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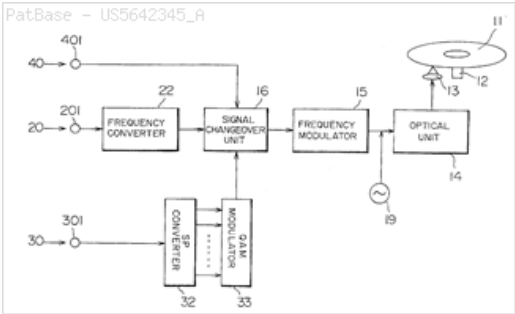
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Title: Recording/reproducing apparatus including frequency modulator for frequency-modulating digital-modulated signal and frequency demodulator for frequency-demodulating signal to obtain digital-modulated signal

Abstract: Source: US5642345A A recording apparatus includes a recording medium, a frequency modulator for conducting frequency modulation on a digital-modulated signal to generate a recording signal, and a recording unit for recording the recording signal on the recording medium.

Classifications:

International (ipc 8-9): G11B20/00 G11B20/10
H04N9/80 (Advanced/Invention);
G11B7/0045 H04N5/765 H04N5/775 H04N5/85 (Advanced/Non-invention);
G11B20/00 G11B20/10 H04N9/80 (Core/Invention);
G11B7/00 H04N5/765 H04N5/775 H04N5/84 (Core/Non-invention)
International (ipc 1-7): G11B20/10 G11B7/00 H04N5/76
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European: G11B20/00 H04N9/80 S11B7/0045 T04N5/765 T04N5/775 T04N5/85
US: 369/124 369/124.09 386/126 386/336 386/E09.011 386/E9.011 G9B/20



Family:

Publication number	Publication date	Application number	Application date
JP3085819 B2	20000911	JP19930118592	19930520
JP6333342 A2	19941202	JP19930118592	19930520
US5642345 A	19970624	US19940243911	19940517

Priority:

JP19930118592 19930520

Probable Assignee: HITACHI LTD

Assignee(s): (std): HITACHI LTD

Inventor(s): (std): KUREBAYASHI MASAOKI ; MIYAMOTO MAKOTO ; SUZUKI NAOMI ; NORO YOSHIHIKO ; SUZUKI YORIMI ; TOKUJIYUKU NOBUHIRO ; TOKUSHUKU NOBUHIRO

Title: MEANS AND METHOD FOR A SYNCHRONOUS NETWORK COMMUNICATIONS **SYSTEM**

Abstract: Source: US2001038674A Nodes on a network are synchronized with each other using a clock transfer **system**. The communications channels between the nodes are then measured and calibrated for optimal bandwidth. The optimized channels and synchronization enables a new form of signaling based on precise control of the frequency, amplitude, and phase of the waveform of the signal. Receiving nodes receive information in order to locate the signal at the appropriate frequency, phase and amplitude. Precision control of these parameters also serves as a unique signature of the transmitting node preventing security breaches as the signal's characteristic are unique to the transmitting node. The channel is continuously updated with a precision control **system** to insure that the nodes are not out of phase.

Classifications:

International (IPC 8-9): H03D1/04 H03D1/06 H03K5/01 H03K6/04 H04B1/00 H04B1/10 H04B3/32 H04J3/06 H04L1/00 H04L1/20 H04L25/03 H04L25/08 H04L25/14 H04L25/497 H04L7/00 (Advanced/Invention); H04J3/06 (Advanced/Non-invention); H04B3/02 H04L25/03 H04L7/00 (Core/Invention); H04J3/06 (Core/Non-invention)

International (IPC 1-7): H03D1/04 H03D1/06 H03H7/30 H03K5/01 H03K6/04 H04B1/00 H04B1/10 H04B15/00 H04L1/00 H04L25/00 H04L25/08 H04L25/40 H04L7/00

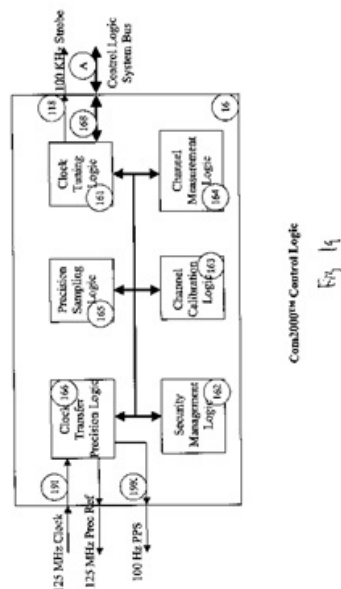
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European: H04B1/00 H04B3/32 H04L1/00A1 H04L1/00B5E H04L1/00B5L H04L1/20 H04L1/20J H04L25/03B1A5 H04L25/03B1A7 H04L25/08A H04L25/14 H04L25/497 H04L5/14P H04L5/16 H04L7/00B H04L7/00D T04J3/06C1 T04L1/00B5L T04L25/03B11A1 T04L25/03B13F1T3F T04L25/03B13F1T5 T04L25/03B15A3A T04L5/00A2A1

US: 370/286 370/289 370/503 370/503S 375/229 375/233 375/346 375/346P 375/348 375/348S 375/350 375/354 375/354P 375/355 375/355P 375/371 375/371S 455/296 455/296P 455/63.1 455/63.100S

PatBase - US2001038674_A1

Patent Application Publication Nov. 8, 2001 Sheet 1 of 66 US 2001/0038674 A1



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Priority:

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Probable Assignee: SAPPHIRE COMMUNICATIONS INC

Assignee(s): (std): NGOC THO L ; SAPHIRE COMMUNICATIONS INC ; SAPPHIRE COMMUNICATIONS INC ; TRANS FRANCOIS ; STANFORD SYNCOM INC

Assignee(s): BC LEOW ; CHUAN LEOW BAN ; LE NGOC THO

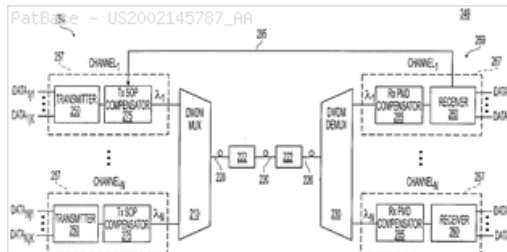
Inventor(s): (std): LE NGOC THO ; NGOC THO L ; TRANS FRANCOIS
Inventor(s): FRANCOIS TRANS ; THO LE NGOC
Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; SIM AND MCBURNEY; FENWICK AND WEST LLP
Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR
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MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT
TZ UA UG UZ VN YU ZA ZW

