

card-type display device **10** is fitted in, or removed from, the PDA **20C**. When the card-type display device **10** is fitted in the PDA **20C**, some commands for the PDA **20C** may be input through the display section **12** of the card-type display device **10**. On the other hand, when the card-type display device **10** is used separately, the user can input any of various commands such as switching, selecting, enlarging or shrinking, and thumbnailing the images that are stored in the memory circuit **15**.

[0153] Since the card-type display device **10** is easily removable from the PDA **20C**, the small size and light weight of the card-type display device **10** can be made full use of. For example, the user can carry about the card-type display device **10** in which only necessary information (e.g., map, picture or other image information and schedule or other character information) is stored. Particularly when the user moves between two locations that are equipped with the PDA **20C** or any other electronic appliance to which the card-type display device **10** is connectable, the user needs to carry about just his or her necessary information. Thus, the user can take advantage of the portability of the card-type display device **10**, which is even smaller in size and lighter in weight than the PDA **20C**.

[0154] The card-type display device is naturally applicable for use in not just PDAs but cell phones as well. Even so, the cell phone and the card-type display device can also operate independently of each other. Furthermore, the card-type display device can also be used in game appliances and car navigation systems.

[0155] Various preferred embodiments of the present invention described above mainly relate to the display of image information. However, the information to be displayed on the card-type display device **10** does not have to be image information but may also be character information, for example. Data, commands and other information for use to control the electronic appliance **20**, to which the card-type display device **10** is inserted, may also be displayed on the card-type display device **10**.

[0156] The preferred embodiments of the present invention described above relate to a card-type display device and an electronic appliance compatible with such a device. However, the present invention is in no way limited to a display device with any particular size or shape but may be implemented as any display device to be insertable into, and removable from, an electronic appliance. For example, a sheet-type display device having a screen of an approximately A4 size may be used not just as a display device for a TV but also as a data display device or a display device for an electronic notebook with pen input device or an electronic magazine. Furthermore, if the sizes of those display devices are adjusted to standard paper sizes including A4, B5, A5 and B6, then the compatibility of the display devices would increase and/or the manufacturing cost thereof would decrease. Also, the display devices preferably have a reduced thickness because it would be easier to popularize those display devices as media to replace traditional paper sheets.

[0157] Various preferred embodiments of the present invention described above provide a display device that can be selectively connected to, and add display capabilities to, any electronic appliance on demand of the user and also provide an electronic appliance compatible with such a

display device. A display device according to any of the preferred embodiments described above can provide main or additional display capabilities for any conventional electronic appliance or unit just like a storage device (e.g., a PC card) with display capabilities. Among other things, a card-type display device according to a preferred embodiment of the present invention can be easily inserted to, and removed from, an electronic appliance and readily carried about, thus providing a highly convenient tool for users.

[0158] While the present invention has been described with respect to preferred embodiments thereof, it will be apparent to those skilled in the art that the disclosed invention may be modified in numerous ways and may assume many embodiments other than those specifically described above. Accordingly, it is intended by the appended claims to cover all modifications of the invention that fall within the true spirit and scope of the invention.

What is claimed is:

1. A display device which defines an attached state or a removed state with respect to an electronic appliance, the display device comprising:

- a display section;
- a driver for driving the display section;
- a transceiver for transmitting or receiving a signal to/from the electronic appliance; and
- a system controller for controlling the driver and the transceiver,

wherein at least portion of the transceiver and at least portion of the system controller are integrated together with the display section and the driver on the same substrate.

2. The display device of claim 1, wherein the display device is substantially in the shape of a rectangle in a plan view, and a portion of the display device, including one side of the rectangle, is inserted into a member of the electronic appliance that receives the display device in a removable state.

3. The display device of claim 1, further comprising a power supply and having the ability to conduct a display operation by itself even when the display device is in the removed state with respect to the electronic appliance.

4. The display device of claim 3, wherein the power supply is attachable to, and removable from, the display device.

5. The display device of claim 3, wherein the power supply includes a solar battery.

6. The display device of claim 3, wherein the power supply includes a fuel battery.

7. The display device of claim 3, wherein power is supplied to the power supply by electromagnetic induction while the display device is in the attached state with respect to the electronic appliance.

8. The display device of claim 1, further comprising a memory.

9. The display device of claim 8, wherein the memory is attachable to, and removable from, the display device.

10. The display device of claim 1, further comprising an imager.

11. The display device of claim 1, further comprising an input circuit, which generates an instruction signal in response to user's operation.