

## **ABSTRACT**

The increasing of information necessities that we feel today is supported by telecommunication technology advance. Various multimedia application can be used for many aspects of e-education, e-medical, e-trade, e-banking, and video on demand. Real time and reliable telecommunication device are needed to support those multimedia applications. That requirement are answered through HFC network.

The core of HFC network design is resulting network that able to transmit high quality signal to every subscriber devices. Every design steps needs some calculations to define the sort, value, and placement of network devices so that fulfill the transmission parameters.

This final project is about to design HFC network in Griya Tegalsari Asri Sragen. HFC network are later on is used as an infrastructure that able to support cable TV , internet, and multimedia services in Griya Tegalsari Asri Sragen. Design is done by using manual calculation and cabletools software. HFC network design is done in forward and reverse, therefore coaxial network with cable TV and high speed internet access services in Griya Tegalsari Asri Sragen can be delivered.