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ABSTRACT



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LOW-HEIGHT, LOW-COST, HIGH-GAIN ANTENNA AND SYSTEM FOR MOBILE PLATFORMS

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A leaky waveguide antenna array that receives and/or transmits electromagnetic signals includes a plurality of radiation waveguides disposed in parallel to each other on a surface plane to form the antenna array. A feed waveguide is located below the surface plane and provides an electromagnetic signal to the plurality of radiation waveguides and/or receives a plurality of electromagnetic signals from the plurality of radiation waveguides and provides a composite electromagnetic signal at an output of the feed waveguide. Each of the plurality of radiation waveguides has a longitudinal waveguide axis and includes a plurality of apertures arranged in a direction of the longitudinal waveguide axis.

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Fig. 1