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(57) Abstract :

The invention relates to a multi-input multi-output (MIMO) antenna for in n77 and n78 wireless applications. The antenna comprises a substrate of a predefined thickness and a predefined permittivity, and one or more radiating elements configured at predefined positions on a first plane of the substrate. Each of the radiating elements has a lotus shape profile comprising a crescent-shaped structure, and five lobes of elliptical shape oriented at predefined angles with respect to the crescent-shaped structure. The antenna further comprises one or more ground configured opposite to one or more radiating elements and a decoupling element of square shape having a predefined dimension configured at the center on a second plane of the substrate. The antenna has an Envelope Correlation Coefficient (ECC)<0.005, a Channel Capacity Loss (CCL)<0.001, a Diversity Gain>9.95dB, a Mass Effective Gain (MEG) Ratio~0dB, and a Total Active Reflection Coefficient (TARC)<5.0dB.

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