ABSTRACT

Loran (Long Range Navigation) is navigation system using long range radio wave where the transmission of precisely spaced pulses from which users can derive information of position, without using GPS. Loran is terrestrial radio system that use radio wave propagation characteristic above earth's surface called ground wave. One Loran system, in a country, contains several sub system called cell or as known as chain. One Loran system, with wide coverage area, consists of one master station and minimal two secondary stations. With self owning of navigational system, Indonesia can minimize their dependence from other country in order to improve national defense.

This final contain of design for device Loran-C transmitter using FPGA with DAC interface. Here, FPGA is used as digital signal processing. Start from generating to modulating signal. In order to be able transmitted, output from FPGA need to be converted into analog signal until the signal can be transmitted on radio stage.

Key words : Loran C, chain, GPS, FPGA, modulator, DAC