

image processing circuit **115** and is displayed on the display portion **11** through the display control portion **114**.

[0095] More specifically, transmitted from the outgoing caller, the character data or the image data are supplied to the modem circuit **106** through the RF circuit **105**. The modulated data are supplied to the baseband processing circuit **107**. The baseband processing circuit **107** extracts transmitted data such as the character data from the supplied signal to supply extracted data to the control portion **109**.

[0096] The image processing circuit **115** of the control portion **109** comprises a CPU, an ROM, an RAM, and a VRAM although illustrate is not made. The ROM stores an execution program, data necessary for various types of processing or character font data. The RAM is used as a work area. The VRAM is for displaying information on the display portion **11**.

[0097] On the basis of the data supplied from the baseband processing circuit **107**, the image processing circuit **115** creates character information or an image signal to be displayed on the display portion **11** (or the sub-display unit **19** as the need arises) and displays them on the display portion **11** through the display control portion **114**.

[0098] In addition, the foldable portable telephone set **10** may create message data in its own to transmit them. More specifically, in the foldable portable telephone set **10** according to this embodiment, dial operation keys such as 0-9, \*, # disposed in the console portion **12** are allocated with alphabetic characters or kana characters and the console portion **12** has the conversion key for alphabet/kana/kanji/numeral. By operating a group of the dial operation keys or the conversion key, it is possible to input the message data and to transmit them to the opposite party according to indication from the user.

[0099] The foldable portable telephone set **10** illustrated in **FIG. 5** can carry out dual reception of the speech signal and the image signal so as to receive and display an image from the opposite party and to transmit its own image during the telephone conversation. As a result, the foldable portable telephone set **10** may use as a television portable telephone. Under the circumstance, it is possible to use one of the front camera portions **17a** and **17b** as a television telephone camera (for picking up image information). In this event, the user may operate the console portion **12** to arbitrarily select one of the front camera portions left and right in accordance with the opposite party of telephone from left and right picking up directions. In this event, it is possible to distinguish between a left-handed expression and a right-handed expression (i.e. a severe expression for business, a gentle expression for private, or the like).

[0100] Referring to **FIGS. 8A through 8E**, the description will proceed to a foldable portable telephone set **10A** according to a second embodiment of this invention. **FIG. 8A** is a side view showing a closed state of the foldable portable telephone set **10A** according to the second embodiment of this invention. **FIG. 8B** is an elevational view showing the closed state of the foldable portable telephone set **10A** according to the second embodiment of this invention. **FIG. 8C** is a side view showing an opened state of the foldable portable telephone set **10A** according to the second embodiment of this invention. **FIG. 8D** is an elevational view showing the opened state of the foldable portable telephone

set **10A** according to the second embodiment of this invention. **FIG. 8E** is an elevational view showing the opened state of the foldable portable telephone set **10A** according to the second embodiment of this invention when a display portion is put into an oblong state.

[0101] The illustrated foldable portable telephone set **10A** mainly comprises a lower unit **20A** having the console portion **12**, an upper unit **30A** having the display portion **11**, and a hinge-type connector **13A** for joining the lower unit **20A** and the upper unit **30A** so as to open and close and for enable to connect the lower unit **20A** with the upper unit **30A** by changing a connection state of the upper unit **30A** with respect to the lower unit **20A**.

[0102] As shown in **FIG. 8E**, three components **20A**, **30A**, and **13A** are removable one another. The hinge-type connector **13A** has an upper connecting portion **13Aa** for connecting to the upper unit **30A**. In a state illustrated in **FIG. 8D**, the upper unit **30A** has first and third upper open slits **30Aa**, **30Ab**, and **30Ac** for inserting the upper connecting portion **13Aa** of the hinge-type connector **13A** at a lower side, a left side, and a right side thereof, respectively. The lower unit **20A** has a lower open slit **20Aa** for inserting the lower connecting portion **13Ab** of the hinge-type connector **13A** at an upper side thereof.

[0103] Each of the first through the third upper open slits **30Aa**, **30Ab**, and **30Ac** has a connector (not shown) for electrically connecting to the upper connecting portion **13Aa** of the hinge-type connector **13A** at the inside thereof. The lower open slit **20Aa** has a connector (not shown) for electrically connecting to the lower connecting portion **13Ab** of the hinge-type connector **13A** at the inside thereof.

[0104] In the illustrated foldable portable telephone set **10A**, the rear camera portion **18** is disposed in a rear face of the hinge-type connector **13A** as shown in **FIG. 8B**.

[0105] Referring now to **FIG. 9**, the description will proceed to an electric circuit portion of the foldable portable telephone set **10A** according to the second embodiment of this invention. The illustrated foldable portable telephone set **10A** is similar in structure and operation to the foldable portable telephone set **10** illustrated in **FIG. 5** except that the foldable portable telephone set **10A** includes a connector connection detecting portion **112A** in lieu of the rotation angle detecting portion **112** and the first through the magnetic sensors **111a** to **111c** are omitted. Components having functions similar to those illustrated in **FIG. 5** are attached with the same reference symbols.

[0106] Specifically, inasmuch as the display portion unit **32** in the foldable portable telephone set **10A** according to the second embodiment of this invention, which is different from the foldable portable telephone set **10** according to the first embodiment of this invention, does not rotate, the first through the third magnetic sensors **111a** to **111c** are unnecessary although they are necessary in the foldable portable telephone set **10** according to the first embodiment of this invention.

[0107] Although the open slots and the connecting portion **13Aa** are disposed in the display portion **11** side and the hinge-type connector **13A** side in the second embodiment, respectively, connection structure may be reversed.

[0108] While this invention has thus far been described in conjunction with a few embodiments thereof, it will now be