

Title (en)

OPTICAL AMPLIFIER WITH POWER DEPENDENT FEEDBACK

Title (de)

OPTISCHER VERSTÄRKER MIT LEISTUNGSABHÄNGIGER RÜCKKOPPLUNG

Title (fr)

AMPLIFICATEUR OPTIQUE AVEC RETOUR DEPENDANT DE LA PUISSANCE

Publication

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Application

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Abstract (en)

[origin: WO0041346A1] An optical amplifier includes an optical feedback resonant laser cavity (OFRC) including a power dependent loss element (PDLE) having the characteristic that as the incident laser power on the PDLE increases the cavity loss decreases. The OFRC with the PDLE provides optical gain control or optical power control for a WDM amplifier or a single channel power equalization amplifier (PEA), respectively. A 1xNxN WADM node incorporating more than one of these amplifiers, at least some of which commonly share a pump source, and a method for controlling a transient power change in a single channel optical amplifier or reducing a DC gain error in a WDM optical amplifier that are subject to dynamically variable operating conditions at an input of the amplifier, are also disclosed.

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