CLAIMS

What is claimed is:

1. A portable solid-state drive (SSD) module comprising:

a case having a window;

an SSD arranged in the case;

a light-emitting device (LED) module arranged in the case to indicate an operation of the SSD through the window; and

a main bracket arranged in the case to support the LED module,

wherein the main bracket is configured to upwardly support the LED module and wherein the main bracket comprises at least one rib formed on an upper surface of the main bracket, and wherein the at least one rib is downwardly inclined along a first direction corresponding to an entering direction of the main bracket into the case to slidably make contact with a lower surface of the LED module.

2. The SSD module of claim 1, wherein the case has an open front surface configured such that the main bracket may enter the case by traveling in a first direction, the case further comprising an open rear surface positioned opposite to the open front surface in the first direction.

3. The SSD module of claim 1 or claim 2, wherein the case further comprises:

an upper surface having the window;

a lower surface arranged under the upper surface; and

side surfaces connected between the upper surface and the lower surface.

4. The SSD module of claim 3, wherein the case has a structure where the upper surface and the lower surface are integrally formed with the side surfaces.

5. The SSD module of claim 3 or claim 4, wherein the upper surface and the lower surface each have a width longer than a height of the side surfaces.

6. The SSD module of any one of claims 1 to 5, further comprising a front bracket arranged in the case to support connectors electrically connected between the SSD and the LED module.

7. The SSD module of claim 6, further comprising a cushion interposed between the front bracket and the connectors.

8. The SSD module of claim 6 or claim 7, wherein the LED module comprises at least one supporting groove and the front bracket comprises at least one supporting portion inserted into the supporting groove.

9. The SSD module of claim 8, wherein the supporting groove is formed at both side surfaces of the LED module along a second direction corresponding to an entering direction of the front bracket into the case, and the at least one supporting portion is extended from both side portions of an inner surface of the front bracket in the second direction.

10. A portable solid-state drive (SSD) module comprising:

a case having a window;

an SSD arranged in the case;

a light-emitting device (LED) module arranged in the case to indicate an operation of the SSD through the window; and

a main bracket arranged in the case to support the LED module,

wherein the main bracket is configured to upwardly support the LED module, and wherein the main bracket comprises:

a body portion positioned between the case and the SSD;

a pair of horizontal supporting portions horizontally extended from both portions of a front surface of the body portion to support both side surfaces of the LED module; and

a vertical supporting portion arranged between the horizontal supporting portions to support a lower surface of the LED module.

11. The SSD module of claim 10, wherein the vertical supporting portion has a slanted upper surface along a first direction corresponding to an entering direction of the main bracket into the case, and the slanted upper surface is configured to slidably make contact with the lower surface of the LED module.

12. The SSD module of claim 10, wherein the vertical supporting portion has an upper surface lower than upper surfaces of the horizontal supporting portions to form a receiving groove for receiving the LED module between the vertical supporting portion and the horizontal supporting portions.

13. The SSD module of claim 10, wherein the vertical supporting portion comprises:

a central supporting portion configured to support a central portion of the lower surface of the LED module; and

a pair of edge supporting portions arranged at both sides of the central supporting portion to support edge portions of the lower surface of the LED module.

14. The SSD module of claim 13, wherein the central supporting portion and the edge supporting portions comprise a slanted upper surface along a first direction corresponding to an entering direction of the main bracket into the case, and wherein the slanted upper surface is configured to slidably make contact with the lower surface of the LED module.

15. The SSD module of claim 13, wherein the vertical supporting portion further comprises one or more ribs formed on upper surfaces of the central supporting portion and the edge supporting portions, and wherein the one or more ribs are downwardly inclined along a first direction corresponding to an entering direction of the main bracket into the case to slidably make contact with the lower surface of the LED module.

16. The SSD module of any one of claims 13 to 15, wherein the central supporting portion has an opening configured to expose the SSD.

17. The SSD module of claim 16, wherein the opening has an open front surface.

18. The SSD module of any one of claims 10 to 17, wherein the vertical supporting portion has a length shorter than that of the horizontal supporting portions.

19. The SSD module of any one of claims 10 to 18, further comprising a front bracket arranged in the case to support connectors electrically connected between the SSD

and the LED module.

20. The SSD module of claim 19, further comprising a cushion interposed between the front bracket and the connectors.