

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, as shown in marked-up form, under Section 1.121 is respectfully requested.

1. (currently amended) A communications device for receiving a propagating electromagnetic signal representing an information signal, the communications device comprising:

a plurality of radiators, first and a second radiator each radiator comprising a plurality of structural elements;

a controller for configuring one or more of the structural elements of each one of the plurality of the first radiators to produce first corresponding operating characteristics for each one of the plurality of radiators; ~~of the first radiator, the first radiator producing a first~~

each one of the plurality of radiators producing a received signal, signal characteristics of each received signal determined by the operating characteristics of the associated one of the plurality of radiators;

the controller for determining a signal distance between pairs of the received signals and for further configuring one or more of the structural elements of one or more of the plurality of radiators to further increase the signal distance or decrease a correlation between pairs of the received signals; and responsive to the first operating characteristics;

~~the controller for configuring one or more of the structural elements of the second radiator to produce second operating characteristics of the second radiator different than the first operating characteristics, the second radiator producing a second received signal responsive to the second operating characteristics; and~~

a signal processor responsive to at least one of the ~~first and the second received signals for determining the information signal.~~

2. (canceled)

3. (original) The communications device of claim 1 wherein the information signal comprises an analog signal or a digital signal representing data, video, voice, audio, and multimedia information.

4. (currently amended) The communications device of claim 1 ~~further comprising a control signal produced by the controller for further determining responsive to a signal quality metric of one or more of received signals, wherein the controller continues to determine the signal distance and reconfigure the structural elements until a desired signal quality metric is determined.~~ ~~at least one of the first and the second received signals, the control signal for producing the first and the second operating characteristics.~~

5. (currently amended) The communications device of claim 1 wherein the ~~first and the second~~ operating characteristics comprise at least one of radiation pattern, antenna impedance, antenna resonant frequency, signal polarization, antenna gain, radiation intensity, pattern directivity, bandwidth and antenna efficiency.

6. (currently amended) The communications device of claim 1 wherein the signal processor is responsive to a combination of two or more received signals ~~either the first received signal, the second received signal or a combination of the first and the second received signals~~ for determining the information signal.

7. (currently amended) The communications device of claim 6 wherein the combination of the two or more received signals ~~first and the second received signals~~ comprises one or more of an average, a sum or a weighted sum, ~~of the first and the second received signals,~~ and wherein the weighted sum comprises amplitude weighting, phase weighting or a combination of amplitude and phase weighting.

8. (currently amended) The communications device of claim 1 wherein the controller reconfigures one or more ~~both~~ of the structural elements of each one of the plurality of radiators ~~the first radiator and the structural elements of the second radiator~~ with time.

9. (currently amended) The system of claim 1 wherein the structural elements ~~of the first radiator and the structural elements of the second radiator~~ comprise a feed point, a ground point, an orientation, a separation distance and an effective electrical length.

10. (currently amended) The system of claim 1 wherein the plurality of first and the second radiators further comprise one or more switching elements responsive to the controller for configuring the one or more structural elements of the plurality of radiators. first and the second radiators.

11. (currently amended) The system of claim 1 wherein the ~~first operating characteristics of the first radiator and the second operating characteristics of the second radiator~~ comprise different time-based signal polarizations and radiation patterns.

12. (currently amended) An antenna for receiving a propagating electromagnetic signal representing an information signal, the antenna operative with an antenna controller and a signal processor, the antenna comprising:

a plurality of radiators, wherein each radiator comprises a plurality of structural elements, each radiator further comprising a resonant element responsive to the electromagnetic signal for producing a received signal;

the antenna controller for configuring one or more of the structural elements of a first radiator to produce corresponding operating characteristics for the first radiator, the first radiator for producing a first received signal at a first resonant element, characteristics of the first received signal determined by the operating characteristics of the first radiator;

~~and~~ the antenna controller for configuring one or more of the structural elements of a second radiator to produce corresponding operating characteristics for the second radiator, the second radiator for producing a second received signal at a second resonant element, characteristics of the second received signal determined by the operating characteristics of the second radiator, the second operating characteristics different from the first operating characteristics and the second received signal different from the first received signal; ~~and~~

the antenna controller for determining a signal distance between the first and the second received signals, and for further configuring one or both of the structural elements of the first and the second radiators to further increase a signal distance or decrease a correlation between the first and the second received signals; and

the signal processor for processing ~~at least one of the~~ first and the second received signals to determine the information signal.

