a question to the counterpart will be transmitted. This radio wave transmitted can be received by only the specific selected counterpart communication game device. It can not be received by other radio communication devices. The player who has the radio communication device that receives this signal has inputted a specific radio communication device identification code. Thus the device will transmit a responding signal only when the device detects the same identification code in the received signal. This responding signal is controlled by the frequency synthesizer oscillator of the radio communication device so that its frequency is in accord with the receiving frequency of the counterpart.

[0027] The communication game device for men is provided with a memory for storing a code that corresponds to a predetermined question or message such as "I would like to talk with you now.", "I am busy now but will be free after one hour.", or "I would like to go to see a movie." The game device also stores identification information assigned to the respective units of the communication game device for women. The communication game device for men is also provided with an input means for specifying one of the questions or messages, a display means for indicating a number or a letter, and a means for adding the identification information assigned to the device to the above-mentioned inputted information and transmitting the information via a radio communication medium. On the other hand, the communication game device for women, which belongs to the other group, may be composed of a memory means

for storing identification information of the device itself, and a means for inputting and storing identification information selected from identification information assigned to the respective units of the communication game device for men and responding information relating to said selected identification information. And the communication game device for women may be arranged so that it judges whether the identification information of the communication game device for men contained in the received signal is in accord with said selected identification information of communication game device for men, and if they are in accord with each other, the device will add a response signal to the communication game device for men to the identification information of the device itself and transmit the information. With this arrangement, although the amount of data exchanged is limited, rich contents can be transmitted to the counterpart, and presence of an accord between the two players can be judged quickly.

[0028] With the embodiment, a variety of games can be played. For example, in a party, etc., a group of men and a group of women are formed. Both groups have the same number of people. Each person has the above-mentioned communication game device. Every man has a unit of the communication game device for men, and every woman has a unit of the communication game device for women. Everyone inputs the identification number of a person he or she likes together with a message. If a signal is transmitted by a communication game device for men, the signal is received by a communication game device for women, the identification number contained in the signal is judged to be in accord with the identification number of the communication game device for men that has been inputted, and both the messages agree with each other, the communication game device for women will transmit a responding signal. The probability is low that a person selects a counterpart he or she likes and selects a message and the counterpart selected will like the person and their messages will be in accord with each other. For every player, it is a considerable thrill to wait for occurrence of such a happening. This communication device may be used in a game played by many and unspecified persons. In this case, the identification number is omitted from the communication content of the above-mentioned case. Only messages are transmitted, and if a received message is in accord with a message that has been selected by the receiving device, the receiving device will transmit a responding signal. If this technique is used, communication will be accomplished only when a person holding a communication game device happens to come nearby and their messages are in accord with each other. Hence the game provides the players with considerable expectancy and excitement.

[Best Embodiment]

[0029] Fig. 7 through Fig. 11 show an optimal embod-

iment. In Fig. 7, 100 denotes a communication game device, 102 a housing, 104 a volume switch, and 106 a power switch. 108 denotes a mode switch that is used to select a mode such as conversation, sing-along or tea. 110 through 112 are LEDs for displaying an inputted mode. The player is allowed to select one mode out of three modes (messages). Whenever the mode switch 108 is pressed, the mode will shift to the subsequent mode. 114 denotes an LED for indicating accord. When the device succeeds in communication, if the mode of the counterpart device and the mode of the device accord with each other, this LED will turn on/off. 116 denotes an LED for indicating FIND. This LED 116 turns on/off when the communication game device has exchanged signals with another communication game device but the modes did not accord with each other.

[0030] The housing 102 holds, for example, two dry cells of AAA UM-4E (3 V) and the circuit of Fig. 8. The communication game device of the first kind (communication game device for women) and the communication game device of the second kind (communication game device for men) differ from each other only in transmitting and receiving frequencies, active mode of the built-in microprocessor, and the color of the housing 102.

[0031] Fig. 8 shows the block configuration of the communication game device 100. The same marks that are used in Fig. 5 denote the same components. 120 denotes a new microprocessor. 122 denotes a mode setter that receives a signal from a mode switch 108 to store a mode set and turn on one LED out of three LEDs 110 ~ 112. 124 denotes a power-off control that starts the operation of the microprocessor 120 when the power switch is turned on, and at the same time measures the time from the time point of turning on the power, and automatically turns off the power when the above-mentioned time reaches a specified value (for example, 30 minutes ~ 5 hours). 126 is a timer. 128 is a transmission & reception control. 130 is a wake-up control that shifts the microprocessor 120 to a hold mode, when transmission or reception is not needed, to reduce power consumption. Operations in the hold mode are limited to counting the time with the timer 126, turning on one of LEDs 110 ~ 112, receiving an input signal corresponding to wake-up and retaining data. 132 is an operation program storage being, for example, a ROM; the storage starts either the operation program for men or the operation program for women when a signal from the mode selector switch 58 is given. 134 is a control that controls the entire microprocessor 120. 136 is a driver that turns on/off a buzzer BZ and the accord indicating LED 114 or the FIND indicating LED 116 when communication is accomplished (in the following, without distinction as to accord of messages). The volume of the buzzer BZ can be varied through the volume switch 104.

