

Novel Microstrip MIMO Antenna for 3G/4G Applications

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Abstract : A compact ultra-wide band micro-strip MIMO antenna is introduced. The antenna consists of two elements each of size 24X24 mm² (square millimetre) while the total MIMO size is 58X24 mm² after the spacing between MIMO elements and adding a decouple circuit. The first one covers from 3.29 to 6.9 GHZ using digital ground and the second antenna covers from 8.76 to 13.27 GHZ using defective ground. This type of antenna is used for 3G and 4G applications. The introduction for the antenna structure and the parametric study (reflection coefficients, gain, coupling and decoupling) will be introduced.

Keywords : micro-strip antenna, MIMO, digital ground, defective ground, decouple circuit, bandwidth

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