

ABSTRACT

800 Mhz ultrawideband pancacula omnidirectional antenna prototype has been created using transformer balun with ferrit based exponential channel.

To up grade reliability and increase the local content, in this final project will be designed and realized that antenna without ferrit as final project.

To know the performance of the designed antenna based on the specification that has been ruled before, in this final project also will doing some measurement and parameter trial.

In realization, had found bandwidth at 1200-1672,5 MHz frequency range, frequency range 1875-2280MHz, and in the frequency range 2505-2775MHz. So, on this project, there are three frequency range of the antenna is 472,5 MHz, 405MHz and 270 MHz in restriction $VSWR \leq 1,5$. While the gain obtained from the measurement results are the initial specifications of 8,2175 dBi (1875MHz); 6,315dBi (1200MHz); 8,185dBi (2775MHz). Radiation pattern of results is the measurement of polarization and omnidireksional ellipse-shaped.

Keyword : ferrit, exponential.