

I. General Architecture

Referring to FIG. 1, a side view of an exemplary embodiment of an electronic device 100 placed in a TABLET position is shown. Herein, the electronic device 100 comprises a display 110 placed in a first position and rotationally mounted on a body case 120 through a coupling member (not shown). Herein, the electronic device 100 operates as a tablet computer with the display 110 placed in a first (portrait) position.

More specifically, the display 110 contains a flat panel display 112 as well as all or part of the circuitry for generating a displayable image on the flat panel display 112. Examples of a flat panel display 112 include, but are not limited or restricted to a liquid crystal display (LCD), a plasma display or the like.

In accordance with this embodiment, the body case 120 comprises a first body 130 and a second body 140 rotationally coupled together by a hinge 150. The hinge 150 may be adapted as any type of friction hinge such as a brake hinge for example. This allows the second body 140 to be vertically rotated and maintained in any selected angle of rotation (α , where $0^\circ \leq \alpha \leq 90^\circ$). It is contemplated, however, that the hinge 150 need not include brake hinges when there is no need for maintaining the second body 140 at an angled orientation.

The first body 130 comprises a base 131 and one or more protrusions 132 extending from the base 131. The base 131 is configured with a raised area 133 contoured to be complementary with a curvature of an edge 114 of the flat panel display 112. Also, the top surface of the raised area 133 may be generally flush with a top surface 116 of the display 110.

The base 131 is also adapted with a memory interface 134. The memory interface 134 may be adapted as a bay or communication port to receive a portable memory device such as one or more of the following: a memory card (e.g., PCMCIA card), a digital versatile disc (DVD), a compact disc (CD), a digital tape, or a floppy disk.

The protrusions 132 extend under recessed portions 142 of the second body 140. For instance, according to one embodiment of the invention, the protrusions 132 approximately extend up to a latitudinal center of the second body 140.

A first grommet pair 160 is positioned on a bottom surface 135 of the base 131. Moreover, a second grommet pair 162 is positioned on a bottom surface 136 of the protrusions 132. These grommets 160 and 162 prevent sliding of the electronic device 100 when the electronic device 100 is used on a table or other flat surface.

The second body 140 may be rotated about an axis of rotation established by the hinge 150 after the display 110 has been appropriately rotated and translated as shown below. A pair of grommets 164 is positioned on a bottom surface 144 of the second body 140. Optionally, a camera 170 may be rotationally coupled along an end 146 of the second body 140. This rotational coupling may be accomplished by a friction hinge, which would maintain the camera 170 facing in a direction manually set by the user.

Referring now to FIG. 2, an overhead view of the electronic device 100 is shown. Herein, the flat panel display 112 of the display 110 is mounted on the body case 120 in a stacked arrangement. The electronic device 100 operates as a portable tablet computer.

For this embodiment of the invention, the display 110 is configured in an oblong shape having a concave curvature at edge 114 and a convex curvature at edge 115. In this position, the display 110 covers at least seventy percent of

a footprint of the body case 120, including a keyboard (not shown) integrated into the first body 130, and perhaps a cursor control device 200.

As shown in FIG. 2, one or more hot keys 118 are integrated near an edge 115 of the display 110. A "hot key" is a recessed area that, when activated, causes a task to be more quickly performed than by selecting entries from menus via the cursor control device 200. These tasks can be specified and programmed at manufacture or can be programmed by the user. Examples of tasks controlled by the hot keys 118 include starting an application, establishing network connectivity, commencing a power-down procedure, or the like.

Referring to FIG. 3, a perspective view of the bottom sides 135, 136 and 144 of the electronic device 100 are shown. The first body 130 is configured with the protrusion 132 that are used to provide stability when the display 110 is rotated or translated as shown in FIG. 4. The base 131 is sized to provide sufficient support for the display 110 when the electronic device 100 is placed in a SELF-SUPPORTING position. The grommet pairs 160 and 162 are positioned on opposite sides of the first body 130 and spaced appropriately to reduce skid during use.

Referring now to FIG. 4, a perspective view of electronic device 100 placed in a SELF-SUPPORTING position is shown. Herein, the second body 140 is vertically rotated by an angle of rotation (α). Such rotation is performed after the display 110 has been horizontally rotated and translated toward the camera 170 and placed in a second position as described below in detail. Hence, the cursor control device 200 and the keyboard 210 are fully accessible by the user.

The second body 140 comprises the recessed portions 142, which are sized to accommodate protrusions 132 of the first body 130. As a result, the collective bottom surfaces of the bodies 130 and 140 are substantially planar when the electronic device 100 is placed in the TABLET position as shown in FIG. 1.

Referring now to FIGS. 5A-5B, exploded views of exemplary embodiments of a coupling member 300 are shown. Of course, the coupling member 300 may be produced in a variety of physical configurations other than those illustrated. Regardless of its configuration, the coupling member 300 is configured to enable the display 110 to be rotated and translated over the body case 120.

For each of the embodiments illustrated in FIGS. 5A-5B, the coupling member 300 comprises a shaft 310 interconnecting a fastening element 320 and a securing element 330. Both the shaft 310 and elements 320 and 330 may be made of a rigid composition such as hardened plastic, metal, or the like. The shapes of the fastening and securing elements 320 and 330 are a design choice.

According to one embodiment of the invention, as shown in FIG. 5A, the shaft 310 and securing element 330 are formed together as the same element. The shaft 310 comprises a first end 312 adapted for coupling to the fastening element 320. For instance, the first end 312 may be sized and configured for insertion into a cavity 322 of the fastening element 320, and thereafter, retained by the fastening element 320.

As an example, the first end 312 may be a "snap-in" insert that is adapted to mate with a complementary female cavity 322 located on the fastening element 320. Alternatively, as another example, the first end 312 may be coupled to the fastening element 320 by another conventional coupling technique such as threads, welding, gluing, or the like.

According to another embodiment of the invention, as shown in FIG. 5B, the shaft 310 and fastening element 320