

ABSTRACT

Ground Segment Antenna is the part of Satellite Communication System, since the function as interface receiver between satellite and ground segment. Ground Segment direction is an important role for satellite communication system, direction from the antenna affect the communication performance. To set the antenna direction do process called pointing. By setting the parameter of the reflector satellite directional, consist of satellite position and ground segment position's Latitude and Longitude.

From the angel parameter, will be calculated in a software computer manner to get inclination and declination angel of antenna that converted to counter value form. The counter value thrown to controller section, and then the controller arrange the motor movement to set the reflector antenna direction toward satellite which desirable according with the parameter already set. The best antenna directional result will give best signal quality in signal receiver.

During the implementation and testing, the results obtained controller can arrange the dish to the satellite based on the position parameters in the software calculations. Indicator of the truth direction that is the output of the channel can be translated in the decode DVB-S.

Keywords: Latitude, Longitude, Microcontroller, Inclination and Declination