

Diego Gonzalez

Search history

- Search 1: wavelength and division and multiplex* and optic and failure and bit and frame (Results 2)
- Search 2: wavelength and division and multiplex* and optic and failure (Results 52)
- Search 3: wavelength and division and multiplex* and optic and failure and switch* (Results 33)
- Search 4: wavelength and division and multiplex* and optic and failure and switch* and monitor* (Results 16)
- Search 5: wavelength and division and multiplex* and optic and failure and switch* and monitor* and path (Results 11)

Title: DISTRIBUTED **SWITCHING** SYSTEM AND METHOD WITH TIME-BASED ROUTING

Abstract: Source: US2001038628A This invention describes a method for transmitting and forwarding packets over a **switching** network using time information. The network **switches** maintain a common time reference, which is obtained either from an external source (such as GPS-Global Positioning System) or is generated and distributed internally. The time intervals are arranged in simple periodicity and complex periodicity (like seconds and minutes of a clock). A data packet that arrives to an input port is **switched** to an output port based on its order or time position in the time interval in which it arrives at the **switch**. The time interval duration can be longer than the time duration required for transmitting a data packet, in which case the exact position of a data packet in its forwarding time interval is predetermined. This invention provides congestion-free data packet **switching** for data packets for which capacity in their corresponding forwarding links and time intervals is reserved in advance. Furthermore, such data packets reach their destination, which can be one or more (i.e., multicast) in predefined time intervals, which guarantees that the delay jitter is smaller than or equal to one time interval.

Classifications:

International (IPC 8-9): H04J14/02 H04J3/00 H04L12/24 H04L12/28 H04L12/40 H04L12/43 H04L12/50 H04L12/54 H04L12/56 H04L12/64 H04L12/66 H04L12/70 H04L12/801 H04L12/815 H04L12/841 H04L12/851 H04L12/853 H04L12/861 H04L12/875 H04L12/931 H04L12/933 H04L12/935 H04L12/937 H04L12/947 H04L29/06 H04L3/06 H04Q11/00 H04Q11/04 (Advanced/Invention); H04J3/06 H04L12/70 H04L12/933 H04Q11/00 H04Q11/04 (Advanced/Non-invention); H04J3/00 H04L12/24 H04L12/28 H04L12/40 H04L12/42 H04L12/56 H04L12/64 H04L29/06 H04Q11/00 H04Q11/04 (Core/Invention); H04J3/06 H04Q11/00 H04Q11/04 (Core/Non-invention)

International (IPC 1-7): G02B6/26 H04J14/00 H04J14/02 H04J14/08 H04J3/02 H04J3/04 H04J3/06 H04J3/12 H04J4/00 H04L12/28 H04L12/50 H04L12/56 H04L12/64 H04L12/66 H04Q11/00 H04Q11/04

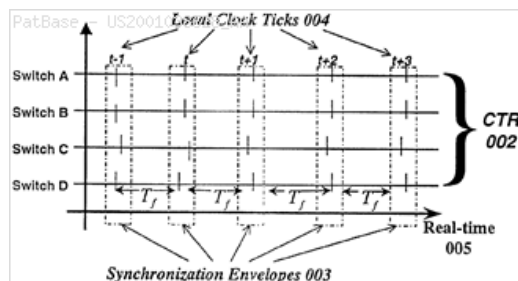
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European: H04J3/06C1C H04J3/06C5P H04L12/40F1 H04L12/56K H04L12/56S2B2 H04L12/64B H04L29/06 H04L47/10 H04L47/22 H04L47/24B H04L47/24D H04L47/24E H04L47/28 H04L47/28A H04L47/56 H04L47/56B H04L49/20C1 H04L49/25 H04L49/25E1 H04L49/30 H04L49/30A H04L49/30G H04L49/30J H04L49/35 H04L49/55 H04L49/90 H04Q11/00P2 H04Q11/00P4 H04Q11/04S2 T04J203/00C18P T04J203/00C18P1 T04J203/00C20 T04J3/06C1B T04J3/06C5 T04J3/06C5P T04L12/56A10E T04L12/56A20 T04L12/56A20C T04L12/56A22B T04L12/56A4B1 T04L12/64B10 T04L12/64B13 T04L12/64B21A T04L29/06M T04L29/06T T04L49/10A T04L49/10C T04L49/15 T04L49/20C T04L49/25E1 T04L49/30 T04L49/30A T04L49/30G T04L49/35 T04L49/45 T04L49/50 T04L49/50C4 T04Q11/00P2B10 T04Q11/00P2B18 T04Q11/00P2B24 T04Q11/00P2D14 T04Q11/00P2D2 T04Q11/00P2D8

