Abstract

We have carried out the simulative investigation of FRA/EDFA- and FRA/SOA-hybrid amplifier configurations to capitalize on the optical span in this paper. The simulative results are discussed in three different cases by considering different configurations. In case A, a performance evaluation using different locations of EDFA and SOA in conjunction with FRA is carried out to implement a optical system with best QoS. Firstly, SOA acts as pre-amplifier and EDFA as post amplifier (Type I) while in (Type II), EDFA is taken as pre-amplifier, and SOA acts as post amplifier. In case B, we explored two different configurations for FRA in association with EDFA. FRA amplifier acts as pre-amplifier with EDFA (Type III) and then is taken as post amplifier (Type IV). In case C, FRA amplifier acts as pre-amplifier in association with SOA (Type V) and then, is taken as post amplifier (Type VI).

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Index Terms

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