

[0148] The fixing portion 52 can be integrally formed with the case 100X. The fixing portion 52 is configured to come into contact with the second conducting wire 16 of the coaxial cable 10, whereby the whole case 100X can play a role as the grounding part.

[0149] Electronic parts are provided within the case 100X to operate the communication terminal.

[0150] First of all, the wireless communication unit 110 is provided to one side within the case 100X. The wireless communication unit 110 plays a role in receiving electric signals, e.g., signal that are transmitted by an external base station or a satellite.

[0151] The first connecting portion 35 is provided to one side of the wireless communication unit 110. The first connecting portion 35 plays a role in electrically connecting the coaxial cable 10 and the wireless communication unit 110 together.

[0152] Preferably, the first connecting portion 35 is configured to electrically communicate with the first conducting wire 12 of the coaxial cable 10.

[0153] The PCB part 28 is provided within the case 100X. The PCB part 28 provides a place where the parts for various operations of the communication terminal can be loaded. And, the PCB part 28 plays a role in electrically connecting the respective parts together.

[0154] The second connecting portion 45 is provided to one side of the PCB part 28. The second connecting portion 45 plays a role in electrically connecting the coaxial cable 10 and the PCB part 28 together.

[0155] In the above-explained method, if the case 100X is configured metallic, it can be used as a grounding part. Yet, if the case 100X is not formed of metal, it is unable to play a role as a grounding part. In this case, a separate grounding part is provided within the communication terminal.

[0156] FIG. 6 is a perspective diagram of one example of a coaxial cable assembly provided to a communication terminal according to one embodiment of the present invention. The coaxial cable assembly shown in FIG. 6 includes a coaxial cable, a grounding part, and the like. FIG. 7 is a diagram of one example of an interior of a communication terminal provided with the coaxial cable assembly shown in FIG. 6 according to one embodiment of the present invention. The aforesaid descriptions of the conducting wires and insulating layers are applicable to the following description in common.

[0157] A first connecting end portion 36 can be provided to each of both ends of the first conducting wire 12. A wire L is electrically connected to one end of the first connecting end portion 36. The first connecting end portion 36 plays a role in enabling an electric signal, which is carried from the wire L by the first conducting wire 12, to be delivered to another wire N disposed at the other first connecting end portion 36.

[0158] The first connecting wire 12 plays a role in carrying an electric signal. In particular, the first conducting wire 12 can be configured to carry a signal such as an RF signal.

[0159] The inner insulating layer 14 plays a role in insulating the first conducting wire 12 from the second conducting wire 16 which is explained as follows.

[0160] The second conducting wire 16 plays a role in carrying an electric signal. Yet, since the second conducting wire 16 is able to carry a signal different from the electric signal carried by the first conducting wire 12, it is able to reduce the number of cables needed within the communication terminal to provide the necessary electrical connections.

[0161] For example, in the electric signals carried by the coaxial cable provided to the communication terminal according to the present invention, if an electric signal carried by the first conducting wire 12 is an RF signal, the other electric signal carried by the second conducting wire 16 can be power or the like. Preferably, different types of electrical signals are carried respectively by the first and second conducting wires 12 and 16 and are processed by different components. Further, the different types of electrical signals can be carried simultaneously or one at a time respectively by the first and second conducting wires 12 and 16. In another example, the same electrical signal can be carried simultaneously by both the first and second conducting wires 12 and 16.

[0162] A circuit part 50 is provided to one end of the second conducting wire 16. For instance, the circuit parts 50 are provided respectively to both ends of the second conducting wires 16. The circuit part 50 enables the second conducting wire 16 to prevent the first conducting wire 12 from being affected by external electric waves while a different electric signal flows through the second conducting wire 16.

[0163] A second connecting end portion 42 is provided to the circuit part 50. For instance, the second connecting end portions 42 are respectively provided to the circuit parts 50 at both ends of the second connecting wire 16. A separate wire M for carrying an electric signal flowing via the second connecting wire 16 can be provided to one end of the second connecting end portion 42.

[0164] A grounding part 44 is provided to the circuit part 50. The grounding part 44 is connected to the second connecting end portion 42, thereby enabling the second connecting wire 16 to play a role in cutting off external electric waves and the like from the first connecting wire 12.

[0165] A capacitor 46 is provided to the circuit part 50. The capacitor 46 is provided between the second connecting end portion 42 and the ground part 44. And, the capacitor 46 enables the second connecting wire 16 to stably play a role as a connecting wire for carrying one electric signal and a shielding layer role in cutting off external electric waves and the like from the first connecting wire 12.

[0166] In particular, if the capacitor 46 is set to have a prescribed value suitable for a frequency of an RF signal, the second connecting wire 16 is grounded by carrying an electric signal in radio frequency view point from the first conducting wire 12.

[0167] For instance, if a frequency of an RF signal is 800 MHz, the capacitor 46 can be set to a value within a range between 100 pF and 1 nF.

[0168] Hence, the second conducting wire 16 is able to play a role as a shielding part preventing the first conducting wire 12 from being affected by external electric waves and the like. Of course, the second connecting wire 16 is cable to carry an electric signal while playing a role as the shielding part.

[0169] FIG. 7 is a diagram of one example of an interior of a communication terminal provided with the coaxial cable assembly shown in FIG. 6 according to one embodiment of the present invention.

[0170] Referring to FIG. 7, the first connecting portion 35 is provided to the wireless communication unit 110 within the communication terminal. The first connecting portion 35 is configured to communicate with the first conducting wire 12 electrically and enables an electric signal received from the wireless communication unit 110 to be transferred to the PCB part 28 and the like via the first connecting wire 12.