A compact MIMO antenna of 52 x 40 mm2 is presented. It consists of four planar monopole (PM) antenna elements fed with 50-Ω microstrip-line designed on FR4 epoxy substrate. All planar monopole (PM) antennas are square shaped out of which PM1 & PM2 and, PM3& PM4 pairs are perpendicular to each other. Ground portion consists of rectangular slot for better impedance matching and four stubs are present to increase isolation and gain. The geometry was optimized to operate in the 3GHz to 12GHz. The proposed antenna was validated through experimental results and found reasonable agreement between the measured and simulated data.

References

11. HFSS 10.0 user’s manual, Ansoft Corporation, Pittsburgh.

Index Terms

Computer Science Wireless

Keywords

Planar monopole (PM), Multiple input multiple output (MIMO), Microstrip antennas.