

## ABSTRACT

Maritime radar system is one that uses radio frequency (RF) to determine location, speed and even the distance due to movement of an object such as a ship. This system works at X-band frequency of 10 GHz using the Doppler effect of law to determine the speed of the object.

In a maritime radar system, the wave emitted by the transmitter will be reflected by the object and received by the receiver. A signal received by the receiver is a signal that delays which frequency and amplitude changes. This is because the effect of speed, position and direction of movement of the object. Then the received signal is processed further by the signal processor for comparison with the signal received directly from the transmitter, so the position, velocity and direction of movement of objects can be detected.

**Keywords:** Maritime radar, FMCW, reflected signal, time delay.