Title: **SYSTEM** AND METHOD FOR CODE DIVISION MULTIPLEXED **OPTICAL** COMMUNICATION

Abstract: Source: US2002145787A A **system** for **optical** communication forms a family of orthogonal **optical** codes modulated by a data stream. The orthogonal codes are formed by creating a stream of evenly spaced-apart pulses using a pulse spreader circuit and modulating the pulses in amplitude and/or phase to form a family of orthogonal **optical** code words, each representing a symbol. A spreader calibration circuit is used to ensure accurate timing and modulation. Each code word is further modulated by a predetermined number of data bits. The data modulation scheme splits a code word into H and V components, and further processes the components prior to modulation with data, followed by recombining with a polarization beam combiner. The data-modulated code word is then sent, along with others to receiver. The received signal is detected and demodulated with the help of a symbol synchronization unit which establishes the beginning and end of the code words. A polarization mode distortion compensator at the receiver cooperates with a state of polarization compensator at the transmitter to mitigate polarization distortion in the fiber.

Classifications:

International (IPC 8-9): G01B11/02 G01B9/02 G01F23/00 G01J1/10 G01J3/44 G01J3/45 G01J5/02 G01N21/17 G01N23/00 G01N23/201 G01T1/00 G02B6/12 G02B6/26 G02B6/34 G02B6/42 G02F1/01 G02F1/03 G02F1/035 G02F1/07 G02F1/125 G02F1/21 G02F1/225 G08B21/00 H01S3/063 H01S3/106 H04B10/00 H04B10/02 H04B10/04 H04B10/06 H04B10/08 H04B10/12 H04B10/148 H04B10/155 H04B10/18 H04B10/2543 H04B10/2563 H04B10/2569 H04B10/50 H04B10/508 H04B10/516 H04B10/532 H04B10/54 H04B10/556 H04B10/60 H04J11/00 H04J14/00 H04J14/02 H04J14/04 H04J14/06 H04J14/08 H04K1/00 H04L27/00 H04L27/18 H04L27/20 H04L27/28 H04L7/00 (Advanced/Invention);



G01B9/02 G02F1/21 G08B17/12 H01S3/16 H01S3/23 H04J13/00 H04J14/02 (Advanced/Non-invention);

G01B11/02 G01B9/02 G01F23/00 G01J1/10 G01J3/44 G01J3/45 G01J5/02 G01N21/17 G01N23/00 G01N23/20 G01T1/00 G02B6/12 G02B6/26 G02B6/34 G02F1/01 G08B21/00 H01S3/06 H01S3/106 H04B10/00 H04B10/04 H04B10/06 H04B10/12 H04B10/142 H04B10/152 H04B10/18 H04J14/00 H04J14/02 H04J14/08 H04L27/26 H04L7/00 (Core/Invention); G02F1/01 G08B17/12 H01S3/16 H01S3/23 H04J13/00 H04J14/02 (Core/Non-invention); G02B (Subclass/Invention)

International (IPC 1-7): G01B9/02 G02B6/00 G02B6/26 G02B6/34 G02F1/00 G02F1/01 G02F1/225 G02F1/335 G02F2/00 H01S3/19 H01S5/32 H04B10/00 H04B10/02 H04B10/04 H04B10/06 H04B10/08 H04B10/12 H04B10/18 H04J11/00 H04J13/00 H04J14/00 H04J14/02 H04J14/04 H04J14/06 H04J14/08 H04J4/00 H04L25/49

CPC: G01J3/02 G01J3/0205 G01J3/0224 G01J3/45 G01J9/04 G02B26/06 G01J3/0218 G01N21/636 G01N21/65 G01N2021/655 G01J3/4338 H04L27/18 H04L27/223 H04B10/25137 H04B10/2543 H04B10/505 H04B10/5051 H04B10/5053 H04B10/5057 H04B10/50572 H04B10/50577 H04B10/508 H04J14/08 H04B10/2569 H04J13/10 G02B6/12004 G02B6/12007 H04B10/50 H04B10/613 H04B10/6162 G02F1/225 G02F2203/06 H04B10/532 H04B10/541 H04B10/5561 H01L27/1446 H04B10/6151 H04B10/6163 H04B10/6165 H04L27/2096 H04L2027/0018 G01T1/167 G01V5/0016 H04B10/2563 H04B10/2572 H04B10/506 H04B10/118 H04B10/40 G02F2201/126 H04L7/0075 G02B6/4225 G01T1/2935 H04B10/5162 G01N21/45 G01N2021/1731 H04B10/5055 B82Y20/00 G02B6/1225 G02B6/2808 H04B10/1121 H01L31/0232 H01L31/0304 H04L27/2626 G01H9/00 G01H9/004 H04B10/548 H04B10/61 G02B6/126 G02B2006/12147 H04B10/2575 H04B10/611 H04B10/614 H04J14/06 H04B10/60 H04B10/11 H04B10/63 H04B10/64 H04J14/02 H04J14/0227 H04J14/0298 H04L9/0858 H04L27/0008 H04L27/2604 H04L27/2637 H04L27/2697 H04J14/0257 G01N21/3504 G01N21/171 G01N21/359 G01N21/39 G01N2021/1793 H04B10/516 G02B6/00 G02F1/125 G02F1/21 G02F2001/212 H01S3/0635 H01S3/0637 H01S3/1068 H01S3/1608 H01S3/2383 H04J14/005

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Family:

Publication number	Publication date	Application number	Application date
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Priority:

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WO2002US06330	20020228				

Probable Assignee: CELIGHT INC

Assignee(s): (std): CHO PAK S ; CHO PAK SHING ; GRIGORYAN VLADIMIR ; KHURGIN JACOB B ; KAPLAN ARKADY ; GREENBLATT ARTHUR ; LI GUOLIANG ; LEVY YURISTA GUY ; KERR CHRISTOPHER ; HARSTON GEOFFREY ; HARSTON GEOTHREY ; ACHIAM YAAKOV ; CELIGHT ; CELIGHT INC ; GOLDBERG JACQUES ; KHURGIN JACOB ; GENUSOV ALEXANDER ; TSEYTLIN ISAAC ; SCIABARRA CHARLES ; SCHWARZWALDER JOSEPH ; REINGAND NADEJDA ; SHPANTZER ISAAC ; SMILANSKI ISRAEL ; TSEYTLIN MICHAEL ; TSEYTIN MICHAEL ; MEIMAN YEHOUDA ; SALAMON AVIV ; REINGAND NADYA

