

## ABSTRACT

Technological advances are currently developing very rapidly. Especially in the absorbent field microstrip electromagnetic waves based on Artificial Magnetic Conductors (AMC). Electromagnetic wave absorbers have an important role for the protection of electromagnetic devices, especially devices that are vulnerable to radiation from electromagnetic waves. Therefore, research on electromagnetic waves that can work well according to specifications. In this final project, an AMC-based electromagnetic wave absorber is designed and uses fractal technique at a frequency of 3.5 GHz.

This Final Project conducts an electromagnetic wave absorber study to be applied in devices that use the frequency of textit ISM Band, Fractal Technique which is one of the techniques that is tried to be applied for the development of wave absorbers electromagnetism is expected to make developments in this last edition. In electromagnetic wave absorber applications, this technology is able to reduce the size of the device so that it can improve smaller material. In principle, this technique uses a layer of AMC textit (artificial magnet conductor) which has textit bandwidth greater. To get a high rate of acquisition which can be carried out at the desired frequency, a metal patch of absorbent is made with a certain form. In this study, an investigations into the rectangular patch form of an equilateral were performed Equipped on a FR4 Epoxy dielectric substrate with a thickness of 3.2 mm. Size of cell dielectric substrate the unit obtained for the rectangular shape is 17 mm. Next to get good results done literacy in fractal techniques and add thickness to the substrate. Get a wide working frequency around 3.5 GHz.

Keywords: *AMC, absorber, fractal, patch*