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| **Abstract:** |  |
| In this paper, A standardized and implantable planar inverted f antenna is accomplished with modified design, featuring balanced size miniaturization for wireless communications. This antenna has an intensified reliability and feasibility in turns for performing for biomedical application. The proposed antenna is represented For MICS BAND. MICS band contains 402 to 405 MHz resonant frequency. This band has been chosen because of its tractability towards higher bandwidth with the decreasing size of the antenna. 12.5 × 12.5mm2 miniature dimension is offered this antenna. The antenna is observed a better resonant performance at different substrate material. Four different types of substrate materials as Rogers RO3010, Rogers RT3210, Rogers RT6010 and Alumina were used in order to design the antenna to observe which one yields a better performance for the desired antenna. The purpose of using those comparisons is to find the lowest return loss and also get an acceptable efficiency which causes the higher gain in the desired. antenna. Return losses, Radiation Patterns, S-Parameters is observed and analyzed the antenna performances by using CST Microwave Studio. | |