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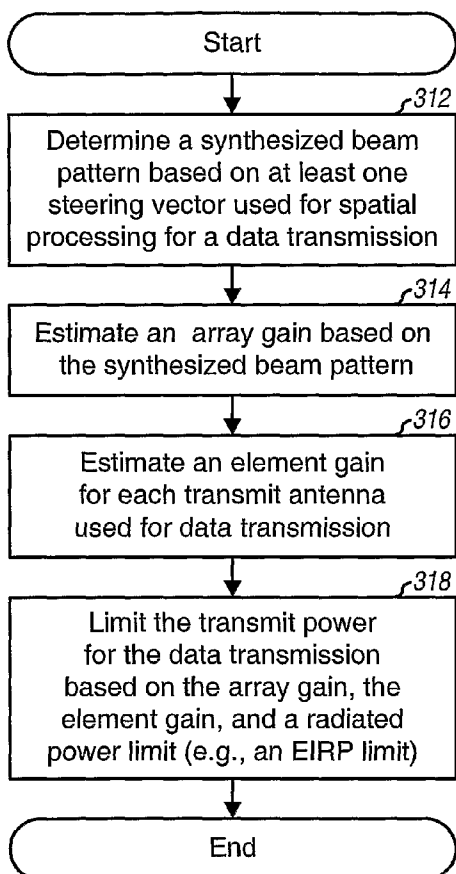
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(54) Title: **RADIATED POWER CONTROL FOR A MULTI-ANTENNA TRANSMISSION**



(57) Abstract: To meet a radiated power limit, a transmitting station determines a synthesized antenna pattern based on steering vectors used for spatial processing and estimates an array gain based on the synthesized antenna pattern. Different spatial processing modes (e.g., eigensteering and spatial spreading) result in different synthesized antenna patterns. The array gain may be estimated based on the spatial processing mode used for the data transmission and applicable parameters (e.g., eigenvalues) for that mode. An element gain for each antenna used for data transmission may also be estimated. The transmitting station then limits the transmit power for the data transmission based on the array gain, the element gain, and the radiated power limit, which may be an effective isotropic radiated power (EIRP) limit imposed by a regulatory agency.

WO 2006/094255 A1

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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