

# Simulation of stimulated Raman fiber amplifier for optical transmission system

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=80347&lokasi=lokal>

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Abstrak

**ABSTRACT**

In particular we concentrate on mayor current implementations of optical fiber communications system which employ some form of intensity modulation (IM) of optical source, together with simple direct detection (DD) of the modulated optical signal at receiver- Good receiver where  $x$  is 0,3 (factor  $x$  ranges between 0 and 1.0 depending on the photo diode material )and SNR excess of 70 dB, is for 25 km transmission distance.

The deployment optical amplifiers, particularly on long IM/DD optical fiber link with RFR (flouride glass fiber in excess of 30 dB, and the Raman shift of 6097:6 cm<sup>-1</sup>) can be represented by an increase of 3.4 dB/km for the power level of 0 dBm and the signal input of 6097.6 cm<sup>-1</sup>.