

ABSTRACT

Along with developments in world aviation, civil aviation, especially the more advanced and modern with high reliability, form in flight guidance system. For that necessary communications equipment and air navigation is one of ILS (Instrument Landing System). The use of ILS Localizer especially at airports is one of the supporting tools for safety and aviation security. The tool serves to guide or direct the aircraft toward the runway center line or center line of the runway in the landing process.

In this final project design and build a prototype transmitter block at the Instrument Landing System Localizer who worked on the region from 108 to 111.975 MHz. By strengthening the base analysis using the transistor BFR 91-A result of the gain of the power output from 2.4 times or equal to 8 dBm. In this ILS system modulation is AM-DSB-SC. To simplify the design, schematics used by application data sheets, in addition to the design of filters and amplifiers are used software orcad, mathcad and multisim to simulate circuits directly to obtain the appropriate results.

Measurements made using the transmitter block oscilloscope and spectrum analyzer to obtain information about the performance and characteristics of the prototype is made. Parameters that have been tested from the prototype block this transmitter is the frequency and magnitude of the response output power. At the time of testing or measurement using four samples of the author ie the frequency of 108.10 MHz, 109.70 MHz, 110.30 MHz and 111.90 MHz. Of all the measurement result ± 8 dBm output power.

Key word : Localizer, AM-DSB-SC