Abstract

In this paper two configurations single and double stage with double pass technique are used with new flating technique. The “Optisystem version 13.0” software package is used for simulation process. By using single stage EDFA with double pass technique the gain ripple enhanced from $34.56\pm2.8$ to $35.21\pm0.43$ dB with using flating technique between the first and second passes, but it has high noise figure $5.98\pm1.12$ dB. The gain in the double stage EDFA with double pass technique is improved from $33.67\pm3$ to $34.60\pm0.56$ dB with using mid stage flating technique and the noise figure of it is $3.94\pm0.3$ dB.

References

New Method to Improve The Gain Ripple in Single and Double Stage Double Pass Erbium Doped Fiber Amplifier in Multichannel System


**Index Terms**

Computer Science Circuits and Systems

**Keywords**

EDFA, single stage, double stage, double pass, gain flatting, gain ripple