Assignee(s): KINGET PETER ; FELDMAN PETER ; FELDMANN PETER ; SHAKED AMIR ; RITTERBUSH OLGA ; ROYCHOWDHURY JAIJEET ; KRISHNAPURA NAGENDRA ; CELIGHT INVESTOR GROUP II ACQUISITION CORP ; CELIGHT ACQUISITION CORP ; DEMIR ALPER

Inventor(s): (std): ARKADY KAPLAN ; ARTHUR GREENBLATT ; AVIV SALAMON ; CHO PAK S ; CHO PAK SHING ; DEMIR ALPER ; FELDMAN PETER ; FELDMANN PETER ; GREENBLATT ARTHUR ; GRIGORYAN VLADIMIR ; GUOLIANG LI ; GUY LEVY YURISTA ; HARSTON GEOFFREY ; ISAAC SHPANTZER ; ISRAEL SMILANSKI ; JACOB B KHURGIN ; KAPLAN ARKADY ; KERR CHRISTOPHER ; KHURGIN JACOB ; KHURGIN JACOB B ; KINGET PETER ; KRISHNAPURA NAGENDRA ; LEVY YURISTA GUY ; LI GIOULANG ERIC ; LI GUOLIANG ; MEIMAN YEHOUDA ; MICHAEL TSEYTLIN ; NADEJDA REINGAND ; REINGAND NADEJDA ; RITTERBUSH OLGA ; ROYCHOWDHURY JAIJEET ; SALAMON AVIV ; SCHWARZWALDER JOSEPH ; SCIABARRA CHARLES ; SHAKED AMIR ; SHPANTZER ISAAC ; SMILANSKI ISRAEL ; TSEYTLIN ISAAC ; TSEYTLIN MICHAEL ; VLADIMIR GRIGORYAN ; YAAKOV ACHIAM ; ACHIAM YAAKOV ; PAK SHING CHO ; TSEYTIN MICHAEL ; HARSTON GEOTHREY ; REINGAND NADYA ; GOLDBERG JACQUES ; KAZI SABERA ; HARSTON GEOFFREY ; GENUSOV ALEXANDER ; ACHIAM YASKOV

Inventor(s): LI GIOULANG ; PETER FELDMANN ; PETER KINGET ; ALPER DEMIR ; YEHOUDA MEIMAN ; NAGENDRA KRISHNAPURA ; OLGA RITTERBUSH ; JACOB KHURGIN ; JAIJEET ROYCHOWDHURY ; JOSEPH SCHWARZWALDER ; GIOULANG ERIC LI ; GIOULANG LI ; CHARLES SCIABARRA ; CHO PAK

Agent(s): PARLEE MCLAWS LLP ; HELLER EHRMAN WHITE AND MCAULIFFE LLP ; HELLER EHRMAN LLP ; CELIGHT INC ; PAUL ; REINGAND NADEJDA ; NADEJDA ; NADYA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: INCREASING DATA THROUGHPUT IN OPTICAL FIBER TRANSMISSION SYSTEMS

Abstract: Source: US2002167693A Data throughput rates are increased in an optical fiber communication system without requiring replacement of the existing optical fiber in a link. Channel throughput is increased by upgrading the components and circuitry in the head and terminal of an optical fiber communication system link. Aggregate throughput in a fiber optic link is increased beyond the range of conventional Wavelength Division Multiplexed (WDM) upgrades, while precluding the necessity of replacing existing fiber plants. The increase in system throughput is achieved by using advanced modulation techniques to encode greater amounts of data into the transmitted spectrum of a channel, thereby increasing the spectral efficiency of each channel. This novel method of increasing transmission capacity by upgrading the head and terminal of the system to achieve greater spectral efficiency and hence throughput, alleviates the need to replace existing fiber plants. Spectrally efficient complex modulation techniques can be supported by interface circuits with an increased level of signal processing capability in order to both encode multiple bits into a transmitted symbol and decode the original data from the received symbols.

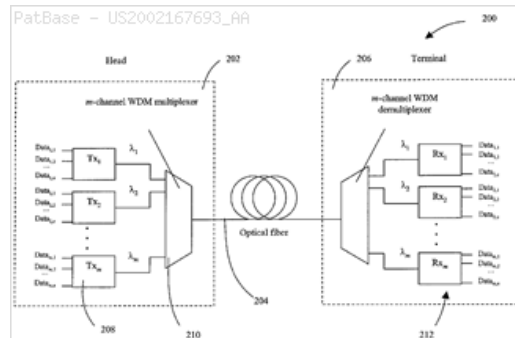
Classifications:

International (IPC 8-9): H03M1/66 H03M7/16 H04B10/00 H04B10/04 H04B10/06 H04B10/69 H04L1/00 H04L25/02 H04L25/03 H04L25/06 H04L25/26 H04L25/34 H04L25/49 H04L27/02 H04L27/04 H04L27/18 H04L27/36 H04L5/12 (Advanced/Invention); H03M1/66 H04L1/00 H04L25/03 H04L27/02 H04L27/34 (Core/Invention)

International (IPC 1-7): G02B6/28 H03M7/16 H04B10/00 H04B10/04 H04B10/06 H04B10/12 H04J14/02 H04L H04L25/03 H04L25/34 H04L25/49 H04L27/02 H04L27/04 H04L27/18 H04L27/36 H04L5/12 **CPC:** H04L1/004 H04L25/03343 H04L27/02 H04L27/367 H04L1/0042 G11C27/02 H03M1/08 H03M1/123 H03M1/1265 H03M1/745 H04B10/516

European: G11C27/02 H03M1/12S2N H04B10/516 H04L1/00B H04L1/00B3E H04L25/03B9 H04L27/02 H04L27/36G1 T03M1/08 T03M1/12M6 T03M1/74J2