[0032] Fig. 9 shows the operation of the communication game device for women. When the power switch 106 is turned on, the game device 100 starts to operate,

and at the same time its automatic power-off function starts to work. Thus, the power is turned off automatically after passage of 30 minutes or 5 hours. Next, the game device accepts mode setting through the mode switch 108, and one LED out of LEDs 110 ~ 112, which indicates the selected mode, is turned on. This LED is always on even in the hold mode. A job of the communication game device for women 100 is to transmit a signal, for example, once per second or once per ten seconds. When the timing of transmission is reached, the wake-up control 130 shifts the microprocessor 130 into the active mode, and for example, a signal is transmitted in the form of an unmodulated pulse wave at the frequency of 300 MHz. The pulse duration or width is 10 msec, 15 msec or 20 msec. Respective modes are indicated by these pulse durations. For the convenience of reception on the part of the reception side, transmission of a pulse of 10 ~ 20 msec wide is repeated three times at intervals of 1 second. For a specified time after completion of the transmission, for example, for 1 ~ 2 seconds, reception of a signal or signals is checked, and if there is no signal received, the microprocessor 120 will shift to the hold mode provided the time of automatic power-off has not been reached. After that, the microprocessor 120 will be kept in the hold mode except when there is a need of transmission or when a switch is manipulated to make a new setting. When a signal is received, the device checks whether the signal is in accord with the mode signal of its own, and if the signals are in accord with each other, the device will turn on the buzzer BZ and turn on/off the LED 114 to indicate that accord. If a signal is received but the modes are not in accord with each other, the device will turn on the buzzer BZ and turn on/off the LED 116 to indicate that. When the device receives a signal, the sequence returns to the step of transmission and repeats the cycle of transmission and reception till no signal is received.

[0033] Fig. 10 shows the operation of the communication game device for men. When the power is turned on, the automatic power-off function is turned on, and after completion of the setting, the device is kept in the hold mode till it receives a signal from a communication game device for women. When the receiver 56 of the device receives a signal, the microprocessor 120 wakes up. The microprocessor 120 checks whether the mode in the signal and the mode of the device are in accord with each other, and if the modes are in accord, the microprocessor 120 will turn on the buzzer BZ and turn on/off the LED 114. If the modes are not in accord with each other, the microprocessor 120 will turn on the buzzer BZ and turn on/off the LED 116. Next, the transmitter 55 transmits a pulse wave indicating the mode of the device in the form of the pulse duration. For example, the transmitting frequency of the communication game device for men is 315 MHz, and the transmission frequency of the communication game device for women is 300 MHz. On the other hand, the receiving frequency of the device for men is 300 MHz, and the

receiving frequency of the device for women is 315 MHz. The pulse durations indicating three modes 2 are 10 msec, 15 msec and 20 msec, respectively. Modification of frequencies of the devices for men and those for women is effected through variable capacitors C1, C2. As the selector switch 58 for setting the device either for men or for women is inside the housing 102, the user has no access to it. When the communication game device for men receives a signal from a communication game device for women, the device for men repeats the cycle of reception and transmission till the device receives no signal. If the device receives no more signal, the device will check whether the time of automatic power-off has been reached. If the time has not been reached, the device will shift to the hold mode.

[0034] Fig. 11 shows communication wave forms of the devices for men and for women. As described above, first a communication game device for women transmits a signal. The transmitting frequency of the device is 300 MHz, and the carrier is unmodulated. A mode (message) selected is added to the signal by changing the pulse duration in three steps in a range of from 10 to 20 msec. For the convenience of reception of the signal by the communication game devices for men, the same pulse wave is transmitted three times, and after that, the communication game device for women is kept in a receiving state for a specified time. If the device for women receives a signal during this period, the device for women transmits the signal again, repeating the cycle of transmission and reception till the device receives no signal.

[0035] The communication game device for men does not transmit a signal spontaneously. It wakes up when it receives a signal of 300 MHz in frequency from a communication game device for women. Then the device for men checks whether the mode in the received signal is in accord with its own mode, and turn on the buzzer BZ and turn on/off either the LED 114 or the LED 116. Next, the communication game device for men transmits a similar signal at the frequency of 315 MHz. The communication game device for women receives this signal and checks whether the mode contained in the signal is in accord with its own mode and make an annunciation.

[0036] As the communication is done with an unmodulated carrier, and a pulse duration is used as a signal, the protocol is quite simple and communication is easy. As transmission of the same content is repeated plural times (here three times), it is easy to receive the signal. The communication game device for men is woken up by reception of a signal, and the device can reliably capture the second or third pulse. Even if the device fails to measure the pulse duration of the first pulse wave, the device can reliably measure the pulse durations of the second and third pulse waves. As a result, communication can be done with extreme ease.

