# ABSTRACT

Butterfly-Magnetical-Dipole Unidirectional-Collinear Antenna is axis array of Butterfly-Magnetical-Dipole Antenna. Design and realization antenna in this last project consist of three Butterfly-Magnetical-Dipole element that is construction from wave guide metal rectangular to using $TE_{1,0}$ mode . Antenna is designed in ISM-2 (2400 MHz-2485 MHz). Radiation pattern of this antenna is unidirectional, result from to construct slots in one side so that radiation pattern such as designed.

By definition helping of directivity and gain, will get three element that is needed to get gain $\geq$ 6 dBi. Design and realization antenna in this last project that is construction from wave guide metal rectangular without reason that wave guide metallic rectangular distribution fields more stabil and dimension large small equal wave guide metallic silindrical with full QCD and $TEM_5O$.

To know performance of this antenna is needed a measurement mechanism. The measurement consist of VSWR measurement, bandwith, radiation pattern and antenna gain. From measurement result is got bandwith with VSWR = 1,4 limits 92 MHz = 3,77%, can get gain 22,323 dBi in frequency design.