US: 341/144 341/144P 341/61 359/109 359/124 359/154 359/173 359/181 359/189 359/245 375/286 375/286S 375/317 375/317P 385/24 385/24S 398/183 398/183P 398/200 398/200S 398/202 398/202P 398/27 398/27P 398/9 714/704

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: INTERSIL AMERICAS LLC

Assignee(s): (std): QUELLAN INC

Assignee(s): MORGAN STANLEY AND CO INC ; VRAZEL MICHAEL G ; RALPH STEPHEN E ; SCHMUKLER BRUCE C ; QUELLAN LLC ; CORDOVA INTELLIMEDIA VENTURES LP ; GEBARA EDWARD ; HIETALA VINCENT M ; HIETALA VINCENT MARK ; INTERSIL AMERICAS LLC ; JUNG SUNGYONG ; KIM ANDREW JOO ; LASKAR JOY

Inventor(s): (std): VRAZEL MICHAEL G ; RALPH STEPHEN E ; LASKER JOY ; KIM ANDREW JOO ; JUNG SUNGYONG ;

HIETALA VINCENT MARK ; HIETALA VINCENT M ; GEBARA EDWARD ; VINCENT M HIETALA ;
SUNGYONG JUNG ; SCHMUKLER BRUCE C ; LASKAR JOY ; KIM ANDREW J ; KIM ANDREW ; HIETALA
VINCENT ; BRUCE C SCHMUKLER

Inventor(s):

GEBARA EDWARD ATLANTA ; HIETALA VINCENT M ALBUQUERQUE ; JUNG SUNGYONG MARIETTA ;
LASKER JOY ATLANTA ; RALPH STEPHEN E ATLANTA ; VRAZEL MICHAEL G ATLANTA

Agent(s):

FINLAYSON AND SINGLEHURST; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER;
GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER ANWALTSSOZIETAET; SELIGSOHN
GABRIELI AND CO; EITAN PEARL LATZER AND COHEN ZEDEK; KING AND SPALDING LLP; KING AND
SPALDING

Designated states:

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DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ
LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD
SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Title: INTEGRATED ELECTRICAL/OPTICAL HYBRID COMMUNICATION SYSTEM WITH REVERTIVE HITLESS SWITCH

Abstract: Source: US2004146296A A **system** according to embodiments of the invention may include a first communication path that converts an **optically**-modulated source signal to a radio signal based on a detected degradation in a quality of a received **optical** signal, and a second communication path that converts a radio-modulated source signal to an **optical** signal based on a detected degradation in a quality of a received radio signal. The **system** has the ability to automatically adapt to diverse weather conditions to improve the reliability of a communication link without user intervention while supporting multiple modulation schemes.

Classifications:

International (IPC 8-9): H04B10/00 H04B10/10 (Advanced/Invention); H04B10/00 H04B10/10 (Core/Invention)

International (IPC 1-7): H04B10/08

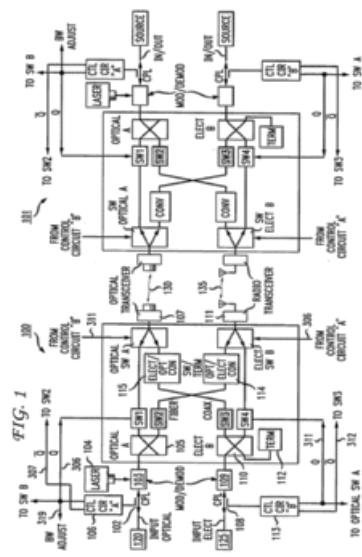
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European: H04B10/1123 H04B10/25752

US: 398/115 398/116 398/118 398/119 398/12 398/120 398/128 398/12P 398/17 398/19 398/22 398/23 398/24 398/74

PatBase - US2004146296_AA

Patent Application Publication Jul. 29, 2004 Sheet 1 of 10 US 2004/0146296 A1



Family:

Publication number	Publication date	Application number	Application date
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Priority:

US20020162641 20020606 US20030467856P 20030505 US20030735303 20031212
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Probable Assignee: AT AND T INTELLECTUAL PROPERTY II LP

Assignee(s): (std): AT AND T CORP ; AT AND T INTELLECTUAL PROPERTY I ; AT AND T IP II LP

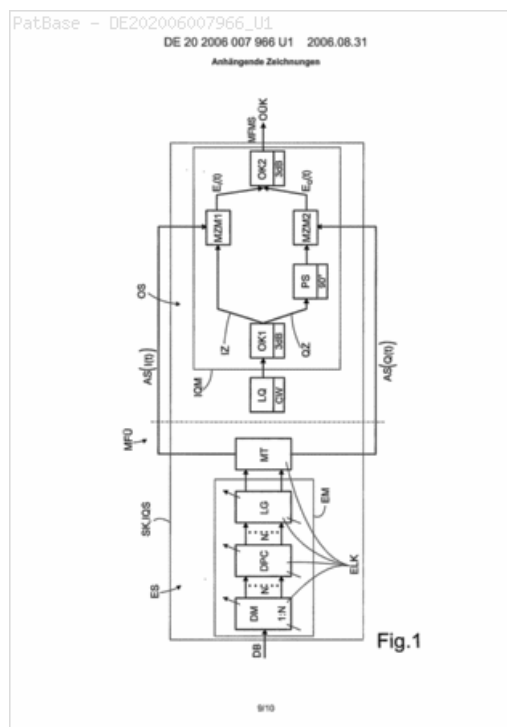
Assignee(s): AT AND T ; AT AND T INTELLECTUAL PROPERTY II L P ; AT AND T INTELLECTUAL PROPERTY II LP ; USGI MEDICAL INC ; GERSZBERG IRWIN ; OKORO JEREMIAH ; AT AND T PROPERTIES LLC

Inventor(s): (std): GERSZBERG IRWIN ; OKORO JEREMIAH ; OKORO JEREMIAH A

Agent(s): HOFFMANN AND BARON LLP

Abstract: Source: DE202006007966U1 An **optical** multi-format **transmission system** has on the **optical** side (OS) an **optical** IQ-modulator (IQM) independent of the modulation format in the **transmission** circuit (SK), and an **optical** IQ-homodyne receiver (IQE) in the reception circuit (EK) for converting M-value PSK- and M-value **QAM modulation** formats, and on the electrical side in the **transmission** circuit (SK) for driving the **optical** IQ- modulator (IQM) and in the reception circuit (EK) for signal processing the received data for an actual sampled M-value PSK- and M-value **QAM modulation** format.