[0037] From the viewpoint of electric power, the microprocessor 120 is an energy-saving microprocessor driven at 3 V, and the automatic power-off function pre-

vents inadvertent loss of electric power. The power consumption by the microprocessor 120 is reduced by keeping the microprocessor 120 in the hold mode except when it has a job of transmission, reception, etc.

[0038] In the case of the embodiment, the effective communication range is, for example, 10 m or under. Hence, even when a successful communication is made, if the volume of the buzzer BZ is set low, the success on this side is not known by the counterpart. Moreover, the communication can be terminated at any time by turning off the power supply 106. In other words, when a successful communication is made, it remains to be a puzzle who initiated the communication. Even if a counterpart or counterparts are present, the probability of accord of the modes is 1/3. As described above, in the present communication game system, the players enjoy the success or failure of attempted communications as a game rather than making communications reliably, and the success or failure of communication is largely left to probabilities, and even when a successful communication is made, the counterpart remains to be puzzled. Thus, the present communication game system can provide highly thrilling games.

Claims

1. A communication game system comprising a communication game device of a first kind and a communication game device of a second kind,

each of said communication game device of the first kind and the second kind comprising a transmitter, a receiver, a battery power supply, an input switch of message, an annunciator, a microprocessor and a housing, wherein said communication game device of the first kind transmits its own message signal inputted from the input switch from the transmitter and after that annunciates in response to receiving a signal containing a message same to that of the said device of the first kind, and wherein said communication game device of the second kind, in response to receiving a signal containing a message same to that of the said device of the second kind, makes an annunciation and transmits its own message signal with the transmitter.

2. A communication game system of claim 1 characterized in that the annunciator consists of an LED and a sound generator.
3. A communication game system of claim 1 characterized in that

both the communication game device of the first kind and the communication game device of the second kind compris the same battery

power supply, input switch of message, annunciator and microprocessor,

that the transmitting frequency of the transmitter of the communication game device of the first kind is the same to the receiving frequency of the receiver of the communication game device of the second kind,

that the transmitting frequency of the transmitter of the communication game device of the second kind is the same to the receiving frequency of the receiver of the communication game device of the first kind,

that both the communication game device of the first kind and the communication device of the second kind further include a switch for switching application between as the communication game device of the first kind and as the communication game device of the second kind,

that said microprocessor is provided with two modes, one for the communication game device of the first kind and the other for the communication game device of the second kind, and

that the mode of said microprocessor is switched by said switch.

4. A communication game system of claim 1 characterized in that

the communication game device of the first kind and the communication game device of the second kind have transmitting frequencies, and

that each transmitting signal consists of a pulse of a specified duration, and the pulse duration or width of said pulse is varied with message.

5. A communication game system of claim 1 characterized in that

each of the communication game device of the first kind and the communication game device of the second kind further includes a power switch, and

in said microprocessor further includes an automatic power-off means for measuring time after the turn on of power and for turning off the power after passage of a specified time.

6. A communication game system of claim 5 characterized in that

the microprocessor of the communication game device of the second kind has two modes, one an active mode for making the CPU therein active, and the other a hold mode for making the CPU therein inactive, and fur-

ther includes a means for shifting the microprocessor to the active mode in response to receiving a signal from the communication game device of the first kind.

7. A communication game system of claim 6 characterized in that

the microprocessor of the communication game device of the first kind has two modes, one an active mode for making the CPU active, and the other a hold mode for making the CPU therein inactive, and

further includes a means for shifting the microprocessor from the hold mode to the active mode every specified time period and shifting the microprocessor from the active mode to the hold mode after making the transmission of the message in the active mode and waiting for a specified time in a state for receiving a message from a communication game device of the second kind.

8. A communication game system of claim 1 characterized in that

said annunciator of each of the communication game device of the first kind and the communication game device of the second kind annunciates reception of a message signal different from the message of the own device, and the communication game device of the second kind transmits its own message signal from the transmitter thereof on reception of a message signal different from that of the device.

