ABSTRACT

The development of today's telecommunications world is built based on technical standards and definitions developed from the telecommunications world , and set a guideline that each piece of equipment is plugged in between one another . Each telecommunication technology would require the power supply as the supply voltage . One example , the Airbridge Huawei BTS 3606 , power supply subsystem and the main part is very important to the performance of the entire device . Unstable voltage supply can cause damage to electronic equipment on the system . Therefore, to anticipate the need for a warning system to anticipate the supply voltage unstable . The principle works the tool works based voltage condition is detected on the status of the drop , normal and over . Voltage drop detection system tool here using microcontroller ATMega 8 as a whole system controllers , regulators direct current power source as a means of testing , 2x16 LCD to display the measured voltage value and status alerts , LED as an indicator of stress conditions , as well as a warning buzzer sounds in the event of supply voltage that is not normal . The voltage of the direct current source must first be converted to 0 -5V voltage level before going to pin Analog to Digital Converter using signal conditioning circuit consisting of a buffer circuit , a voltage divider circuit , and a Differential Amplifier circuit . Of the test as a whole , in a series of buffers contained the highest percentage error is 1.69 % , while the voltage divider circuit 15.38 % , and on a differential amplifier circuit Amplifier percentage error of 8.29 % is the greatest . Error condition is a condition often occurs in a regular series of this is because there is an error at the time of testing , quality components , and so forth .

***Keywords**: Airbridge Huawei BTS 3606, ATMega 8 , Differential Amplifier ,buffer, and Analog to Digital Converter.*