Title: ANTENNA CONFIGURATION FOR MOBILE COMMUNICATION DEVICE

Abstract: The embodiments of the present disclosure provide positions of an antenna of a mobile communication device in a location that places the antenna at a spaced distance from a user and/or the brain of the user to reduce the amount of RF energy that impinges on the brain of the user when the mobile communication device is in use and held near the face of a user.
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AMENDED CLAIMS
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I Claim:

1. A mobile communication system comprising:
   a mobile communication device;
   the mobile communication device including:
      a housing;
      an antenna positioned on or in the housing; and
      a connector positioned in the housing with a portion exposed,
   the mobile communication device configured to transmit electrical signals to
   and receive electrical signals from the connector; and
      an antenna separate from the mobile communication device and
   connectable to the mobile communication device by the connector, the
   separate antenna being electrically connected to the connector of the mobile
   communication device by wires extending to the connector from the mobile
   communication device and wires connected to the connector from the separate
   antenna.

2. The mobile communication device of claim 1, wherein the separate
   antenna is removably connected to the mobile communication device.

3. A mobile communication device comprising:
   a housing including a front face and a back face, and a plurality of sides
   extending between the front face and the back face;
   a hinge attached to the back face of the housing;
   a plate rotatably connected to the housing by the hinge at a proximate
   end of the plate; and
      an antenna positioned on a distal end of the rotatable plate.

4. A mobile communication device comprising:
   a housing including a front face and a back face, and a plurality of sides
   extending between the front face and the back face;
a strap attached to the housing;

a wire positioned on the strap; and

an antenna positioned on the strap, the antenna configured to receive signals from the mobile communication device by way of the wire.

5. The mobile communication device of claim 4, wherein the strap is attached to the housing at a top side of the housing.

6. The mobile communication device of claim 4, wherein the strap is attached to the housing at a top side of the housing and at a bottom side of the housing.

7. The mobile communication device of claim 6, wherein the strap is slidably mounted to the top side of the housing and to the bottom side of the housing.

8. A mobile communication device comprising:

a housing including a front face and a back face, and a plurality of sides extending between the front face and the back face;

a hinge attached to one of the front face, the back face, and the plurality of sides of the housing; and

an antenna rotatably attached to the housing by the hinge, the antenna rotatable about the hinge between a first position where the antenna is positioned alongside the housing and a second position where the antenna is a spaced distance from the housing.

9. The mobile communication device of claim 8, wherein the hinge is positioned on a top side of the housing, and the antenna is positioned adjacent to the top side in the first position and positioned to extend away from the housing when the antenna is rotated about an axis of the hinge to the second position.

10. The mobile communication device of claim 8, wherein the antenna is rotated to extend in a direction that is a direction opposite to a direction of a
11. The mobile communication device of claim 8, wherein the antenna is rotated in a plane that is parallel to the top side when moving from the first direction to the second direction.

12. The mobile communication device of claim 8, wherein the hinge is positioned on a longitudinal side of the housing that extends between a top side of the housing and a bottom side of the housing, and the antenna is positioned alongside the longitudinal side of the housing in the first position and positioned to extend away from one of a top side and a bottom side of the housing when the antenna is rotated about an axis of the hinge in the second position.

13. The mobile communication device of claim 8, wherein the hinge is attached to a longitudinal side of the housing, and the antenna is positioned near a bottom side of the housing in the first position and the antenna is positioned a spaced distance away from a top side of the housing that is in a direction that is opposite from the bottom side of the housing from the top side of the housing when the antenna is in the second position.

14. A mobile communication system comprising:

   a mobile communication device, the mobile communication device including a retractable wire positioned internal to the mobile communication device and extendable from the mobile communication device and retractable into the mobile communication device; and

   an antenna connected to the mobile communication device by the retractable wire, the antenna being positioned on the housing when the retractable wire is retracted into the housing and positioned a spaced distance from the mobile communication device when the retractable wire is extended from the housing.
15. The mobile communication system of claim 14, wherein when the antenna is positioned on the housing, the antenna is positioned in a cavity or recess.

16. The mobile communication system of claim 15, wherein the housing cavity or recess includes slides or rails, and the antenna mates with the slides or rails.

17. The mobile communication system of claim 14, including an antenna positioned on or in the housing, a transceiver, and a switch positioned to transmit signals to the antenna positioned on or in the housing, or to the retractable wire, and when the retractable wire is extended, the switch connects the transceiver to the antenna connected to the retractable wire and disconnects signals from the antenna positioned on or in the housing.

18. The mobile communication system of claim 17, further including a second switch positioned between the first switch and the antenna positioned on or in the housing, the second switch connected to a connector positioned on the mobile communication device, and when a second antenna is connected to the connector, the second switch connects the first switch to the connector.

19. The mobile communication system of claim 18, wherein at least one of the antenna and the second antenna includes signal conditioning circuitry.

20. The mobile communication system of claim 18, wherein at least one of the antenna and the second antenna includes a power supply and an amplifier positioned to amplify signals received by the at least one of the antenna and the second antenna.

21. A mobile communication system comprising:
   a mobile communication device;
   a separate antenna; and
   an antenna positioned on or in the mobile communication device;
wherein connection of the separate antenna to the mobile communication device causes the separate antenna to be electrically connected to a transceiver of the mobile communication device and causes the positioned on or in the mobile communication device antenna to be electrically disconnected from the transceiver, and

wherein disconnection of the separate antenna from the mobile communication device causes the separate antenna to be electrically disconnected from the transceiver and causes the antenna positioned on or in the mobile communication device to be electrically connected to the transceiver.