

ABSTRACT

Power combiner is an important tool in the transmitter system. This tool is used to combine the power is going through its input port. In addition, a power combiner is a passive microwave components can be used to merge the power, can also be used to divide power. That is because both the input ports and output ports match.

In this final project, power combiner is made to work in the frequency range 470 MHz – 862 MHz. It is due to be implemented on a tv transmitter. The method used is the Wilkinson's method and realized with microstrip technology.

The results of measurement power combiner, VSWR maximum value at input port is 1.079 and at the output port is 1.098. The maximum isolation between the input port is 35.69421 dB, return loss at the input port has maximum value in -30.7142 dB and at the output port maximal in -26.064 dB. For the insertion loss has a maximum value in 0.187 dB and the power combiner has inphase characteristics.

Keywords: Power combiner Wilkinson, microstrip