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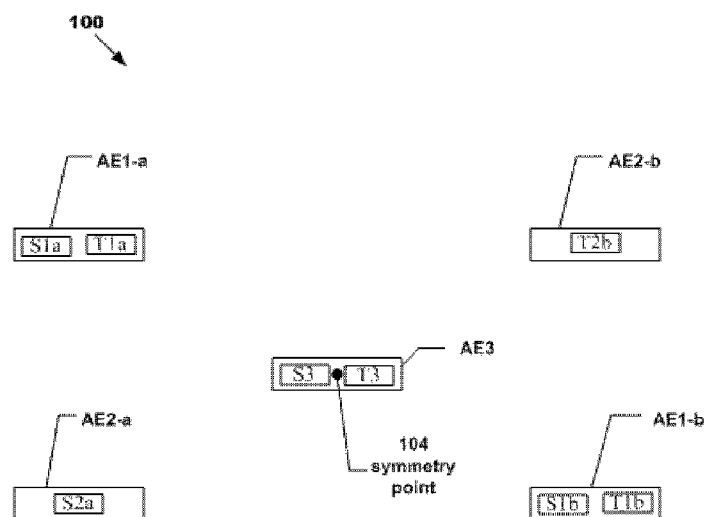


FIG. 1

(57) Abstract: A method is provided for using an antenna array to create two beams (a first beam and a second beam). In one aspect, the method uses dual polarization beam forming, which allows for many degrees of freedom in designing a desired power pattern. The method is well suited for systems with multiple radio chains (e.g., systems with active antennas). The method is also well suited for multi-port systems such as TD-SCDMA. In some embodiments, the method produces two beams where (a) the shape of the power beam pattern for the first beam and the shape of the power beam pattern for the second beam are the same (or substantially the same) in a plurality of directions of interest and (b) the beams have orthogonal (or substantially orthogonal) polarizations in the coverage area.