ABSTRACT

Indonesia's geographical condition is a gift which is also a challenge for sustainable national development. Indonesia's geographical condition which consists of more than 17,000 large and small islands stretching from Sabang to Merauke requires to use satellites for communication and the utilization of space for sustainable national development and progress of the nation.

To resolve this problem one of solution is the development of Micro-Satellite Systems for the utilization of space Indonesia, such as for communication "Store & Forward", weather data collection, pengideraan far, surveillance and navigation.

In this final project will be design and realize modem micro satellite telemetry and telecommand on 436 MHz UHF frequency. Modem will be designed using IC TCM3105.

To test the modem used scheme of testing done by sending data from PC A then transmitted via modem and the transceiver which is assumed as a ground station. Then the signal received by the transceiver and the modem then go to PC B is assumed as the micro satellite.

Measurements to be performed is output on the ground station modem, the modem output on the satellite side, the magnitude of errors that occur during shipping, as well as the amount of delay in the delivery process.

Key words : Modem, Micro Satellite, IC TCM3105