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(54) **ANTENNA MODULE AND DESIGN METHOD THEREOF**

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(58) **Field of Classification Search** 343/700 MS, 343/702, 846, 909, 767
See application file for complete search history.

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(57) **ABSTRACT**

An antenna module is provided. The antenna module includes an antenna and an EBG element. The EBG element includes an EBG ground layer, a plurality of reflective units and a plurality of connection posts. The reflective units are arranged in a matrix, a gap is formed between the nearby reflective units, and the reflective units are corresponding to the antenna. Each connection post connects the reflective unit to the EBG ground layer.

9 Claims, 5 Drawing Sheets

