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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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Derwent Primary Accession No.: 2012-H49987

Abstract: NOVELTY - Invention relates to multichannel communication and can be used for 3R regeneration 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 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 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

IPC: H04J-003/00

Patent Details:

Patent Number	Publ. Date	Main IPC	Week	Page Count	Language
RU2454004-C2	20 Jun 2012	H04J-003/00	201244		Russian
RU2010105390-A	20 Aug 2011	H04J-003/00	201245		Russian

Application Details and Date:

RU2454004-C2	RU105390	15 Feb 2010
RU2010105390-A	RU105390	15 Feb 2010

Priority Application Information and Date:

RU105390 15 Feb 2010