

Pump power distribution in bidirectional pumped dual-stage L-band EDFA

ABSTRACT

Bidirectional pumped dual-stage L-band EDFA utilizing a single power splitter and pump laser has been presented in this paper. A power splitter has been used to distribute the pump power bidirectionally to pump two EDFs with different length. An average gain of 18.6 dB with average NF of 8.6dB has been attained when the signal is equal to 0 dBm ranging from 1570 nm to 1605 nm signal. By using a single pump simultaneously with low gain ripple of less than 0.7 dB throughout the L-band transmission window.