

ABSTRACT

Microwave Slotted Line is used to measure microwave which is work in 300MHz-3GHz of frequency. This device could be categorized as a manual *Network Analyzer* supported with a *Smithchart*. *Network Analyzer* is used to measure the response frequency of DUT (Device Under Test) which being analyzed and also have RF signal source to generate the signal and can be used to trigger the device. This Slotted Line consists of some block which are Microwave signal Generator, isolator, slide voltmeter, and Slotted line.

This Final Project will be designed a Slotted Line with 300MHz-3GHz of frequency, 50Ω of line characteristic impedance and will be realized with five conductor line with 360mm of length made from signal copper wire and salt water as the dielectric. This will produce 50Ω characteristic impedance and $V_{swr} \approx 1$.

This prototype can be used to measure Zantenna, prime and second parameter and the material constant from cheap and mini microwave line. Whith the method that have been used. We will get a reliable computerization of antenna system.