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Chae et al.

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(54) **APPARATUS AND METHOD FOR RECEIVING DATA IN A MOBILE COMMUNICATION SYSTEM USING AN ADAPTIVE ANTENNA ARRAY SCHEME**

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(Continued)

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(57) **ABSTRACT**

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A mobile communication system receives a reception signal, and determines a first error value by using a first scheme, and a second error value by using a second scheme, and determines a first scheme application weight according to a difference between the first error value and the second error value, and a second scheme application weight according to the difference between the first error value and the second error value, and generates a third error value using a scheme that combines the first scheme to which the first scheme application weight is applied and the second scheme to which the second scheme application weight is applied, and determines a reception beam weight using the reception signal, the third error value, and an output signal generated by applying the reception beam to the reception signal, wherein the reception beam weight is used for generating the reception beam.

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(52) **U.S. Cl.** **375/148**; 375/340; 375/346; 455/63.1; 455/65

(58) **Field of Classification Search** 375/130-153, 375/267, 346-349, 229-233, 340; 455/506, 455/524, 63.1, 65, 561, 562.1
See application file for complete search history.

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12 Claims, 8 Drawing Sheets

