

## **ABSTRACT**

*In this final project research on power divider that can be used in communication nano-satellite is a joint project (consortium) universities and institutes in Indonesia, a power divider which the author designed expected to be used as dividing lines between the transmitter (TX) and receiver (RX).*

*Thus the authors designing the power divider 1 to 2 can be used back and forth, input to output and output to input ( $s_{12}$ ,  $s_{13}$  and  $s_{21}$ ,  $s_{31}$ ) with insulation (clutch) The closest port is expected to -20 dB, it is expected the author so that each port, both input and output do not affect each other.*

*Design and realization of power divider in this Final Project in general is quite good when compared to predetermined specifications. Insertion loss values obtained ranged in 3 dB according to the desired specifications is 6 dB as well. VSWR values obtained are also quite good with maximum 1,1 value, although there are touching 1,165. However, the overall value of the VSWR is around 1.1. Insulating value obtained is also quite good. The expected value is more than 20 dB isolation. Meanwhile, the largest isolation gained by 18.891 dB and the lowest was 18.456 dB.*

**Keywords: Nano Satellites, Power Divider, Receiver and Transmitter**