

## ABSTRACT

Microwave telecommunications device will expand with the existence of information transfer make a move the broadband communications, with support this matter is needed by prototype of functioning sirkulator isolator and as electromagnetic wave rectifier.

circulator represent the passive peripheral of microwave having the character of the non reciprocal ( clockwise ) and own 3 terminal or more, where each, every terminal own the different function of circulator which have been made by that is Y circulator & isolator, using a earthen ferrite and neon ferrite with the certain composition.

In this final project have been realized by Y circulator & isolator with the specification  $VSWR \leq 1,5$  at frequency region 1500 MHz - 2500 MHz , impedance in every terminal  $50 \Omega$  expected insulation loss  $\geq 30$  dB and insertion loss of equal to  $\leq 0.5$  dB, So that peripheral of sirkulator Y & this isolator can be used at peripheral of broadband communications.

Performansi Y circulator & this Isolator is visible from measurement result, that is :  $VSWR \leq 1,5$  at Terminal A in frequency 2017,79-2500,08 MHz Terminal B in frequency 1858,01-2010,46 MHz, and Terminal C in frequency 1520,01-1762,46 MHz. Impedance in every terminal come near  $50 \Omega$  though do not in every frequency function, with the Insulation ranging from 26-62 dB and Insertion loss range from 0,29-1,45 dB