International (IPC 8-9): H04B10/54 H04B10/548
H04L27/36 (Advanced/Invention)
CPC: H04B10/541 H04B10/548 H04L27/36
European: H04B10/541 H04B10/548 H04L27/36



Publication number	Publication date	Application number	Application date
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DE200620007966U 20060511

Assignee(s): (std): FRAUNHOFER GES FORSCHUNG

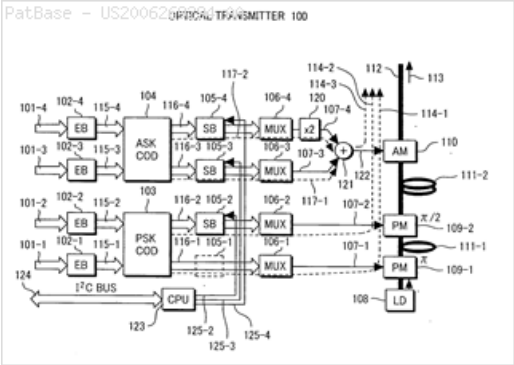
Assignee(s): FRAUNHOFER GES ZUR FOERDERUNG DER ANGEWANDTEN FORS ; FRAUNHOFER GES ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG EV ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWAN ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E V

Title: **OPTICAL TRANSMISSION** EQUIPMENT AND INTEGRATED CIRCUIT

Abstract: Source: US2006269294A **Optical transmission** equipment, capable of electrically adjusting the delay difference between a plurality of digital signal paths to be connected to a multilevel **optical** modulation unit or demodulation unit, having multiplexing circuits connected to the digital signal paths and a delay adjustment unit inserted in one of the digital signal paths to adjust delay of N-bit-parallel low-speed digital signals with the timing unit of a bit period of a high-speed serial digital signal to be outputted from multiplexing circuit.

Classifications:

International (IPC 8-9): H04B10/00 H04B10/04 H04B10/06 H04B10/07 H04B10/14 H04B10/142 H04B10/152 H04B10/155 H04B10/26 H04B10/28 H04B10/40 H04B10/50 H04B10/516 H04B10/524 H04B10/54 H04B10/556 H04B10/60 H04B10/61 H04B10/67 H04B10/69 H04J14/00 H04J14/02 H04L27/34 (Advanced/Invention); H04B10/00 H04B10/04 H04B10/06 H04B10/14 H04B10/142 H04B10/152 H04B10/26 H04B10/28 H04J14/00 H04J14/02 H04L27/34 (Core/Invention)
CPC: H04B10/5051 H04B10/5053 H04B10/5055 H04B10/5161 H04B10/541 H04B10/5561 H04B10/66 H04L27/2096 H04L27/223
European: H04B10/152 H04B10/505 H04B10/5051 H04B10/5053 H04B10/5055 H04B10/5161 H04B10/541 H04B10/5561 H04B10/66 H04L27/20P H04L27/22P
US: 398/102 398/161 398/161P 398/182 398/185 398/188



Family:

Publication number	Publication date	Application number	Application date
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JP4648093 B2	20110309	JP20050158926	20050531
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US7515832 BB	20090407	US20060354136	20060215

Priority:

JP20050158926 20050531

Probable Assignee: HITACHI LTD

Assignee(s): (std): HITACHI COMM TECH LTD ; HITACHI LTD

Assignee(s): HITACHI COMMUNICATION TECHNOLOGIES LTD

Inventor(s): (std): KIKUCHI NOBUHIKO ; NOBUHIKO KIKUCHI

Agent(s): STANLEY P FISHER REED SMITH LLP; REED SMITH LLP; MARQUEZ ESQ JUAN CARLOS A; JUAN CARLOS A

Title: SELECTIVELY APPLYING SPOTLIGHT AND OTHER EFFECTS USING VIDEO LAYERING

Abstract: Source: US2007120873A A video layer effects processing **system** which receives normal video and special effects information on separate layers has been presented. The **system** selectively mixes various video layers to transmit a composite video signal for a video display such as a television, or a virtual reality **system**. Special effects include spotlights, zooming, etc. Additional special effects such as shaping of objects and ghost effects are created by masking and superimposing selected video layers. The selective mixing, for example, to enable or disable, strengthen or weaken, or otherwise arrange special effects, can be directed from a remote source or locally by a user through real-time control or prior setup. The video layer effects processing **system** can also be incorporated into a set-top-box or a local consumer box.

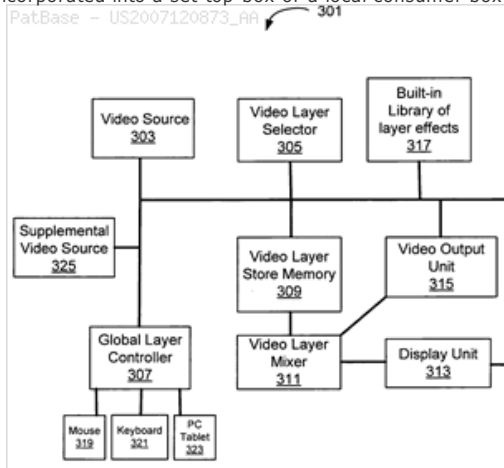
Classifications:

International (IPC 8-9): G09G5/00 H04B10/61 H04J14/00 H04L25/03 H04L27/00 H04L27/233 H04L27/38 H04N9/74 H04N9/76 (Advanced/Invention)

CPC: G11B27/034 G11B2220/455 H04N5/262 H04B10/613 H04B10/612 H04B10/6165 H04J14/002 H04L25/03019 H04L27/0014 H04L27/2331 H04L27/38 H04L2027/0024

European: G11B27/034 H04N5/262 S11B220/45A

US: 345/634 345/634P 348/578 348/584 348/584P 348/584S 348/591 348/598 348/E5.051 348/E50.51S 348/E9.055 348/E90.55S 398/202 398/208 398/209



Family:

Publication number	Publication date	Application number	Application date
US2007120873 AA	20070531	US20060403883	20060414
US2011102679 AA	20110505	US20110005302	20110112
US2015365174 AA	20151217	US20150790014	20150702
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Priority:

