device **2**. A period when the marker signal is transmitted is defined as a time when it is sufficient to detect the user, e.g. 10 ms (100 Hz).

[**0155**] The communication device **310** that receives the marker transmitted by the ambience-side communication device transmits an ID (Identifier) as an identification signal.

[**0156**] At Step S**2**, the ambience-side communication device **310** receives the ID transmitted by the communication device **310**. The ambience-side communication device identifies the received ID and recognizes the communication device **310**.

[**0157**] When the communication device **310** transmits the ID, if necessary, the unit **310** transmits a command and data. Then, at Step S**3**, the ambience-side communication device receives the command and the data transmitted by the communication device **310**. The ambience-side communication device **310** identifies a transmission end of the received command and data and processes the command and the data based on the previously received ID.

[**0158**] At Step S**4**, the ambience-side communication device that processes the command and the data, determines whether or not data such as a processed result is (are) transmitted. When judging that the transmission should be required, proceeding to Step S**5**, the ambience-side communication device adds the destination end ID to the data to be transmitted, transmits the added one by way of the linear electrode of the input device **2**, and completes the communication processing.

[**0159**] At Step **4**, when judging that the transmission of the data is not required, the ambience-side communication device completes the communication processing.

[**0160**] Next, referring to a flow chart of **FIG. 27**, it will be explained about a half-duplex communication processing by the communication device **310** (the wearable end communication device) corresponding to the flow chart of the ambience-side communication device of **FIG. 26**.

[**0161**] The communication device **310** is set in a reception mode as an initial state. At Step S**11**, the communication device **310** receives the marker signal transmitted by the ambience-side communication device. The communication device **310** received the marker signal transmitted by the ambience-side communication device changes over the reception mode to a transmission mode. At Step S**12**, the communication **310** transmits an ID as identification information.

[**0162**] At Step S**13**, the communication device **310** that transmits the ID judges whether or not transmission of a command and data are required to the ambience-side communication device. When judging that determining the transmission is required, proceeding to Step S**14**, the communication device **310** transmits the command and the data.

[**0163**] At Step S**15**, the communication device **310** that transmits the command and the data, receives the data to which the destination end ID coincident with his/her own ID transmitted by the ambience-side communication device and completes the processing.

[**0164**] At Step S**13**, when judging that the transmission of the command and the data is not required, the communication device **310** proceeds to Step S**15** without any transmission of the command and the data.

[**0165**] Thus, the ambience-side communication device and the communication device **210** perform the half-duplex communication processing.

[**0166**] For example, in a communication protocol used for the above-mentioned communication, the number of data bit of 8 bits is allotted to the marker. The number of data bit of 16 bits is allotted to the ID of the communication device **310**, including an ECC (error correcting code) used for data error correction. The number of data bit of 32 bits is allotted to the command and the data to be transmitted to communication device **310**. The number of data bit of 32 bits is allotted to the ID and the data of the communication device **310** to be transmitted by the ambience-side communication device. Then, an amount of data of communication performed in a one cycle of the marker signal becomes 88 bits.

[**0167**] When a communication speed of communication performed between the communication device **310** and the ambience-side communication device is set to be 10 Kbps, a necessary time for communicating **88** bit data becomes 8.8 ms. Even when the cycle of the marker signal is 10 ms, the communication there between is possible. Further, when a communication speed is set by 100 Kbps, in order not to generate a communication error, to strengthen error correction operation and usage of a communication protocol to which a handshake function under a flow control is added, is possible.

[**0168**] **FIG. 28** shows an example of the other construction of the information system to which the present invention is applied.

[**0169**] A display screen **371** in which the linear electrodes are provided in a same manner as the input device **2** has a substrate of half-transparent material. The display screen **371** projects an image from backward by a projector **374**. When the user touches the linear electrode of the display screen **371** by way of the finger, etc., an inducing voltage is generates at the linear electrode. The display screen **371** supplies the inducing voltage to a signal processing circuit **372**. The signal processing circuit **372** calculates a coordinate on the display screen **371** in which the inducing voltage is generated, identifies the user, and supplies information of the processed result to the personal computer **373**. A personal computer **373** receives an input, generates a predetermined image, controls the projector **374**, and projects the image onto the display screen **371**, based on the information.

[**0170**] As above-mentioned, the personal computer **373** can project the information such as the coordinate at which the user touches the display screen **1** onto the display screen **371** being the input device, by controlling the projector **374**.

[**0171**] **FIG. 29** shows an example of the other construction of the information processing system to which the present invention is applied.

[**0172**] A display screen **391** in which linear electrodes are provided in a same way as the input device **2** is made of flexible material and provided on a wall **390**. For example, the display screen **391** forms the electrodes by patterning a polyamide substrate and vaporizing the electrode material onto plastic substrate and the like.