Abstract

Wireless local area network (WLAN) applications nowadays has become more popular especially those operating in the S-band (2.0-4.5Ghz). This paper present the design and enhancement of gain and bandwidth of microstrip antenna using the Agilent layout and probe feed. The antenna were designed to operate at S-band (2.0-4.5GHz). The dimensions of each single element of the microstrip antenna, at the operating frequency was calculated using transmission line model and the S-parameters data were obtained using Agilent simulator. The scaling factor of 1.10 was considered for the design on FR4 substrate with $\varepsilon_r = 4.77$ with thickness of 1.62mm and 0.019 and proved to be operating with adequate bandwidth and radiation characteristics.

References

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