FIG. 1

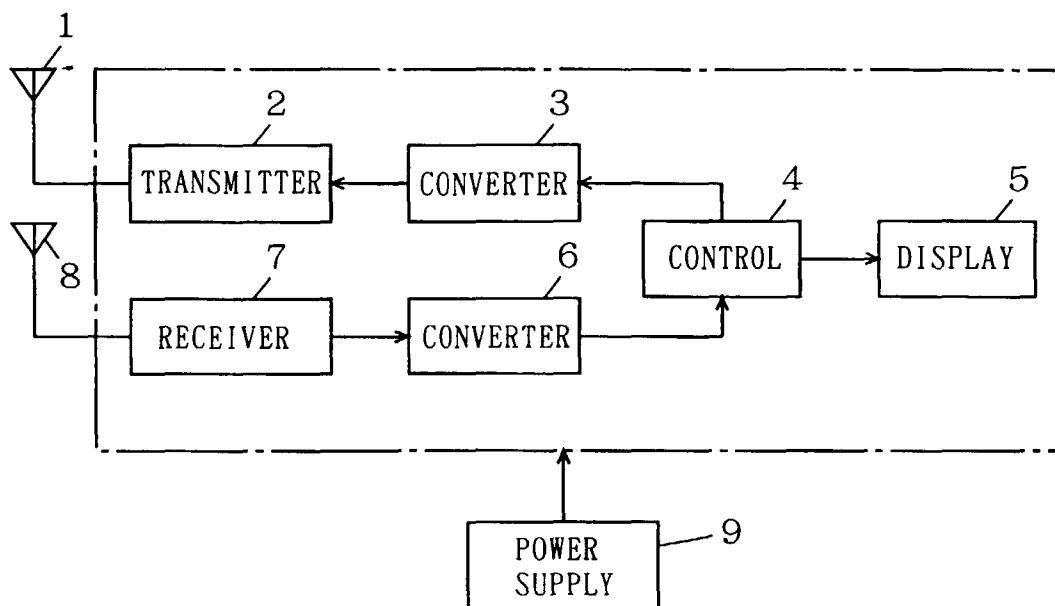


FIG. 2

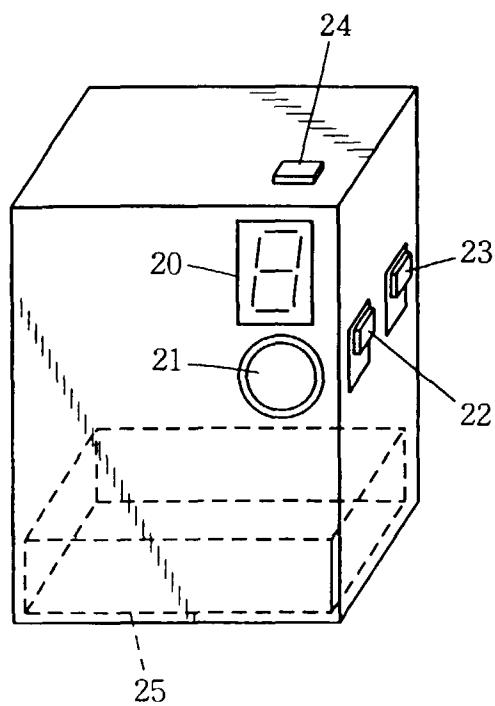


