IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 1, June 2022
Impact Factor: 6.252

Performance Evaluation of Conformal Patch Antenna

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Abstract: *In recent years, there has been a great deal of interest in conformal antennas in both industry and science. In fact, this field of study now occupies the top of the research pyramid of many national research institutes. According to the latest market analysis report, conformal antenna sales are estimated to exceed $ 3 billion in 2017 and $ 300 billion in 2028. In addition, conformal antennas are attractive candidates for next-generation consumer electronics due to their lightweight, low manufacturing costs, ease of manufacture, and availability of inexpensive flexible substrates (paper, fiber, plastic, etc.). Flexible electronic systems i.e., conformal antennas, also include flexible antennas that provide additional room for system trade-offs and design flexibility. This type of antenna is designed for conformal antenna applications. The simulation work was performed using HFSS software which is a finite element procedure, and the antenna size was determined. The performance of the conformal antenna, including reflection attenuation, radiation pattern, gain and return loss was measured and the simulated results were found to be in good agreement with the simulated results of the standard antenna.*

Keywords: Reflection attenuation, radiation pattern, HFSS, gain, return loss

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Impact Factor: 6.252

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