
Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1. (Currently Amended) In a portable electronics device having a printed circuit board assembly, an antenna system comprising:

a first antenna provided on the printed circuit board assembly, ~~said~~the first antenna being fed from a portion of the printed circuit board assembly such that a ground plane of the printed circuit board assembly serves as a counterpoise for the first antenna; and

a second balanced antenna provided on the printed circuit board assembly, wherein ~~said~~ the second balanced antenna ~~having~~has dipole ends being excitable to an electrical potential of equal magnitude and opposite sign, resulting in an approximately neutral potential at the ground plane to approximately minimize coupling to the ground plane of the printed circuit board assembly to increase isolation between the first antenna and the second balanced antenna, and wherein the dipole ends are oriented such that an axis of polarization is approximately normal to the ground plane of the printed circuit board assembly.

2. (Cancelled).

3. (Original) The antenna system of claim 1 wherein the first antenna and the second balanced antenna are provided at opposite ends of the printed circuit board assembly.

4. (Currently Amended) The antenna system of claim 1 wherein the first antenna and the second balanced antenna are provided at ~~the~~a same end of the printed circuit board assembly.

5. (Original) The antenna system of claim 1 wherein the second balanced antenna comprises a conductive foil pattern printed on a carrier attached to the printed circuit board assembly.

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6. (Original) The antenna system of claim 1 wherein the second balanced antenna comprises a stamped metal part.
 7. (Original) The antenna system of claim 1 wherein the second balanced antenna comprises two antenna pieces, each attached to an opposite side of the printed circuit board assembly.
 8. (Original) The antenna system of claim 7 wherein each of the two antenna pieces is soldered to a pad on opposite sides of the printed circuit board assembly, wherein the pads are connected to form an inductive connecting element.
 9. (Currently Amended) The antenna system of claim 1 wherein the second balanced antenna comprises a center fed dipole antenna having capacitive end plates on opposite sides of the printed circuit board assembly, ~~said~~the capacitive end plates being connected by an inductive connecting element.
 10. (Previously Presented) The antenna system of claim 1 wherein the second balanced antenna comprises two approximately symmetrical dipole ends positioned approximately equidistant from the printed circuit board assembly on opposite sides of the printed circuit board assembly.
 11. (Original) The antenna system of claim 1 wherein the second balanced antenna has a C-shaped cross section, and is disposed around an edge of the printed circuit board assembly.
 12. (Currently Amended) The antenna system of claim 1 wherein ~~said~~the first antenna operates in a WiMAX frequency band and ~~said~~the second balanced antenna operates in a WiFi frequency band.

13. (Currently Amended) The antenna system of claim 1 wherein the second balanced antenna comprises a plurality of antenna elements, each operatively coupled to a different antenna port, and one or more connecting elements electrically connecting the antenna elements such that electrical currents on one antenna element flow to a connected neighboring antenna element and approximately bypass the antenna port coupled to the connected neighboring antenna element, the electrical currents flowing through the one antenna element and the connected neighboring antenna element being approximately equal in magnitude, such that an antenna mode excited by one antenna port is approximately electrically isolated from a mode excited by another antenna port at a given desired signal frequency range.

14. (Original) The antenna system of claim 1 further comprising one or more additional antennas attached to an edge of the printed circuit board assembly such that the ground plane of the printed circuit board assembly serves as a counterpoise for the one or more additional antennas.

15. (Previously Presented) The antenna system of claim 1 wherein the first antenna and the second balanced antenna are in close proximity, and wherein near fields created by the first antenna and the second balanced antenna do not overlap thereby reducing Specific Absorption Rate (SAR) values when both antennas are used for simultaneous transmission.

16. (Currently Amended) An antenna system for a portable electronics device having two or more radios operating independently and simultaneously, the antenna system comprising:

a printed circuit board assembly having a ground plane;

a first antenna provided on the printed circuit board assembly, ~~said~~the first antenna being fed from a portion of the printed circuit board assembly such that the ground plane of the printed circuit board assembly serves as a counterpoise for the first antenna; and

a second balanced antenna comprising two approximately symmetrical dipole ends positioned approximately equidistant from the printed circuit board assembly on opposite sides of the printed circuit board assembly, ~~said~~the dipole ends being excitable to an electrical potential of equal magnitude and opposite sign, resulting in an approximately neutral potential at the ground plane to approximately minimize coupling to the ground plane to increase isolation between the first antenna and the second balanced antenna.

17. (Currently Amended) The antenna system of claim 16 wherein the dipole ends are oriented such that ~~the~~an axis of polarization is approximately normal to the ground plane of the printed circuit board assembly.

18. (Original) The antenna system of claim 16 wherein the first antenna and the second balanced antenna are provided at opposite ends of the printed circuit board assembly.

19. (Currently Amended) The antenna system of claim 16 wherein the first antenna and the second balanced antenna are provided at ~~the~~a same end of the printed circuit board assembly.

20. (Original) The antenna system of claim 16 wherein the second balanced antenna comprises a conductive foil pattern printed on a carrier attached to the printed circuit board assembly.

21. (Original) The antenna system of claim 16 wherein the second balanced antenna comprises a stamped metal part.

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22. (Original) The antenna system of claim 16 wherein the second balanced antenna comprises two antenna pieces, each attached to a pad on an opposite side of the printed circuit board assembly, wherein the pads are connected to form an inductive connecting element.
23. (Original) The antenna system of claim 16 wherein the second balanced antenna has a C-shaped cross section, and is disposed around an edge of the printed circuit board assembly.
24. (Currently Amended) The antenna system of claim 16 wherein ~~said~~the first antenna operates in a WiMAX frequency band and ~~said~~the second balanced antenna operates in a WiFi frequency band.
25. (Currently Amended) The antenna system of claim 16 wherein the second balanced antenna comprises a plurality of antenna elements, each operatively coupled to a different antenna port, and one or more connecting elements electrically connecting the antenna elements such that electrical currents on one antenna element flow to a connected neighboring antenna element and approximately bypass the antenna port coupled to the connected neighboring antenna element, the electrical currents flowing through the one antenna element and the connected neighboring antenna element being approximately equal in magnitude, such that an antenna mode excited by one antenna port is approximately electrically isolated from a mode excited by another antenna port at a given desired signal frequency range.
26. (Original) The antenna system of claim 16 further comprising one or more additional antennas attached to an edge of the printed circuit board assembly such that the ground plane of the printed circuit board assembly serves as a counterpoise for the one or more additional antennas.
27. (Previously Presented) The antenna system of claim 16 wherein the first antenna and the second balanced antenna are in close proximity, and wherein near fields created by the first antenna and the second balanced antenna do not overlap thereby reducing Specific Absorption Rate (SAR) values when both antennas are used for simultaneous transmission.

28. (New) A communication device, comprising:

a plurality of radios; and

an antenna system coupled to the plurality of radios, wherein the antenna system comprises:

a printed circuit board assembly having a ground plane;

a first antenna provided on the printed circuit board assembly, the first antenna being fed from a portion of the printed circuit board assembly such that the ground plane of the printed circuit board assembly serves as a counterpoise for the first antenna; and

a second balanced antenna comprising two approximately symmetrical dipole ends positioned approximately equidistant from the printed circuit board assembly on opposite sides of the printed circuit board assembly, the dipole ends being excitable to an electrical potential of equal magnitude and opposite sign, resulting in an approximately neutral potential at the ground plane to approximately minimize coupling to the ground plane to increase isolation between the first antenna and the second balanced antenna.