

ABSTRACT

Distance learning system is a method of learn in long distance by using a telecommunication media. This system enable two direction interactions between user. To support this system, a real time and reliable telecommunications media is needed. Coaxial network is one of network that match with such conditions. With sufficient frequency allocation (more than 870 MHz), coaxial network is expected to be able to transmit good signal either for voice, video and data services.

First step of coaxial network planning is defining the scope of networks and services, to estimate subscriber numbers, frequency allocation, and bandwidth which going to be used. The election of suitable network structure in the form of network topology and peripheral location allocation is the most needed part in planning network schemes. Quality standard of service signal is determined by measuring the accuracy in peripheral usage based on requirements of network and peripheral reliability.

Coaxial network performance is determined by many factors, such as subscribers minimum accepted level, Carrier to Noise Ratio (C/N), Composite Triple Beat (CTB), Composite Second Order (CSO), and Cross Modulation (XM), which derived by network that being used. The analysis of coaxial network planning process have to match network performance standard, which are: subscribers minimum accepted level equal to 3 dBmV - 15 dBmV, C/N bigger than 42 dB and other performance parameters (CTB, CSO, XM) may not less than 53 dB. With such performance standard, qualified signal service at subscriber node will be gain.