FIG. 3

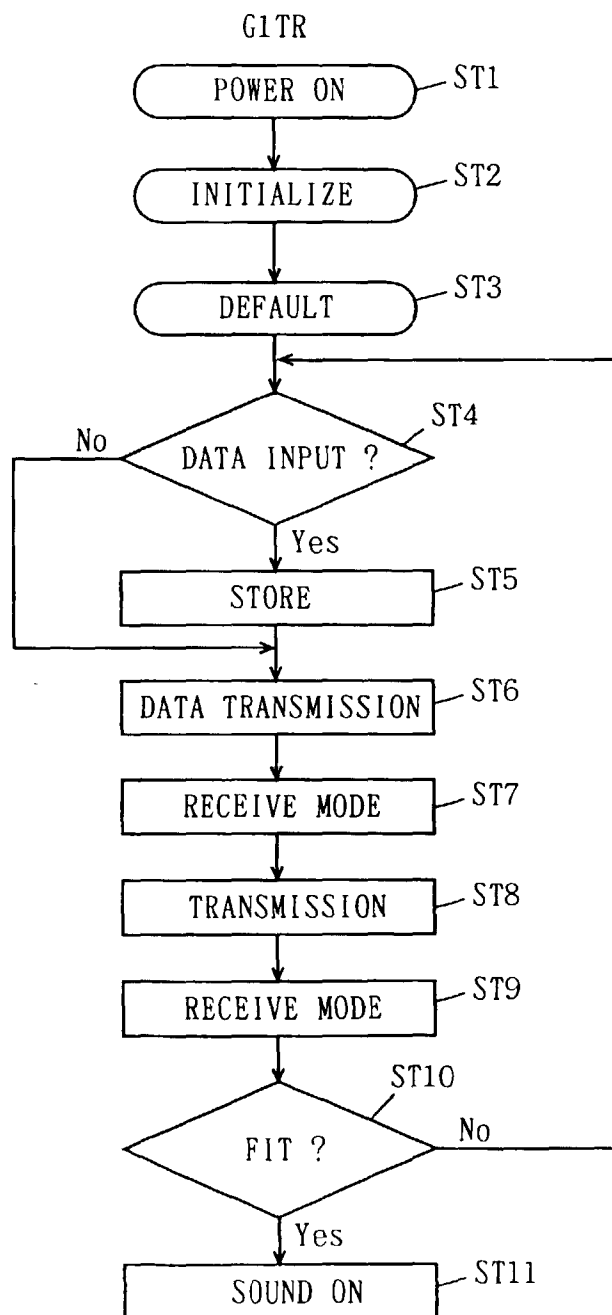


FIG. 4

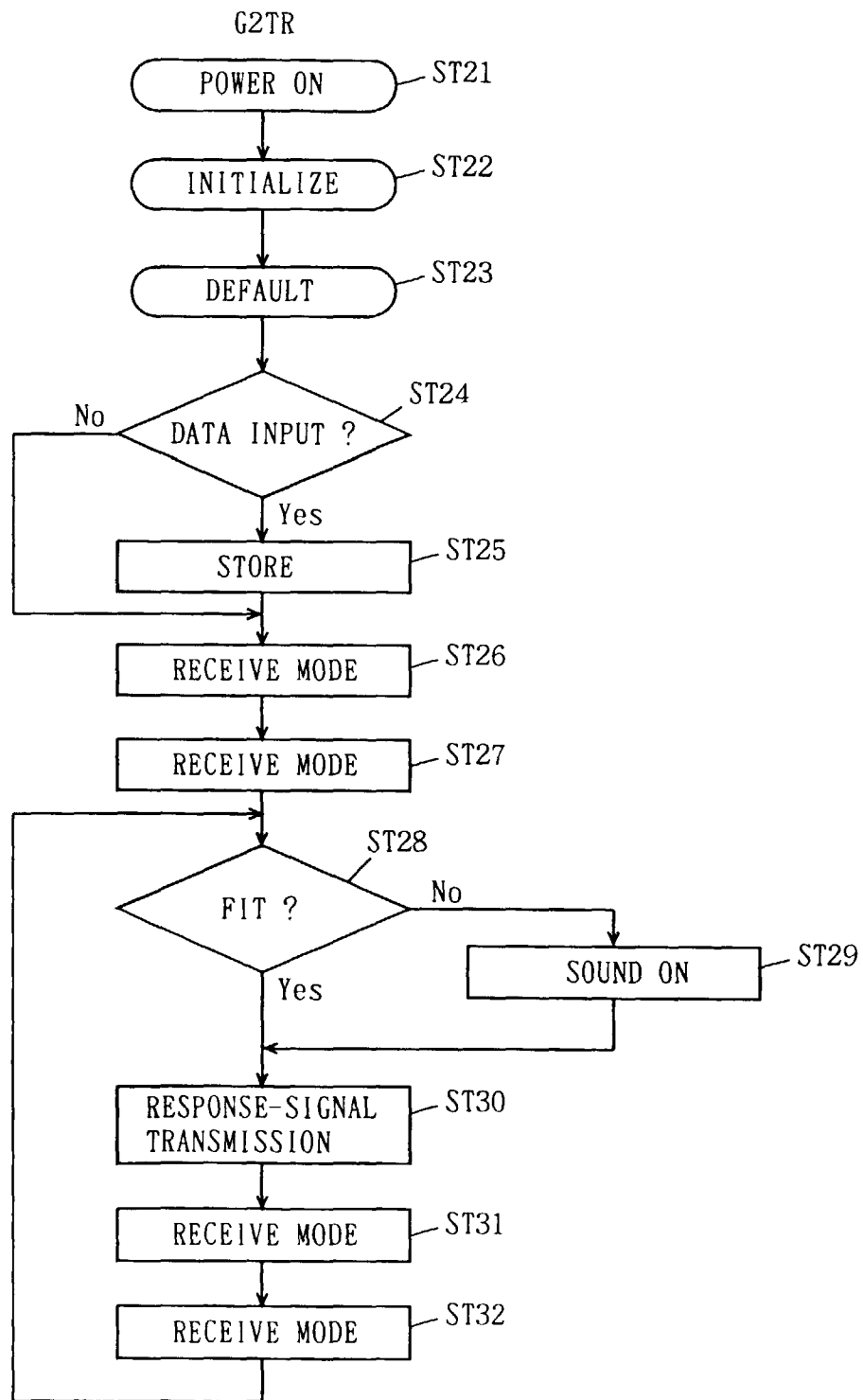


