

ABSTRACT

Every material have the following constants : μ , ϵ , σ (permeability, permitivity, conductivity). This constants can be known through R,L, and C measurement. Microwave component also have the constant, toroid core or ferit for the example. There are two kind of ferit, soft and hard ferit. River sand is one kind of ferit with abundant stock in the nature.

To heighten local content, making a microwave component is necessary. Using abundant local material, especially for feromagnetik mixture. Therefore magnetic ring will be made. The ring will be used for toroida and transformator.

This final project will develop feromagnetik material (sand) into inductor core and microwave transformator. Clay is used as mixing material and sand is the main material. By choosing same composition and different size, and vice versa, different composition with the same size, it's hoped to get maximum result.