What is claimed :

1. A wearable electronic device, comprising:

first, second, and third connectors;

a flexible printed circuit;

a first battery pack operatively coupled to the flexible printed circuit with the first connector;

a second battery pack operatively coupled to the flexible printed circuit with the second connector;

a main logic board operatively coupled to the flexible printed circuit with the third connector;

a first protection circuit module disposed in the first battery pack and configured to selectively enable and disable power output from the first battery pack;

a second protection circuit module disposed in the second battery pack and configured to selectively enable and disable power output from the second battery pack;

and

a sensing circuit disposed along the flexible printed circuit and main logic board and including one or more sensing signal paths coupling the first and second protection circuit modules through each of the first, second, and third connectors,

wherein the first battery pack provides a first sensing signal over the sensing circuit and the second battery pack is configured to provide a second sensing signal over the sensing circuit, and

the first protection circuit module enables power output from the first battery pack when the first protection circuit module detects the second sensing signal over the sensing circuit and disables power output from the first battery pack when the first protection circuit module fails to detect the second sensing signal over the sensing circuit, and

the second protection circuit module enables power output from the second battery pack when the second protection circuit detects the first sensing signal over the sensing circuit and disables power output from the second battery pack when the second protective circuit fails to detect the first sensing signal over the sensing circuit.

2. The wearable electronic device of claim 1 in which the main logic board is disposed in a front section of the wearable electronic device that is configured to be located proximate to a user's face or forehead when the wearable electronic device is worn by the user.

3. The wearable electronic device of claim 2 in which at least a portion of the flexible printed circuit is disposed in the front section of the wearable electronic device.

4. The wearable electronic device of claim 1 in which the first and second battery packs are respectively disposed in left-side and right-side sections of the wearable electronic device, the left-side section being located proximate to a left-side of a user's head when the wearable electronic device is worn by the user, and the right-side section being located proximate to a right-side of the user's head when the wearable electronic device is worn by the user.

5. The wearable electronic device of claim 4 in which the first connector is located proximate to an interface between the front section and the left-side section and the second connector is located proximate to an interface between the front section and the right-side section.

6. The wearable electronic device of claim 1 further including one or more field effect transistors (FETs) in each of the first and second protection circuit modules.

7. The wearable electronic device of claim 1 in which the one or more sensing signal paths are low power paths.

8. The wearable electronic device of claim 1 in which each of the protection circuit modules includes logic configured to implement state awareness of connector integrity.

9. The wearable electronic device of claim 1 further comprising a main power bus distributed over the flexible printed circuit and main logic board in which power from the first and second battery packs is output from respective first and second protection circuit modules to the main power bus.

10. The wearable electronic device of claim 1 as implemented in a head mounted display device.