FIG. 5

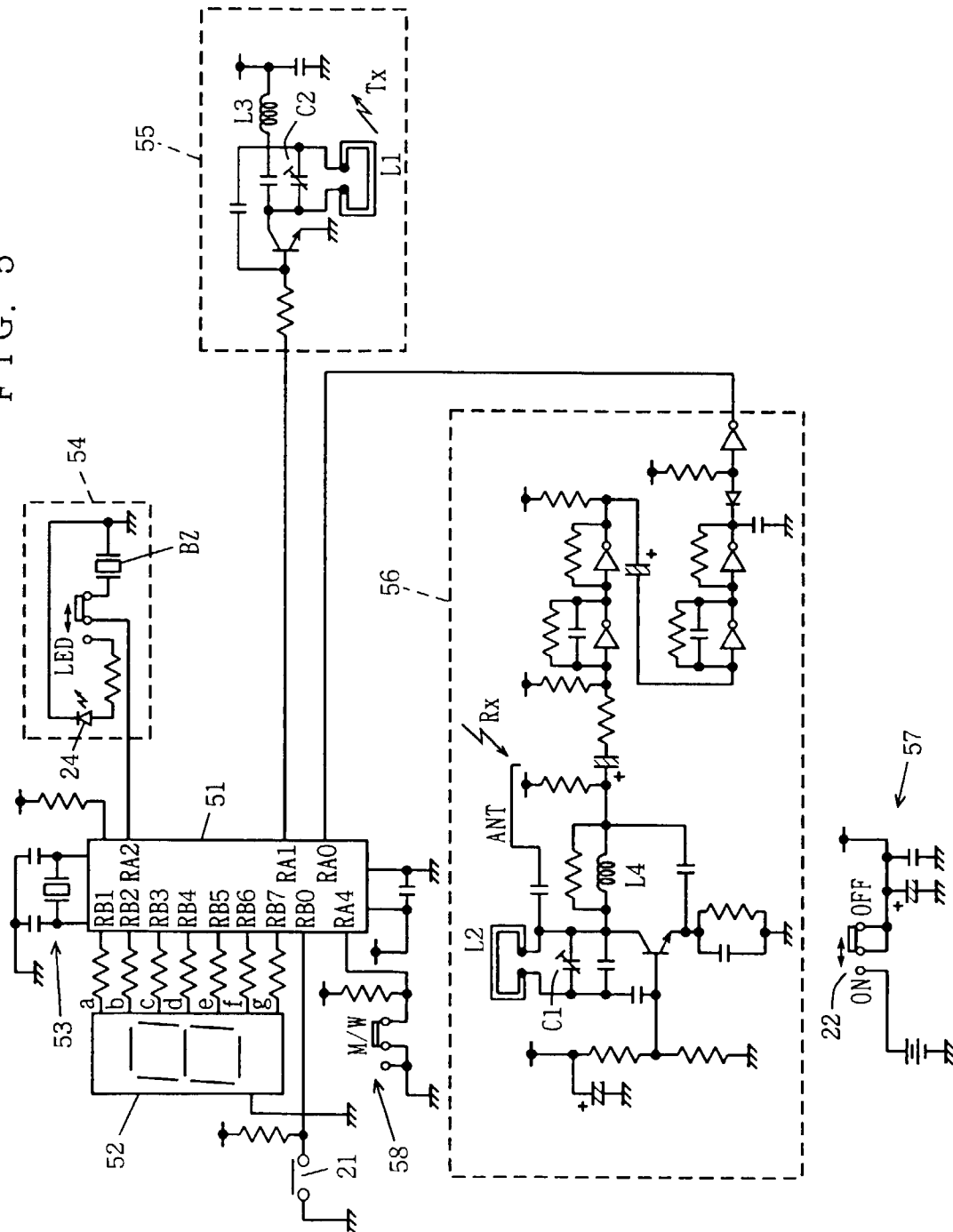


FIG. 6

