

ABSTRACT

Accompanied with increasement of people life in a place certainly people's need in communication increases too. But need to be observe the communication network which is available now can serve the need for next years. so, need to build new efficient network.

In order to plan the new network certainly need to predict people's need of telephone and non telephone in future. This predict can be done with makro and mikro predicting and then both of them are compared, maxsimum deviation of both is 15 % .

The important item which are needed to plan new network of PON technology are OLT,ODN,PS and ONU. The result of prediction can be analyze the need of all item such as OLT 70 items , PS 185 items, ONU 643 items and fiber optic 3320 cores . Beside that is needed to analyze the attenuation which is caused by using all the items. With technical condition minimum receiving level -34 dBm so the result of analyzing in all point, is gotten minimum level -31,728 dBm to -27,9624 dBm.