ABSTRACT

As recommended KOMINFO, analog broadcasting will experience migration to digital broadcasting in 2018. To support such changes, a reliable receiver antenna that is applicable to UHF Band for digital television is required. One type of antenna that can meet these needs is a koch fractal microstrip antenna.

In this final project, koch fractal microstrip antennas iteration two are designed with slot technique on groundplane for digital television that can work in accordance with digital television frequency allocation in Indonesia that is 478-694 MHz. The unification used is microstrip line using FR4-epoxy material with dielectric constant 4,3. Koch fractal iteration 2 is chosen because the resulting working frequency is suitable to be applied to digital television as well as other parameters such as vswr, bandwidth, return loss is good enough. Design and simulation using CST Studio Suite 2016 software.

Based on simulation and analysis that has been done show that fractal koch modified to groundplane slot can produce VSWR ≤1,796, gain 3,29 dBi, Return loss ≤-10,909 dB, bandwidth 265,5 MHz and have polarization of ellips and radiation pattern bidireksional.

***Keywords**: digital television, fractal koch, microstrip*