

ABSTRACT

Communication technology is a vital aspect for citizens in this. With these conditions, cellular operators has not been able to provide a thorough and adequate coverage for citizens. Several cellular BTS still uneven and not reach isolated areas.

To solve these problems, there are some technologies that can be used. One of which is YateBTS using USRP B210 and USRP N210 radio board. YateBTS able to be an alternative for some functions of BTS. However YateBTS development requires free space on a frequency.

With the YateBTS which have been tested at the end of this project, it appears that YateBTS successfully transmit and receive GSM signals at a frequency of testing. Testing transceiver generates a signal log on trial area, which shows the testing of YateBTS and obtained the following results: Knowing the empty space GSM signal at a frequency of 945 Mhz is not been covered by the base stations of cellular operators, GSM signal transmission at a frequency of 945 Mhz and knowing the quality of the GSM signal produced.

Keywords : ***BTS, Telecommunications, YateBTS***