

ABSTRACT

Telecommunications network development to some wide area multimedia network. The appear problem is medium limited of information which high capacity. Then by fiber optic become one choise of transmission medium that enough trade on.

Such as the video multi channel distribution system, from transmitter to receiver used fiber optic medium because have excellent capable for bandwidth prepare. In distribubution used fiber optic singlemode, where low more total mode high more bandwidth that can be produce. For long distance transmission to receiver, certainly will appear high attenuation. For produce the optimal video multi channel power in receiver, so one solution is in a certain place amplifier on inline position of transmission link video multi channel distribution system for long distance between transmitter and receiver. In this is used EDFA (Erbium Doped Fiber Amplifier) for get a signal which be lost because attenuation on the transmission procees. This attenuation come from the fiber optic attenuation, connector attenuation and splicing attenuation.

After know how large attenuation occure so can be calculate where amplifier is placed for get the optimal video multi channel power in receiver with consider the amplifier characteristic.