US20050740652P 20051130	US20060403883 20060414	US20110005302 20110112
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Probable Assignee: AVAGO TECHNOLOGIES GENERAL IP SINGAPORE PTE LTD

Assignee(s): (std): BROADCOM CORP ; KHARE RAJENDRA KUMAR ; MISHRA BRAJABANDHU ; RELAN SANDEEP KUMAR ; TECHNION RES AND DEV FOUNDATION

Assignee(s): TECHNION RESEARCH AND DEVELOPEMENT FOUNDATION LTD ; AVAGO TECHNOLOGIES GENERAL IP SINGAPORE PTE LTD ; BANK OF AMERICA NA COLLATERAL AGENT AS ; TECHNION RESEARCH AND DEVELOPMENT FOUNDATION LTD

Inventor(s): (std): KHARE RAJENDRA K ; KHARE RAJENDRA KUMAR ; MISHRA BRAJABANDHU ; RELAN SANDEEP K ; RELAN SANDEEP KUMAR ; TSENIKER IGOR ; SIGRON NETTA ; NAZARATHY MOSHE

Inventor(s): RELAN SANDEEP ; KHARE RAJENDRA

Agent(s): SQUIRE SANDERS AND DEMPSEY LLP; MCANDREWS HELD AND MALLOY LTD; THOMAS KAYDEN HORSTEMEYER AND RISLEY LLP; RECHES PATENTS

Title: PACKET VOICE GATEWAY

Abstract: Source: US2008002669A The methods and apparatus of the present invention can be used to provide a high quality of service across a network that includes packet-based technology. Use of the present invention can yield networks that are more efficient, more resilient and more reliable than prior networks, thus allowing service providers to provide voice and other high quality services through the use of packet networks.

Classifications:

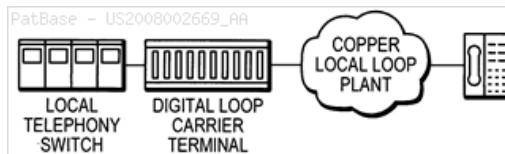
International (IPC 8-9): H04L12/66 (Advanced/Invention);

H04L12/66 (Core/Invention)

CPC: H04L12/66

European: H04L12/66

US: 370/352 370/352P



Family:

Publication number	Publication date	Application number	Application date
US2008002669 AA	20080103	US20070788173	20070418

Priority:

US20010322834P 20010914 US20020246577 20020916 US20070788173 20070418

Probable Assignee: TELLABS OPERATIONS INC

Assignee(s): (std): GRITTON CHARLES W K ; O BRIEN RAY ; RODEN ROBERT

Assignee(s): TELECOM HOLDING PARENT LLC ; TELLABS OPERATIONS INC ; CERBERUS BUSINESS FINANCE LLC
COLLATERAL AGENT AS

Inventor(s): (std): RODEN ROBERT ; O BRIEN RAY ; GRITTON CHARLES W K

Inventor(s): GRITTON CHARLES ; GRITTON CHARLES WK

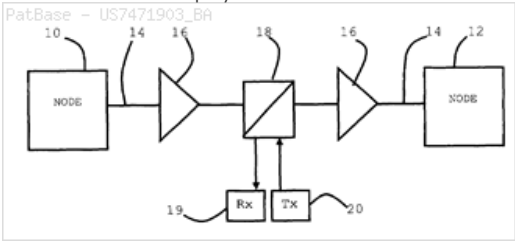
Agent(s): HAMILTON BROOK SMITH AND REYNOLDS PC

Title: **OPTICAL** COMMUNICATION **SYSTEM**

Abstract: Source: US7471903B An **optical** communications **system** has a transmitter which uses modulation using multiple level phase and/or amplitude modulation, and is adaptable to provide modulation for different signals using different selections of the multiple levels. A receiver is able to perform demodulation from the multiple level phase and/or amplitude modulation, and is adaptable to provide demodulation of signals modulated using the different selections of the multiple levels. This provides an adaptive modulation **system**, so that different bit rates can be employed for different links.

Classifications:

International (IPC 8-9): H04B10/04 (Advanced/Invention)
CPC: H04B10/5161 H04B10/541 H04B10/5561 H04B10/61 H04B10/6161 H04B10/6163 H04B10/63
European: H04B10/5161 H04B10/541 H04B10/5561 H04B10/61 H04B10/6161 H04B10/6163 H04B10/63
US: 398/185 398/194 398/198



Family:

Publication number	Publication date	Application number	Application date
US7471903 BA	20081230	US20020180595	20020626

Priority:

US20020180595 20020626

Probable Assignee: CIENA CORP

Assignee(s): (std): NORTEL NETWORKS LTD

Assignee(s): BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; CIENA CORP ; CIENA LUXEMBOURG SARL ; DEUTSCHE BANK NEW YORK BRANCH AG ; NORTEL NETWORKS LIMITED

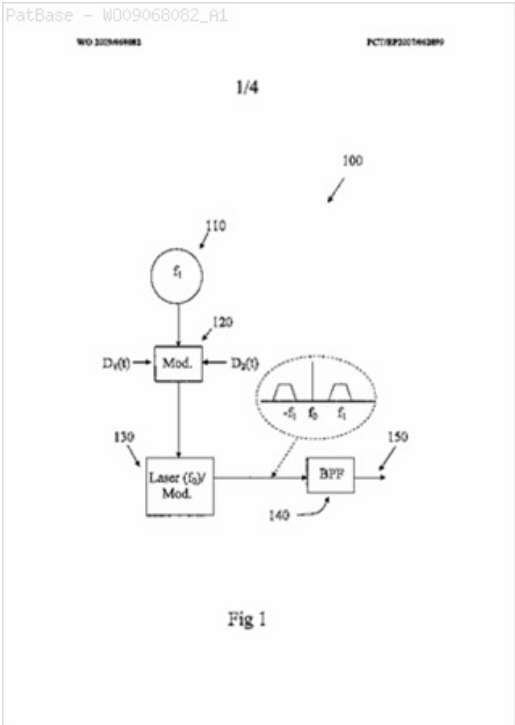
Inventor(s): (std): FRISKNEY ROBERT ; RICKARD ROBIN ; SPAGNOLETTI ROBERT ; SPARKS ADRIAN

Agent(s): BARNES AND THORNBURG LLP

Title: AN **OPTICAL** MODULATOR WHICH USES ELECTRICAL TECHNIQUES

Abstract: A device (100, 200) for generating an **optical** modulated signal (150, 250), comprising means (120, 220) for encoding a first data stream (D1) of digital data onto an electrical carrier of a first carrier frequency (f1). The device also comprises means (130) for modulating an **optical** carrier signal with the encoded electrical carrier, so that a modulated **optical** signal (150, 250) is generated, the modulated **optical** signal comprising a center frequency (f0) as well as one positive (f1) and one negative (-f1) sideband signal. The device further comprises means (140) for filtering out one of said sideband signals (-f1, f1). The device may also comprise means for encoding a second data stream (D2) of digital data onto the electrical carrier.

