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(54) Title: WIDE BAND RECONFIGURABLE PLANAR ANTENNA WITH OMNIDIRECTIONAL AND DIRECTIONAL RADIATION PATTERNS

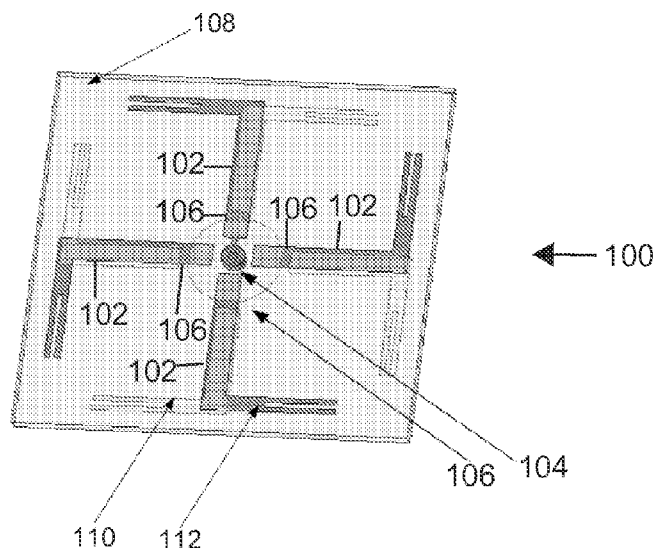


FIG. 1

(57) Abstract: A planar reconfigurable antenna that is capable of generating omnidirectional and directional radiation patterns over a wide frequency band or over multiple frequency bands includes a substrate, one or more pairs of conductive elements on at least one side of the substrate, a common RF feed point, and respective switches that selectively connects one or all of the conductive elements to the common RF feed point. An omnidirectional radiation pattern is generated when all of the conductive elements are connected to the common RF feed point, while a directional radiation pattern is generated when only a pair of conductive elements on opposite sides of the substrate are connected to the common RF feed point. In the directional radiation mode, the conductive elements that are not connected to the common RF feed point act as a reflector for other conductive elements that are connected to the common RF feed point.



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