

IN THE CLAIMS

Each claim of the present application is set forth below with a parenthetical notation immediately following the claim number indicating the current claim status. The Examiner's entry of the claim amendments under Section 1.121 is respectfully requested.

1. (canceled)

2. (currently amended) The communications apparatus of claim ~~341~~ wherein the controller is responsive to an operating parameter of the communications apparatus, the operating parameter representative of the power-related parameter.

3. (currently amended) The communications apparatus of claim ~~341~~ wherein controlling the structural elements ~~load impedance~~ responsive to the power related parameter, or to the power amplifier output power or to the power amplifier output impedance improves an efficiency of the power amplifier or a power added efficiency of the power amplifier.

4. (currently amended) The communications apparatus of claim ~~341~~ ~~comprising a communications apparatus bidirectionally communicative with a remote station, the remote station commanding the communications apparatus to cause the power amplifier to supply the first signal having a desired power parameter, the controller controlling the load impedance according to the desired power-related parameter.~~

5. (currently amended) The communications apparatus of claim ~~341~~ wherein controlling the structural elements ~~load impedance~~ according to the power-related parameter improves a power amplifier efficiency, the controller for controlling the structural elements ~~load impedance~~ to yield a power amplifier efficiency between a first efficiency value and a second efficiency value, wherein when the power amplifier efficiency is the first efficiency value the controller controls the structural elements

~~load impedance~~ to change the power amplifier efficiency to the second efficiency value.

6. – 7. (canceled)

8. (currently amended) The communications apparatus of claim 341 wherein the structural elements comprise ~~controller controls the load impedance by controlling~~ lumped reactive components or distributed reactive components, ~~operative with the antenna.~~

9. (canceled)

10. (currently amended) The communications device of claim 341 wherein the power-related parameter comprises a power amplifier output power, an operating frequency of the communications device or a voltage standing wave ratio on a conductive path between the power amplifier and the antenna.

11. – 13. (canceled)

14. (currently amended) The communications device of claim 341 wherein the controller controls the structural elements ~~load impedance~~ to achieve a desired VSWR.

15. – 16. (canceled)

17. (currently amended) The communications apparatus of claim 341 wherein the power-related parameter comprises a peak DC current.

18. – 24. (canceled)

25. (currently amended) The communications apparatus of claim 3420 wherein the antenna controller first controls the resonant frequency to a desired resonant frequency then controls the controllable structural elements to determine the antenna input load impedance, ~~responsive to the output power level.~~

26. (currently amended) The communications apparatus of claim 34_20 wherein the antenna controller is responsive to a signal representing a frequency of a signal transmitted by the communications device for controlling the resonant frequency to ~~a the~~ desired resonant frequency.

27. – 33. (canceled)

34. (currently amended) A communications apparatus capable of transmitting and receiving signals in a plurality of frequency bands, the communications apparatus comprising:

an antenna controllable to ~~having at least two~~ multiple-resonant frequencies;

a power amplifier for operating on an input signal to supply a first signal to the antenna for transmitting, a power-related parameter associated with the first signal, the power amplifier having an output power controllable responsive to the power-related parameter, wherein a power amplifier output impedance varies according to the output power;

the antenna comprising an active element for transmitting signals supplied by the power amplifier and for receiving signals;

the antenna further comprising a controllable structural elements control over which determines the antenna input impedance and therefore the impedance into which the power amplifier operates, the structural elements controlled to increase a power amplifier efficiency; ~~impedance element presenting a load impedance to the power amplifier;~~ and

an antenna controller responsive to the power-related parameter, or to the power amplifier output power, or to the power amplifier output impedance for controlling the controllable structural elements ~~impedance element~~ according to the power-related parameter and for establishing an antenna resonant frequency from among the at least two multiple-resonant frequencies.

35. (currently amended) The communications apparatus of claim 34 responsive to a control signal indicating the power-related parameter or the antenna resonant frequency, wherein the antenna controller is responsive to the control signal.

36. (currently amended) The communications apparatus of claim 34 wherein the antenna controller controls an antenna effective electrical length, an inductance or a capacitance to establish the antenna resonant frequency.

37. – 53. (canceled)

54. (currently amended) A method for operating a communications apparatus capable of transmitting and receiving signals at a plurality of frequencies by an antenna controlling an antenna responsive to a signal produced by a power amplifier, the method comprising:

determining a power output of the power amplifier; and

receiving an input signal at a power amplifier, a power-related parameter associated with the input signal;

processing the input signal in the power amplifier to generate a first signal, the power amplifier having an output power responsive to the power related parameter, wherein a power amplifier output impedance varies according to the output power;

controlling an output power of the power amplifier responsive to the power-related parameter;

controlling antenna structural elements that determine an antenna input impedance and therefore the impedance into which the power amplifier operates, the structural elements controlled to increase a power amplifier efficiency, wherein the antenna structural elements are controlled responsive to the power related parameter, or to the power amplifier output power or to the power amplifier output impedance; and

controlling the antenna to determine a resonant frequency from among the plurality of frequencies.

~~controlling an antenna impedance to increase a power amplifier efficiency.~~

55. (currently amended) The method of claim 54 further comprising a the step of a remote communications station supplying a signal to the communications apparatus for controlling the output power ~~output~~ of the power amplifier, the step of controlling the antenna structural elements impedance ~~further comprising controlling the antenna impedance responsive to the signal.~~

56. – 57. (canceled)