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Patent Number(s): RU2454004-C2; RU2010105390-A

Title: 3R regenerator for fully optical time division multiplex systems has a directional coupler, a semiconductor optical amplifier, an optical switch, a clock signal source, an attenuator and a semiconductor amplifier, an insulator

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Abstract: NOVELTY - Invention relates to multichannel communication and can be used for 3R regeneration of a linear signal in fully optical multichannel time division multiplex systems. The apparatus has a directional coupler, a semiconductor optical amplifier, an optical switch, a clock signal source, an attenuator and a semiconductor amplifier, an insulator, an optical filter with wavelength 1555 nm, an amplifier for signal reconstruction based on amplitude in form of an erbium fibre-optic amplifier. The optical switch used is a terahertz optical asymmetric demultiplexer. The clock signal source has a terahertz optical asymmetric demultiplexer and a distributed-feedback laser, an insulator, an optical filter with wavelength 1562 nm, an attenuator and a semiconductor amplifier, a self-pulsed laser, a distributed-feedback laser and an electroabsorption modulator, a photodiode, two directional couplers and delay lines for multiplying clock pulse frequency.

USE - Information technology.

ADVANTAGE - Faster operation of the device.

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Derwent Class Code(s): U12 (Discrete Devices, e.g. LEDs, photovoltaic cells); W02 (Broadcasting, Radio and Line Transmission Systems)

Derwent Manual Code(s): U12-A01B; U12-A02B2A; W02-K02

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