

A hybrid high-gain double-pass erbium-doped fiber amplifier with dispersion compensation feedback loop

ABSTRACT

A new double-pass erbium-doped fiber amplifier (DP-EDFA) using chirped fiber Bragg grating (CFBG) is reported here showing a gain of 53.4 dB and noise figure (NF) of 5.36 dB. The proposed amplifier at the same time provides dispersion compensation through the use of CFBG.

Keyword: Double-pass EDFA, Chirped fiber Bragg grating, Dispersion compensation