

CLAIMS

What is claimed is:

1. A device for managing communications comprising:
 - a sensor having a field of view, the sensor including a first side and a second side, the second side being substantially opposite the first side;
 - a first antenna positioned offset from the first side of the sensor;
 - a second antenna positioned offset from the second side of the sensor;
 - a first shield positioned adjacent to the first side of the sensor and a first distance from the first antenna, the first shield directing the first antenna toward the field of view; and
 - a second shield positioned adjacent to the second side of the sensor and a second distance from the second antenna, the second shield directing the second antenna toward the field of view.
2. The device as described in claim 1, wherein the offset of the second antenna from the second side of the sensor is substantially similar to the offset of the first antenna from the first side of the sensor.
3. The device as described in claim 1, wherein:
 - the first and second distances are substantially similar; and
 - the first and second shields are located within a common two-dimensional plane.
4. The device as described in claim 1, the first and second antennas are similar in shape but extend structurally in opposing directions.
5. The device as described in claim 1, wherein the first shield has a first inner edge adjacent to a first portion of an outer surface of the sensor and the second shield has a second inner edge adjacent to a second portion of the outer surface of the sensor, the second portion being substantially opposite to the first portion.

6. The device as described in claim 1, wherein a substantial portion of the first antenna follows an outer boundary of the first shield and a substantial portion of the second antenna follows an outer boundary of the second shield.
7. The device as described in claim 1, further comprising a circuit coupled to the sensor, the first antenna, and the second antenna, and a ground coupled to the first and second shields, wherein the sensor is a motion sensor.
8. The device as described in claim 1, wherein the first and second antennas operate for different wireless technologies.
9. A device for managing communications comprising:
 - a circuit board having a first side and a second side, the second side being substantially opposite the first side;
 - a sensor positioned adjacent to the circuit board, the sensor including a body supported by the circuit board and a front end extending from the body;
 - a first antenna coupled to the first side of the circuit board and positioned proximal to the front end of the sensor and offset from the first side of the circuit board;
 - a second antenna coupled to the second side of the circuit board and positioned proximal to the front end of the sensor and offset from the second side of the circuit board;
 - a first shield positioned adjacent to an outer surface of the sensor and a first distance from the first antenna; and
 - a second shield positioned adjacent to the outer surface of the sensor and a second distance from the second antenna.
10. The device as described in claim 9, wherein the offset of the second antenna from the second side of the circuit board is substantially similar to the offset of the first antenna from the first side of the circuit board.
11. The device as described in claim 9, wherein:
 - the first and second distances are substantially similar; and

the first and second shields are located within a common two-dimensional plane.

12. The device as described in claim 9, wherein the first and second antennas are similar in shape but extend structurally in opposing directions.

13. The device as described in claim 9, wherein the first shield has a first inner edge adjacent to a first portion of the outer surface of the sensor and the second shield has a second inner edge adjacent to a second portion of the outer surface of the sensor, the second portion being substantially opposite to the first portion.

14. The device as described in claim 9, wherein a substantial portion of the first antenna follows an outer boundary of the first shield and a substantial portion of the second antenna follows an outer boundary of the second shield.

15. The device as described in claim 9, wherein a ground is coupled to the first and second shields.

16. The device as described in claim 9, wherein:
the sensor is mounted to an edge of the circuit board and extends
symmetrically beyond the first and second sides of the circuit board; and

the front end of the sensor includes a sensor lens directed away from the
circuit board in a direction parallel to the first and second sides of the circuit board.