

ABSTRACT

Absorber is material that attenuate the energy in an electromagnetic wave. Absorber consists of cells or patch arranged periodically. The one purpose of an absorber is as antenna measurement parameter at anechoic chamber. Generally, electromagnetic absorber at anechoic chamber is using a big cone and pricey, it depends on generated frequency respon.

In this study, analyzed the effect of wave absorbing patches. The absorbent form used is a square patch that will be changed to single square resonator, double square resonator, quadruple square resonator and circle patch which is also changed to a single circle patch, double circle resonator, quadruple circle resonator and new layer added for each form. The purpose of resonator shape and new layer added is to decrease S11/Return Loss value.

From the simulation results, absorbers with the basic form of circle patch can provide a better S11 value than the basic form of the square patch. Absorbers with the basic form of square patch, the smallest S11 obtain in, single circle resonator form absorber has the smallest S11 value compared to all the simulated forms, with the S11 value of -16,63 dB with bandwidth of 53, 8 MHz at the working frequency of 2,22 GHz.

Keyword : Absorber, Square Patch, Single Square Resonator, Double Square Resonator, Quadruple Square Resonator, Circle Patch, Single Circle Resonator, Double Circle Resonator, Quadruple Circle Resonator, S11