CLAIMS

What is claimed is:

1. An electronic device comprising:

a first electronic device comprising a printed circuit board and a quad plug connector coupled to a first surface of the printed circuit board;

a first plurality of wires coupled to a second surface of the printed circuit board, wherein the first plurality of wires are parallel to each other and are located on a first plane; and

a second plurality of wires coupled to the second surface of the printed circuit board, wherein the second plurality of wires are parallel to each other and are located on a second plane, wherein the first and second planes are each parallel to each other and to the second surface of the printed circuit board, and the first plurality of wires is vertically above the second plurality of wires.

2. The electronic device of claim 1, wherein the first surface of the printed circuit board is opposite of the second surface of the printed circuit board.

3. The electronic device of claim 1, comprising a ground bar, wherein the ground bar comprises:

a first layer below the second plurality of wires; and

a second layer between the first plurality of wires and the second plurality of wires.

4. The electronic device of claim 1, comprising:

a hinge; and

a wire bundle comprising the first and second pluralities of wires, wherein the wire bundle is configured to provide communications through the hinge.

5. The electronic device of claim 1, comprising a second electronic device coupled to the first and second pluralities of wires.

6. The electronic device of claim 1, wherein the wires of the first plurality of wires are interleaved with the wires of the second plurality of wires.

7. The electronic device of claim 1, wherein the first electronic device comprises:

a first set of pads on the second surface of the printed circuit board;

a first hot bar used to couple the first plurality of wires to the first set of pads;

a second set of pads on the second surface of the printed circuit board; and

a second hot bar used to couple the second plurality of wires to the second set of pads.

8. The electronic device of claim 7, wherein the first electronic device comprises a ground bar electromechanically coupled to the second surface of the printed circuit board and that is coupled to the first and second pluralities of wires.

9. The electronic device of claim 8, wherein the first electronic device comprises a film with conductive material that is coupled to the printed circuit board and the ground bar and is configured

to at least partially shield electromagnetic interference from escaping the first set of pads and the second set of pads during operation of the electronic device.

10. The electronic device of any of claims 1-9, wherein the first plurality of wires or the second plurality of wires is coupled to the second surface of the printed circuit board using at least one physical connector electromechanically coupled to the second surface of the printed circuit board.

11. An electronic device comprising:

a first electronic device comprising:

a printed circuit board having a quad plug connector coupled to a first surface of the printed circuit board;

first and second sets of pads coupled to a second surface of the printed circuit board; and

a ground bar coupled to the second surface of the printed circuit board;

a first plurality of wires coupled to the second surface of the printed circuit board using a first hot bar connection configured to couple the first plurality of wires to the first set of pads, wherein the first plurality of wires are parallel to each other and are located on a first plane, and the first plurality of wires is coupled to the ground bar; and

a second plurality of wires coupled to the second surface of the printed circuit board using a second hot bar connection configured to couple the second plurality of wires to the second set of pads, wherein the second plurality of wires are parallel to each other and are located on a second plane, the second plurality of wires is coupled to the ground bar, the first and second planes are

each parallel to each other and to the second surface of the printed circuit board, and the first plurality of wires is vertically above the second plurality of wires.

12. The electronic device of claim 11, wherein the first electronic device comprises a shield layer coupled to the ground bar, wherein the shield layer is configured to at least partially block electromagnetic interference to or from the first and second set of pads.

13. The electronic device of claim 12, wherein the shield layer comprises a stretchable film with conductive flakes configured to electrically couple with the ground bar.

14. The electronic device of claim 13, wherein the stretchable film is stretched at least partially around the wires of the first plurality of wires to provide electromagnetic interference protection between the wires of the first plurality of wires.

15. The electronic device of claim 13, wherein the stretchable film is configured to be compressed near the ground bar and the printed circuit board to cause the conductive flakes to form a connection with the ground bar and with a ground connection on the printed circuit board.

16. The electronic device of claim 12, wherein the shield layer comprises:

a conductive sheet formed from a conductive material; and

a conductive filler disposed between the ground bar and the conductive sheet and between the conductive sheet and a ground connection of the second surface of the printed circuit board, wherein the conductive filler is configured to provide an electrical connection between the

conductive sheet, the ground bar, and the ground connection after the conductive filler is set near the ground bar and the ground connection.

17. The electronic device of claim 16, wherein the conductive filler is configured to be set using pressure or heat to set conductivity between the ground bar, the conductive sheet, and the ground connection on the printed circuit board.

18. The electronic device of any of claims 12-17, wherein the first electronic device comprises a second shield layer between the first plurality of wires and the second plurality of wires and is coupled to the ground bar, wherein the second shield layer is configured to provide electromagnetic interference protection between the first plurality of wires and the second plurality of wires.

19. A method of manufacturing an interface, comprising:

coupling a first plurality of wires to a first plurality of pads on a printed circuit board;

coupling a second plurality of wires to a second plurality of pads on the printed circuit board;

coupling a ground bar to the printed circuit board, wherein the first and second pluralities of wires abut the ground bar;

disposing an insulation layer on the first and second pluralities of wires and the first and second pluralities of pads; and

disposing an adhesive film carrying conductive material on the insulation layer, the ground bar, and the printed circuit board; and

electrically bonding the adhesive film carrying conductive material to electrically couple the ground bar and a ground connection of the printed circuit board to implement a shield layer configured to at least partially block electromagnetic interference from escaping from the first plurality of pads and the second plurality of pads.

20. The method of claim 19, wherein electrically bonding the adhesive film carrying conductive material comprises compressing conductive flakes or filler in the adhesive film carrying conductive material to cause electrical connections to form through the adhesive film carrying conductive material.