

## **ABSTRACT**

*In the world of broadcasting, particularly in the television world is still using an analog system for video transmission system in the form of composite video signals. Telkom Institute of Technology (ITT) itself, has established a campus TV to apply the same system. But its application is found in a variety of obstacles and disadvantages, one of which is the conversion of video signals are carried from the VGA video signal in composite video signals into a computer that takes an analog modulator to modulated and transmitted to the user.*

*In this thesis will discuss the manufacture of converter that can perform the conversion of video signals VGA (Video Graphics Adapter) into a composite video signal to be analyzed is the extent to which the level of accuracy and effectiveness of this device. In making this converter takes an encoder that can encode video signals into VGA video signal composite video signal so that later it is ready for the modulasikan by a modulator. In the final project will be designed an electronic circuit schematic and analyze circuit electronic circuit that produces a reliable and effective enough for a converter. Then, a series of schemes will be implemented so that later on the video signal converter VGA to composite video signal will be realized.*

*From the tests, the device has not managed to do the conversion of VGA video signal into composite video signal. This is because the value of output devices that are different from the existing reference data. Large output signal is generated close to or too far different from the reference data that is equal to 1.415 V with a frequency of 10MHz is compared with the data rate by 1.52 V with a frequency of 10 MHz. This failure is caused by damage of the IC due to excess supply AD725AR pk-pk voltage ( $V_{p-p}$ ) at 15V which should only be at 6V.*

**Keywords:** VGA (Video Graphics Adapter), Composite, Converter, Encoder