

Title (en)

OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT

Title (de)

OPTISCHES SYSTEM MIT EINER FM-QUELLE UND EINEM SPEKTRAL-NEUFORMUNGSELEMENT

Title (fr)

SYSTEME OPTIQUE COMPRENANT UNE SOURCE FM ET UN ELEMENT SPECTRAL DE REMISE EN FORME

Publication

**EP 1738504 A4 20170419 (EN)**

Application

**EP 05724041 A 20050228**

Priority

- US 2005006412 W 20050228
- US 54823004 P 20040227
- US 55424304 P 20040318
- US 56606004 P 20040428
- US 56773704 P 20040503
- US 56976904 P 20040510
- US 56976804 P 20040510
- US 62175504 P 20041025
- US 62974104 P 20041119

Abstract (en)

[origin: WO2005084268A2] In one form of the present invention, there is provided a fiber optic communication system comprising: an optical signal source adapted to receive a base binary signal and produce a first signal, said first signal being frequency modulated; and an optical spectrum reshaper adapted to reshape the first signal into a second signal, said second signal being amplitude modulated and frequency modulated; characterized in that: the frequency characteristics of said first signal, and the optical characteristics of said optical spectrum reshaper, being such that the frequency characteristics of said second signal are configured so as to increase the tolerance of the second signal to dispersion in a transmission fiber. In another form of the present invention, there is provided an optical transmitter comprising: a frequency modulated source for generating a first frequency modulated signal, and an amplitude modulator for receiving the first frequency modulated signal and for generating a second amplitude and frequency modulated signal.

IPC 8 full level

**H04B 10/2513** (2013.01); **G02B 6/12** (2006.01); **H04B 10/50** (2013.01); **H04B 10/516** (2013.01)

CPC (source: EP)

**H04B 10/25137** (2013.01); **H04B 10/504** (2013.01); **H04B 10/505** (2013.01); **H04B 10/5161** (2013.01); **H04B 2210/516** (2013.01)

Citation (search report)

- [XAI] US 2004008937 A1 20040115 - MAHGEREFTEH DANIEL [US], et al
- [IA] US 6104851 A 20000815 - MAHGEREFTEH DANIEL [US]
- [E] WO 2005092041 A2 20051006 - AZNA LLC [US]
- [E] EP 1569367 A2 20050831 - FUJITSU LTD [JP]
- [X] US 5371625 A 19941206 - WEDDING BERTHOLD [DE], et al
- [X] GB 2237469 A 19910501 - STC PLC [GB]
- [X] US 6486986 B1 20021126 - FUSE MASARU [JP]
- [X] KIKUCHI K ET AL: "In-Service Dispersion Monitoring in 32 x 10.7 Gbps WDM Transmission System Over Transatlantic Distance Using Optical Frequency-Modulation Method", JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE SERVICE CENTER, NEW YORK, NY, US, vol. 22, no. 1, 1 January 2004 (2004-01-01), pages 257 - 265, XP011107643, ISSN: 0733-8724, DOI: 10.1109/JLT.2003.822153
- See references of WO 2005084268A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2005084268 A2 20050915**; **WO 2005084268 A3 20070201**; CA 2557150 A1 20050915; CN 101073210 A 20071114; CN 101073210 B 20130417; EP 1738504 A2 20070103; EP 1738504 A4 20170419; JP 2007525909 A 20070906; JP 4584304 B2 20101117

DOCDB simple family (application)

**US 2005006412 W 20050228**; CA 2557150 A 20050228; CN 200580012705 A 20050228; EP 05724041 A 20050228; JP 2007500803 A 20050228