

ABSTRACT

Remote Sensing Payload or RSPL is a remote sensing technology directly on the surface of the earth. In order to get a good result, then the interference such as noise and unwanted frequencies that entry into the system must be removed. To remove the interference we need a tool called Filter.

RSPL system using frequency 2415 - 2435 MHz. The frequency refers to LAPAN research where use of the S band can be used to design this filter. The method applied in the design of microstrip filter is open-loop squared ring resonator.. With this method is expected to produce a response filter with slope sharper, narrower bandwidth and smaller size filter.

In this final project has been created Band Pass Filter that is placed on the transmitter. Materials used in this filter is Duroid RT-5880 which has a dielectric constant of 2.2. Results of measurement of filter which is realized at a frequency of 2,425 GHz with good selectivity. Value of -19,864 dB return loss, insertion loss value of -3833 dB and the bandwidth of the filter is equal to 20 MHz.

Key Words : *Band Pass Filter, Remote Sensing Payload, Chebyshev*