Classifications:
International (IPC 8-9): H04B10/155
H04B10/516 (Advanced/Invention);
H04B10/152 (Core/Invention)
CPC: H04B10/516
European: H04B10/516



Family:

Publication number	Publication date	Application number	Application date
WO09068082 A1	20090604	WO2007EP62899	20071127

Priority:

WO2007EP62899 20071127

Probable Assignee: ERICSSON TELEFON AB L M

Assignee(s): (std): ERICSSON TELEFON AB L M ; OLSSON BENGT ERIK

Assignee(s): TELEFONAKTIEBOLAGET LM ERICSSON PUBL

Inventor(s): (std): OLSSON BENGT ERIK

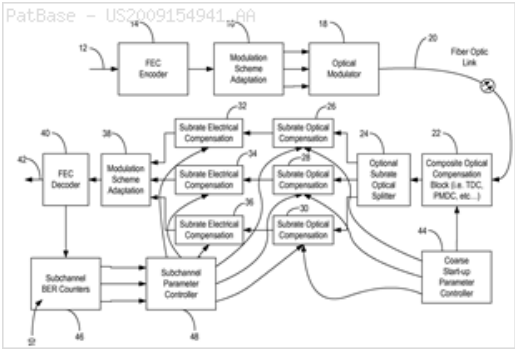
Agent(s): MOLKER ANDERS

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **SYSTEMS** AND METHODS FOR COMMUNICATION **SYSTEM** CONTROL UTILIZING CORRECTED FORWARD ERROR CORRECTION ERROR LOCATION IDENTIFIERS

Abstract: Source: US2009154941A The present invention provides **systems** and methods for communication **system** control utilizing corrected forward error correction (FEC) error location identifiers in **multi-level** modulation scheme **systems**. The present invention utilizes precise error correction information, available for each FEC block of a particular code (including, but not limited to, block codes and concatenated block codes employing iterative decoding as well as convolutional codes (including turbo codes) and low-density parity-check code (LDPC) class codes) used (e.g., Bose, Ray-Chaudhuri, Hocquenghem (BCH), Reed-Solomon, etc.), as a result of the FEC decoding process to provide feedback to close the loop for control of a demodulator (i.e., receiver). Each error location can be uniquely traced back to a particular sub-rate signal path, with running, post-FEC corrected BER (bit error rate) calculations generated on each sub-rate signal. Advantageously, this provides the ability to adjust thresholds and various other parameters to achieve and maintain error-free operation quickly.

Classifications:
International (IPC 8-9): H04B10/06 (Advanced/Invention);
H04B10/06 (Core/Invention)
CPC: H04L1/005 H04L1/0057 H04L1/0059 H04L1/0066
European: H04L1/00B5E5 T04L1/00B7B T04L1/00B7C
T04L1/00B7K3
US: 398/208 398/208P



Family:

Publication number	Publication date	Application number	Application date
US2009154941 AA	20090618	US20070954980	20071212
US7962049 BB	20110614	US20070954980	20071212

Priority:
US20070954980 20071212

Probable Assignee: CIENA CORP
Assignee(s): (std): ARCHAMBAULT JEAN LUC ; CIENA CORP ; FRANKEL MICHAEL Y ; MATEOSKY JOHN P
Assignee(s): DEUTSCHE BANK NEW YORK BRANCH AG ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS
Inventor(s): (std): ARCHAMBAULT JEAN LUC ; FRANKEL MICHAEL Y ; MATEOSKY JOHN P
Agent(s): CLEMENTS BERNARD PLLC; CHRISTOPHER L; JEFFREY M

Title: SPECTRALLY EFFICIENT PARALLEL **OPTICAL** WDM CHANNELS FOR LONG-HAUL MAN AND WAN **OPTICAL** NETWORKS

Abstract: Source: US2010021166A Techniques, apparatus and **systems** for **optical** WDM communications that use spectrally efficient parallel **optical** WDM channels for WAN and MAN networks.

Classifications:

International (IPC 8-9): H04B10/02 H04B10/12 H04B10/13

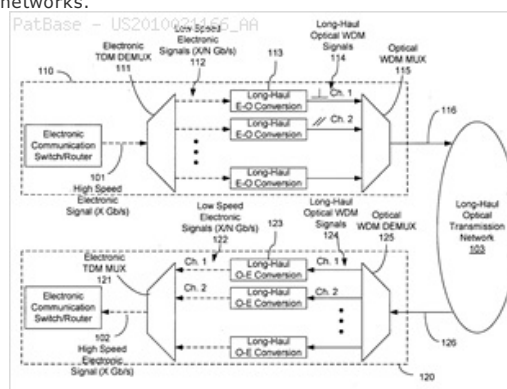
H04J14/02 H04J14/06 (Advanced/Invention);

H04B10/02 H04B10/12 H04B10/13 H04J14/02 (Core/Invention)

CPC: H04J14/0246 H04J14/02 H04J14/0279 H04J14/06 H04J14/0256
H04J14/026 H04J14/0276 H04K1/08

European: H04J14/02 H04J14/02M H04J14/06 T04J14/02N1

US: 398/79 398/79P



Family:

Publication number	Publication date	Application number	Application date
EP2260591 A2	20101215	EP20090712882	20090223
EP2260591 A4	20131023	EP20090712882	20090223
US2010021166 AA	20100128	US20090391256	20090223
WO09105281 A2	20090827	WO2009US01159	20090223
WO09105281 A3	20091203	WO2009US01159	20090223

Priority:

US20080030936	20080222	US20080030936P	20080222	US20080096730P	20080912
US20090391256	20090223	US20080096730	20080912	WO2009US01159	20090223

