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**DESIGN AND IMPLEMENTATION OF OMNIDIRECTIONAL  
RECEIVER ANTENNA  
AT FREQUENCY 400 MHz – 800 MHz**

**ABSTRACT**

Television is one of the wireless-based electronic media created as a solution to the problem of information dissemination and as a means of entertainment on society by a television transmitter station. Thus, good signal reception quality is also required to receive television pictures that good. In order for good signal reception quality, required antenna working in the UHF band to cover the operating frequency band diigunakan Television Transmitters in Indonesia. So far, many antennas on the market designed with the ability unidireksional while television stations in a region consisting of several television stations are located differently.

In this Final project designed and realized in the form of Turnstile Antenna by analyzing the optimal type of antenna to get enough gain with the specifications for the application of TV receivers. Antennas that can be made to work at frequencies 400-800 MHz with  $VSWR \leq 1.5$  limitations. For turnstile antenna radiation pattern is omnidirectional so that the antenna can receive waves from all directions with linear polarization. While the magnitude of the expected gain antenna is 6,89 dBi. The antenna was designed using a method which combines the dual resonator resonator in the form of two antennas whose dimensions are the same, to produce an antenna with optimal antenna capabilities such as radiation pattern, operating frequency and antenna gain (gain).  
Key words: Turnstile, UHF band, omnidirectional.