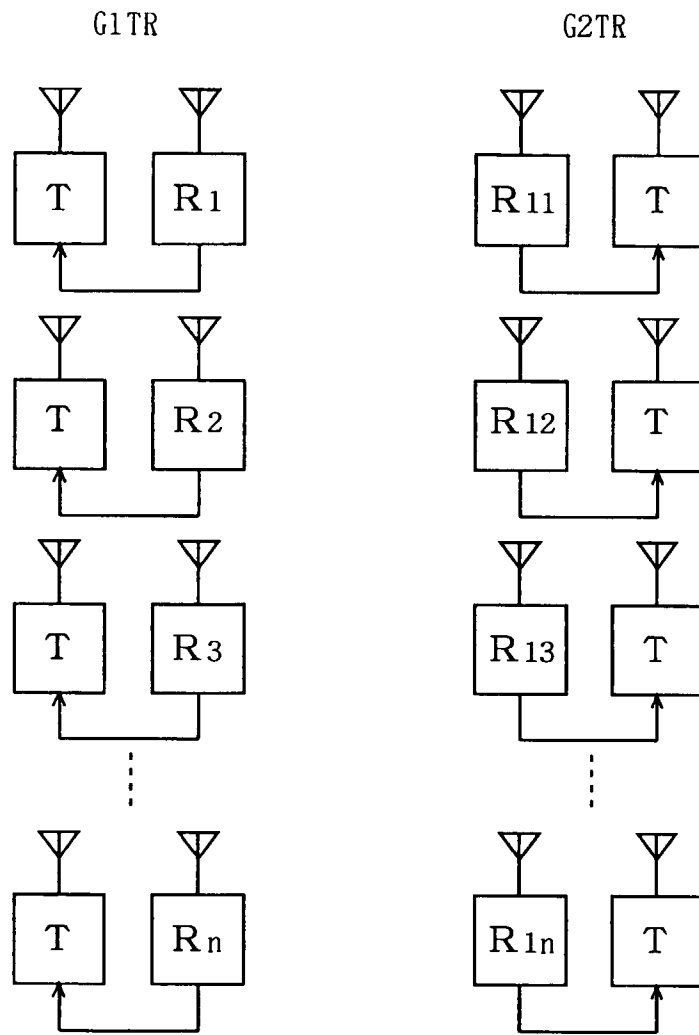


FIG. 7

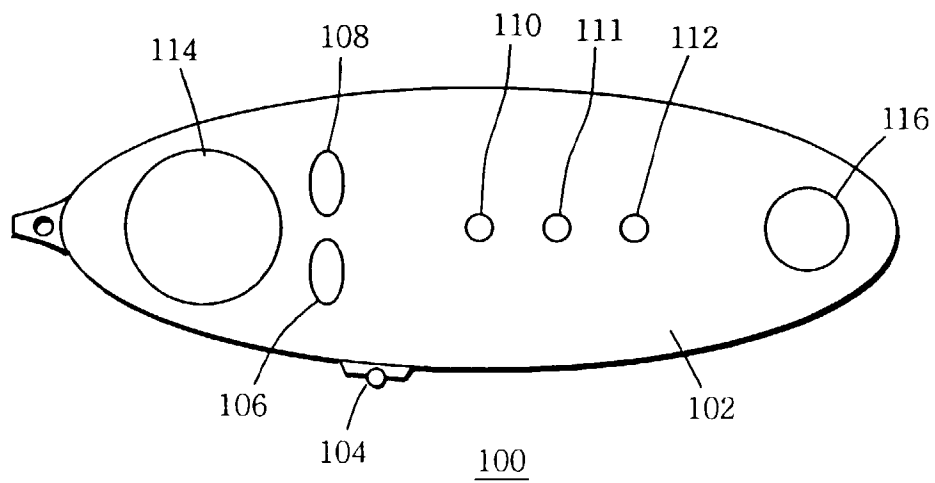


FIG. 8

