

ABSTRACT

All communication radio system as like move or not always using antenna. Antenna is a device to changed wave guide that passed by on transmission channel to propagation wave or just the opposite. Antenna is useful in telecommunication system. Antenna can be used not only as a transmitter but also as a receiver in communication system. Nowadays, the microwave communication needs the width band antenna in order to economize the RF channel and decrease the tower burden.

This project aims to the Design and Realization of Chebyshev Unidirectional Pancacula Antenna at Frequency 0,3 – 3,0 GHz with Monopol Portion. Chebyshev Unidirectional Pancacula Antenna based on two wires, this antenna matched by $\lambda/4$ chebyshev for wide band. The result of measurement specifications are widthband 2275 MHz with $VSWR \leq 1,5$, obtained gain 6,95 *dBi* on minimum frequency 685 MHz, 12,26 *dBi* on 1822 MHz and 10,93 *dBi* on high frequency 2960 MHz, unidirectional polaradiation and elips polarisation.

Keyword : pancacula antenna, frequency, monopole, transformation $\frac{\lambda}{4}$ Chebyshev