

ABSTRACT

Territorial waters of Indonesia are very broad and need extra tight security, apparatus limitations in maintaining and supervising the territorial waters of Indonesia has caused many to be looted fish, sea piracy, violations of the foreign ships, and smuggling. To increase the security of the Indonesian territorial waters by using radar technology.

In this final project is designed and realized slot waveguide antenna for radar applications that work on the sea supervisor 9.4 GHz frequency, with the number of slots are 8 slots. Bandwidth antenna 60 MHz, VSWR 1.426. Antenna radiation pattern unidirectional with a gain equal 8.555 dB. Rationing technique used is the coaxial feed and simulator's software using Ansoft HFSS v11.

Keywords: *radar maritime, antenna waveguide, antenna slot, ansoft*