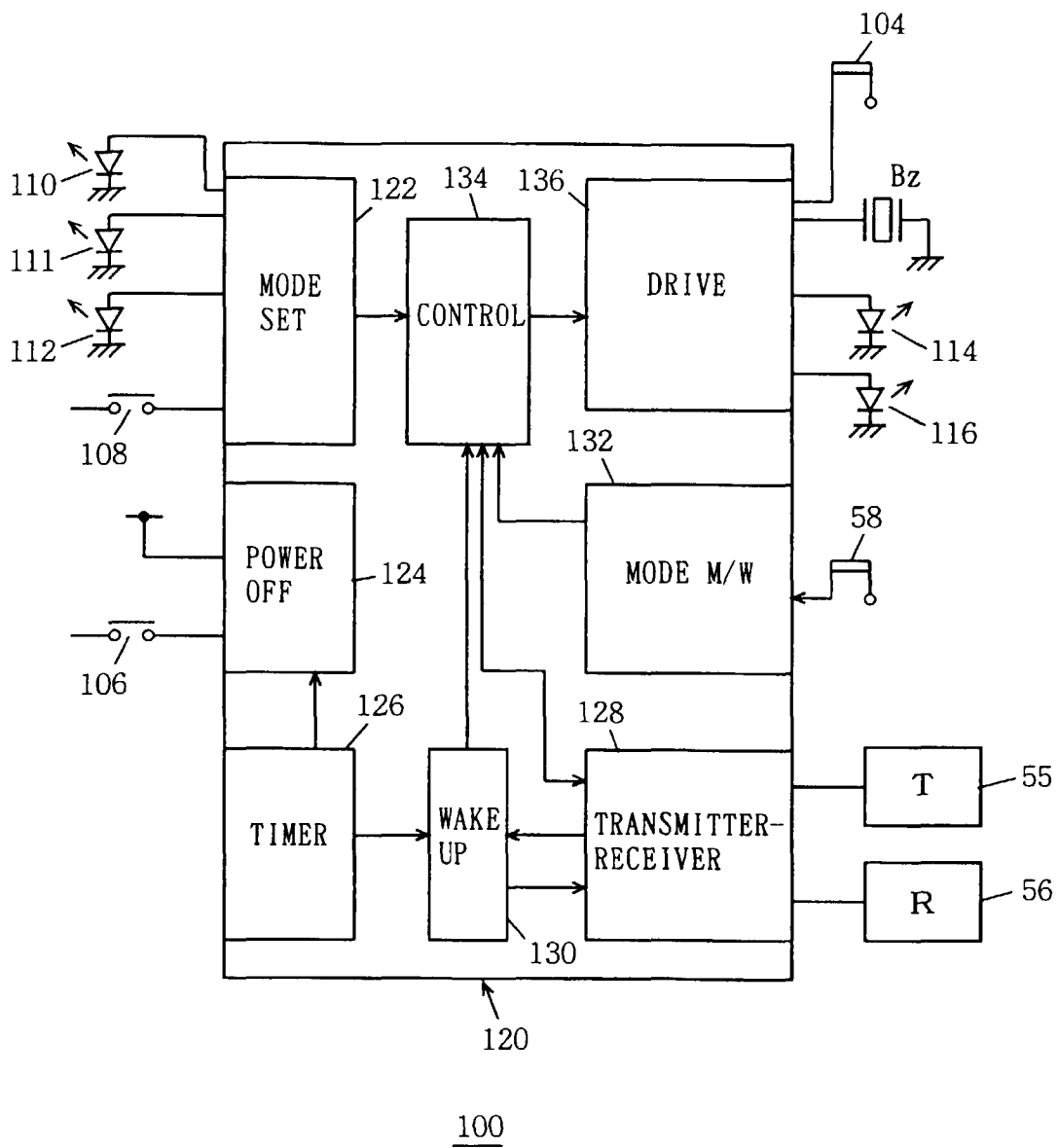


FIG. 9

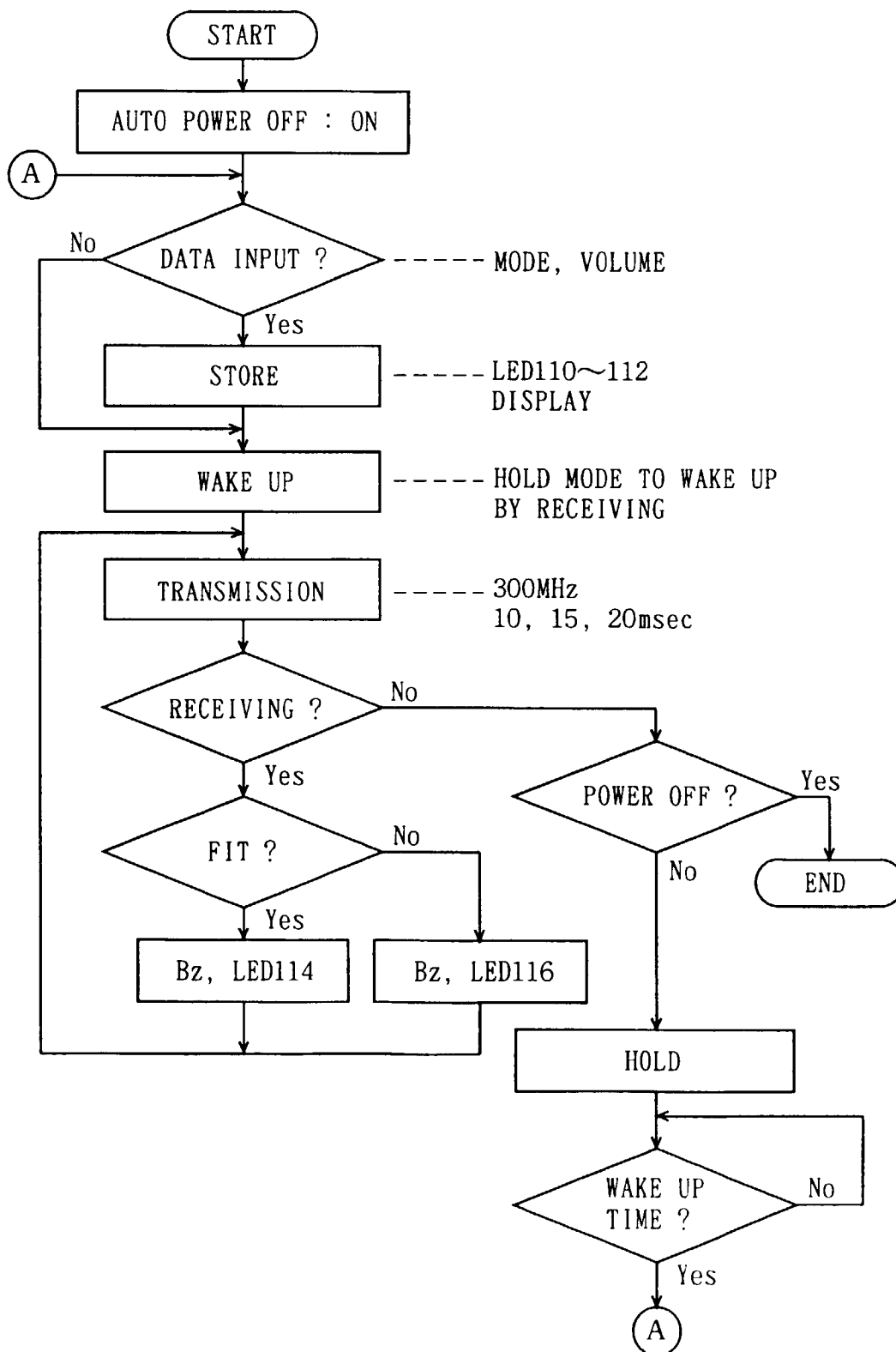


FIG. 10

