

## Claims

1. A radiofrequency (RF)-based treatment system comprising:  
a flexible applicator comprising a plurality of layers,  
—the plurality of layers comprises a first dielectric layer, a second dielectric layer,  
and a conductive layer, wherein the first dielectric layer and the second dielectric layer  
sandwich the conductive layer,  
  
the plurality of layers define a plurality of kerfs and one or more strain relief  
elements, wherein each strain relief element is a circular or elliptical hole in the plurality of  
layers,  
  
an inner region and N regions extending from the inner region, wherein:  
  
- the plurality of kerfs divide the applicator into N regions,  
  
one or more of the plurality of kerfs terminate at one or more strain relief  
elements, and  
  
the inner region is adjacent the one or more strain relief elements.
2. The RF-based treatment system of claim 1, wherein N ranges from 2 to 12.
- ~~3. —The RF-based treatment system of claim 1, wherein the plurality of layers define  
one or more strain relief elements, wherein each strain relief element is a circular or elliptical  
hole in the plurality of layers.~~
- ~~4. —The RF-based treatment system of claim 3, wherein one or more of the plurality of  
kerfs terminate at one or more strain relief elements, wherein the inner region is adjacent the  
one or more strain relief elements.~~
- ~~53.~~ The RF-based treatment system of claim 1, wherein the inner region is a kerf-free  
region, wherein N is 6.
- ~~64.~~ The RF-based treatment system of claim 1, wherein the plurality of N regions  
comprises a first region and a second region, wherein each of the first and second region define  
one or more areas, borders, or kerfs that are substantially the same.
- ~~75.~~ The RF-based treatment system of claim 1, wherein the plurality of layers comprises  
a label, wherein the label comprises N region identifiers, wherein each of the N region  
identifiers is disposed on one of the N regions.

86. The RF-based treatment system of claim 1, wherein applicator defines an applicator shape, wherein applicator shape is selected from the group consisting of elliptical, circular, substantially elliptical, substantially circular, pear shaped, substantially pear shaped, submental, and combinations thereof.

97. The RF-based treatment system of claim 1, wherein the conductive layer comprises a patterned region of copper traces in each of the N regions, wherein each of the patterned regions has one or more copper traces in electrical communication with copper traces arranged along the inner region.

108. The RF-based treatment system of claim 1, wherein the applicator further comprises an electrical connector, the electrical connector in electrical communication with one or more addressable regions of conductive layer.

119. The RF-based treatment system of claim 10-8 further comprising an RF treatment system comprising an RF generator, the RF generator having an operating frequency that ranges from about 0.5 MHz to about 10 MHz, wherein the RF generator is in electrical communication with the electrical connector.

1210. The RF-based treatment system of claim 97, wherein the applicator further comprises an electrical connector, the electrical connector in electrical communication with one or more addressable regions of conductive layer, the electrical connector comprising a plurality of electrical contacts, wherein the copper traces arranged along the inner region are in electrical communication with the electrical contacts.

1311. The RF-based treatment system of claim 12-10 wherein copper traces arranged along the inner region are arranged in a series of three or more adjacent sections that increase in width in direction towards the electrical connector.

1412. The RF-based treatment system of claim 1, wherein conductive layer comprises a continuous copper sheet and wherein each of the N regions further comprises a first region of dielectric material having a first thickness and a first area, and a second region of dielectric material having a second thickness and a second area, wherein area of each region is greater than first area disposed therein, wherein each first area is greater than each second area.

1513. The RF-based treatment system of claim 10-8 further comprising an RF treatment system comprising an interface device in communication with the RF treatment system, the interface device comprising a clamp and a cable adapter, wherein the clamp opens and closes

to releasably connect and align with electrical connector, wherein cable adapter is in electrical communication with electric contacts of clamp.

~~16~~14. The RF-based treatment system of claim 1, wherein area of electrode ranges from about 50 cm<sup>2</sup> to about 600 cm<sup>2</sup>.

~~17~~15. The RF-based treatment system of claim 1 further comprising a heat shield layer, wherein conductive layer comprises arrangements of electrical traces, wherein heat shield layer covers a portion of inner region below which adjacent electrical traces span the portion and change in density along the portion.

~~18~~16. The RF-based treatment system of claim 1 further comprising one or more temperature sensors per each of the N regions.

~~19~~17. The RF-based treatment system of claim ~~18-16~~ further comprising an RF treatment system in electrical communication with the applicator and each temperature sensor, further comprising a control system, wherein control system selectively addresses each of the N regions to transmit RF energy sequentially to facilitate uniform heating according to one or more patterns.

~~20~~18. The RF-based treatment system of claim ~~18-16~~ further comprising an RF treatment system in electrical communication with the applicator and each temperature sensor, further comprising a control system, wherein control system selectively bypasses one or more of the N regions in response to an operator selection that the one or more N regions is positioned above a sensitive tissue region.

~~21~~19. The RF-based treatment system of claim 1, wherein the plurality of layers further comprises one or more adhesive layers, a polyamide layer, and an aqueous gel layer.

~~22. A method of treating tissue using an RF-based applicator, the method comprising~~  
~~providing a flexible applicator comprising an elongate inner spine region and a plurality of regions extending therefrom, wherein each of the plurality of regions is bounded by a first kerf and a second kerf; and~~  
~~transmitting RF energy from each of the plurality of regions according to an alternating or sequential addressing scheme to raise tissue below applicator to a target temperature during an initial heating time period.~~

~~23. The method of claim 22 further comprising shielding the inner spine region to avoid unwanted heating of target tissue below inner spine region of applicator.~~

24. ~~The method of claim 22 further comprising controlling transmission of RF energy such that one or more sensitive regions below one or more of the plurality of regions is not interrogated with RF energy.~~

25. ~~The method of claim 22 further comprising controlling transmission of RF energy such that one or more sensitive regions below one or more of the plurality of regions is cosmetically treated to increase or initiate lipolysis, skin tightening, and cellulite reduction.~~