13. (canceled)

14. (currently amended) The antenna of claim ~~12~~ 13 wherein the first and the second operating characteristics comprise one or more of radiation pattern, antenna impedance, antenna resonant frequency, signal polarization, antenna gain, radiation intensity, pattern directivity, bandwidth and antenna efficiency.

15. (original) The antenna of claim 12 wherein the information signal comprises an analog signal or a digital signal representing data, video, voice, audio, and multimedia information.

16. (original) The antenna of claim 12 further comprising a control signal produced by the antenna controller responsive to a signal quality metric of at least one of the first and the second received signals.

17. (currently amended) The antenna of claim 12 wherein the signal processor is responsive to ~~the first received signal, the second received signal or a~~ combination of the first and the second received signals for determining the information signal.

18. (original) The antenna of claim 12 wherein the structural elements of the first radiator and the structural elements of the second radiator comprise a feed point, a ground point, an orientation, a separation distance and an effective electrical length.

19. (original) The antenna of claim 12 wherein the first and the second radiators further comprise one or more switching elements responsive to the antenna controller for configuring the one or more structural elements of the first and the second radiators.

20. (original) The antenna of claim 12 wherein the first received signal and the second received signal comprise different time-based signal polarizations and radiation patterns.

21. – 29. (canceled)

30. (original) An antenna operative with a feed and a ground, the antenna having first and second terminal ends, comprising:

a first switching element at the first terminal end having a first condition according to which the first terminal end is connected to the feed and a second condition according to which the first terminal end is connected to the ground;

a second switching element at the second terminal end having a first condition according to which the second terminal end is connected to the feed and a second condition according to which the second terminal is connected to the ground; and

wherein in a first operating mode the first switching element is controlled to the first condition and the second switching element is controlled to the second condition and in a second operating mode the first switching element is controlled to the second condition and the second switching element is controlled to the first condition.

31. (original) An antenna operative with a feed, the antenna having first and second terminal ends, comprising:

a first switching element at the first terminal end having a first condition according to which the first terminal end is connected to the feed and a second condition according to which the first terminal end open;

a second switching element at the second terminal end having a first condition according to which the second terminal end is connected to the feed and a second condition according to which the second terminal is open; and

wherein in a first operating mode the first switching element is controlled to the first condition and the second switching element is controlled to the second condition and in a second operating mode the first switching element is controlled to the second condition and the second switching element is controlled to the first condition.

32. (original) An antenna for receiving a propagating electromagnetic signal representing an information signal, the antenna operative with an antenna controller and a signal processor, the antenna comprising:

a plurality of structural elements including a resonant element responsive to the electromagnetic signal for producing a received signal;

the antenna controller for controlling one or more of the structural elements as a function of time to produce received signals that differ as a function of time; and

the signal processor for processing the received signals to determine the information signal.

33. (currently amended) A signal processor operative with a plurality of first and a second antennas in a communications device, ~~the first and the second antennas~~ each antenna comprising a plurality of structural elements, the signal processor comprising;

a controller for configuring one or more of the structural elements of each one of the plurality of antennas ~~the first antenna~~ to effect first operating characteristics of each the first antenna; ~~the first antenna producing a first received signal responsive to the first operating characteristics;~~

each one of the plurality of antennas producing a received signal, signal characteristics of each received signal determined by operating characteristics of the associated one of the plurality of antennas;

~~the controller for configuring one or more of the structural elements of the second antenna to effect second operating characteristics of the second antenna different from the first operating characteristics, the second antenna producing a second received signal responsive to the second operating characteristics; and~~

the controller for determining a signal distance between pairs of the received signals, and further configuring one or more of the structural elements of one or more of the plurality of radiators to further increase the signal distance or decrease a correlation between pairs of the received signals; and

processing elements responsive to at least one of the ~~first and the second~~ received signals for determining the information signal.

34. (currently amended) The signal processor of claim 33 further comprising a combining element for combining the two or more first and the second received signals to produce a combined signal, the processing elements responsive to the combined signal for determining the information signal.