

## ABSTRACT

*Network planning of Fibre Optic represent one of way to support the technological growth expecially in telecommunication, others this matter also can overcome the density trafik that happened at Digital Microwave transmission (GMD). Transmission Network of Denpasar-Amlapura is fibre optic which support by GMD radio. The optic network through this link actually end at Klungkung so in this case, will plan the Klungkung-Amlapura fibre optic network to obtain the optical network untill East Bali.*

*Network planning needs demand analysis and traffic analysis to each services (Voice, Telkomnet Instant, Speedy). Network of optic fibre between Denpasar-Amlapura is planned to accommodate the requirement of canal capacities up to year 2015. Transport technology of STM-N will be apply according to canal forecasting. Analysis of Power Link Budget and Rise Time Budget will apply to consider the configuration of implementation system have according to the standard.*

*Canal capacity which is needed to plan network of fibre optic in Denpasar-Amlapura link equal to 63 EI which same as 1x STM 1. Transmission technology used Single Mode G.652 Fibre Optic, Transmitter is Laser and Receiver is PIN. Final configuration need EDFA which will locate at Amlapura exchange such as optical pre-amplifier. The calculation of the configuration show that optical network planning pass the requirement of Power Link Budget and Rise Time Budget.*