

Experimental Prototype

The experimental prototype of the antenna has been developed and the comparative measurements have been conducted. The experimentally measured return loss along with the corresponding numerical results is given in figure. Due to the fact that the numerical model does not exactly replicate the prototype geometry and characteristics there is a slight difference between the measured and calculated data. As it can be seen from the numerical solution qualitatively converges to the experimental result, namely at -6 db the difference between them is 22% and at -10db it is only 3%. This agreement justifies the validity of the method and the use of the above-mentioned pear shaped antenna. As the numerical experiments have shown, such antenna has no reactive near field that points to its well matching with the free space and the feeder.