Probable Assignee: SNELL HOLDINGS LLC

Assignee(s): (std): OPVISTA INC ; VELLO SYSTEMS INC ; WAY WINSTON I

Assignee(s): VENTURE LENDING AND LEASING V INC ; VENTURE LENDING AND LEASING VI INC ; VENTURE LENDING AND LEASING VII INC ; VENTURE LENDING AND LEASING IV INC ; SNELL HOLDINGS LLC ; TREQ LABS INC

Inventor(s): (std): WAY WINSTON I

Agent(s): KOELLNER MALTE; FISH AND RICHARDSON PC; AI BING

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **SYSTEMS** AND METHODS OF CLASSIFYING AND DECODING WIRELESS SIGNALS

Abstract: Source: US2010172443A **Systems** and methods of classifying and decoding wireless signals are disclosed. A receiver may receive wireless signals from multiple transmitters. The receiver may use sphere decoding to classify the wireless signals (e.g., determine the modulation scheme of the wireless signals) and decode the wireless signals (e.g., determine the symbol and/or symbols transmitted using the wireless signals).

Classifications:

International (IPC 8-9): H04B1/707 H04L25/03

H04L27/06 (Advanced/Invention);

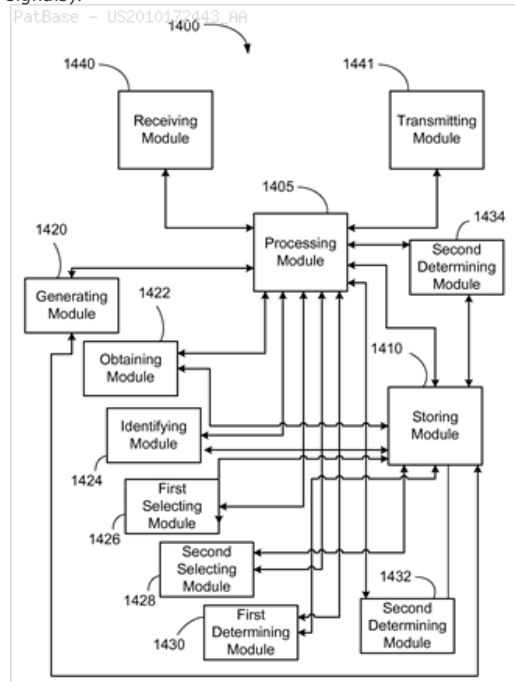
H04B1/707 H04L25/03 (Core/Invention);

H04L25/03 (Core/Non-invention)

CPC: H04B1/7105 H04L25/03242 H04L25/03331

European: H04B1/7105 H04L25/03B7C 11 H04L25/03B7M

US: 375/320 375/320P 375/340 375/340S



Family:

Publication number	Publication date	Application number	Application date
TW201101759 A	20110101	TW20100100301	20100107
US2010172443 AA	20100708	US20100683406	20100106
WO10080920 A1	20100715	WO2010US20383	20100107

Priority:

US20090143073P 20090107 US20100683406 20100106

Probable Assignee: QUALCOMM INC

Assignee(s): (std): KANG INSUNG ; QUALCOMM INC ; SHIM BYONGHYO

Inventor(s): (std): KANG IN SUNG ; KANG INSUNG ; SHIM BYONG HYO ; SHIM BYONGHYO

Agent(s): QUALCOMM INC; JACOBS JEFFREY D

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HIGH-SPEED **MULTI-LEVEL** ELECTRONIC SIGNAL GENERATION FOR **OPTICAL** COMMUNICATIONS

Abstract: Source: US2011052209A A method of processing data is provided that includes receiving a plurality of binary electronic signals and generating an **optical** signal by a number of **lasers** that is equal to or greater than the number of binary electronic signals. The **optical** signal is generated at one of a plurality of intensity levels, and each intensity level represents a particular combination of bit values for the plurality of binary electronic signals. The **optical** signal is converted into an electronic signal having the plurality of intensity levels. An apparatus for processing data is provided that includes a plurality of **lasers** configured to emit light at a plurality of frequencies, and a plurality of modulators configured to receive a plurality of binary electronic signals and to modulate the light emitted by the **lasers**. An apparatus for transmitting data is provided that includes a photo receiver and an electronic signal generator.

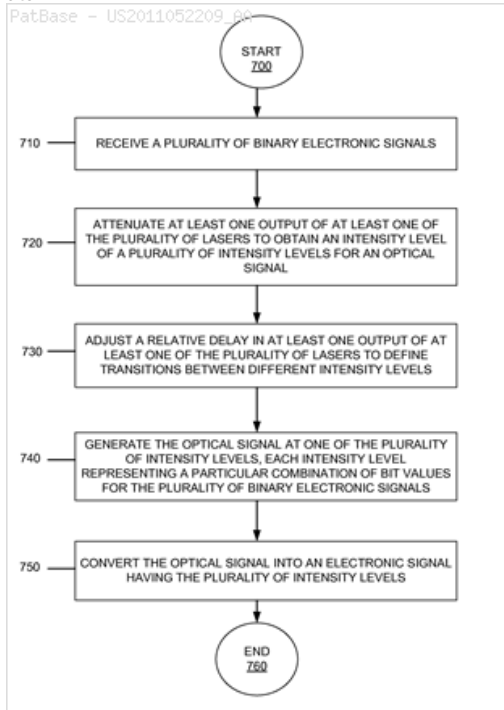
Classifications:

International (IPC 8-9): H04B10/04 (Advanced/Invention)

CPC: H04B10/541

European: H04B10/541

US: 359/237 359/238 359/245 375/286 375/287 375/289 385/2 385/3 385/8 398/183 398/186 398/186P 398/188 398/193 398/194



Family:

Publication number	Publication date	Application number	Application date
US2011052209 AA	20110303	US20100694483	20100127
US8380085 BB	20130219	US20100694483	20100127

Priority:

US20090238411P 20090831 US20100694483 20100127

Probable Assignee: NEC CORP

Assignee(s): (std): GUPTA SHALABH ; HUANG YUE KAI ; NEC LAB AMERICA INC

Assignee(s): NEC LABORATORIES AMERICA INC ; NEC CORP

Inventor(s): (std): GUPTA SHALABH ; HUANG YUE KAI

Agent(s): JOSEPH