US: 359/117 359/124 359/128 359/139 359/14 370/216 370/216P 370/229 370/345 370/345S 370/350 370/369 370/372 370/372P 370/375 370/376 370/386 370/389 370/392 370/392P 370/395 370/395.1 370/395.4 370/400 370/400P 370/401 370/411 370/411S 370/412 370/429 370/436 370/458 370/463 370/463S 370/474 370/474S 370/475 370/475S 370/477 370/477P 370/498 370/503 370/503P 370/503S 370/517 370/522 370/522S 370/535 370/537 370/537S 370/539 370/539P 370/542 370/907 385/15 398/101 398/101S 398/161 398/161S 398/47 398/49 398/49S 398/50 398/50S 398/51 398/53 398/53S 398/55 398/55P 398/69 398/69S 398/75 398/79 398/79S 398/82 398/82P 398/87 398/87P 709/248

Family:

Publication number	Publication date	Application number	Application date
AT356495 E	20070315	AT20000952237T	20000727
AT359647 E	20070515	AT19990927504T	19990611
AT390822 E	20080415	AT20010977176T	20010926
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US6330236 BA	20011211	US19980120529	19980722
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WO0228139 A1	20020404	WO2001US30052	20010926
WO0228139 B1	20020718	WO2001US30052	20010926
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Priority:

US19980088891P	19980611	US19980088893P	19980611	US19980088906P	19980611
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Probable Assignee: SYNCHRODYNE NETWORKS INC

Assignee(s): (std): BALDI MARIO ; OFEK YORAM ; SHACHAM NACHUM ; SYNCHRODYNE INC ; SYNCHRODYNE NETWORKS INC

Inventor(s): (std): BALDI MARIO ; OFEK YORAM ; SHACHAM NACHUM

Inventor(s): YORAM OFEK ; MARIO BALDI

Agent(s): SIM AND MCBURNEY; BORSANO CORRADO ET AL; SITRICK AND SITRICK

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK 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 PH 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: Split redundant trunk architecture using passive splitters and **path switching**

Abstract: Source: US2002167694A A collapsed ring fiber **optic** system includes a service **path** and a protection **path** provides at a shallow water portion of the fiber **optic** system, to deal with any fiber cuts that may occur at the shallow water portion without loss of main trunk bandwidth. The service and protection **paths** meet at a branch point, which is preferably located at a deep water portion of the fiber **optic** system. A passive combiner or a 1x2 **switch** is provided at the branch unit, along with a detector and a processor, to determine whether any signals are being received from the service **path**, and if not, to reconfigure the system to accept signals from the protection **path**. At another shallow water portion of the fiber **optic** system, nearby where a destination is located, the signal provided on the optical **path** over the deep water portion is split into a service **path** and a protection **path**, to provide redundancy to deal with any fiber cuts that may occur. The fiber **optic** system may also be utilized for a land-based system, having high probability of fiber cut regions and low probability of fiber cut regions.

Classifications:

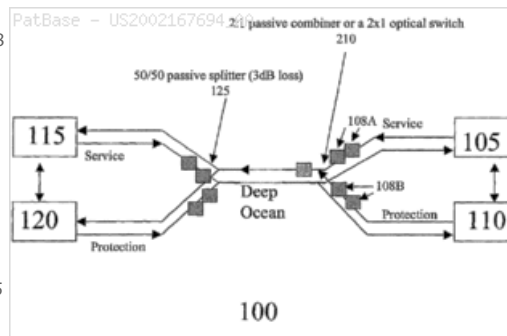
International (IPC 8-9): G02F1/00 H04B10/00 H04B10/02 H04B10/08 H04B10/12 H04B10/16 H04B10/213 H04B13/02 H04J14/00 H04J14/02 H04J14/08 H04Q11/00 (Advanced/Invention); G02F1/00 H04B10/00 H04B10/02 H04B10/08 H04B10/12 H04B10/16 H04B10/213 H04J14/00 H04J14/02 H04J14/08 H04Q11/00 (Core/Invention); G02B (Subclass/Invention)

International (IPC 1-7): G02B6/26 G02B6/28 G02B6/35 G02B6/44 G02F1/00 H04B10/00 H04B10/02 H04B10/08 H04B10/12 H04B10/16 H04J14/00 H04J14/02 H04J14/08

CPC: H04B10/032 H04Q11/0062 H04Q2011/0081 H04Q11/0005 H04Q2011/0024 H04Q2011/0039 H04Q2011/0052 H04Q2011/0083 H04J14/0246 H04J14/0241 H04J14/0283 H04J14/0294 H04B10/07955 H04B10/077 H04J14/02 H04J14/0201 H04J14/0213 H04J14/0227 H04J14/0279 H04J14/029 H04J14/0295 H04J14/0297

European: H04B10/032 H04B10/077 H04B10/07955 H04J14/02A H04J14/02M H04J14/02N1 H04J14/02N4 H04J14/02P4D H04J14/02P6D H04J14/02P6S H04J14/02P8 H04Q11/00P2 H04Q11/00P4 T04J14/02 T04J14/02A1W T04J14/02M T04J14/02N1 T04J14/02N4 T04Q11/00P2B18 T04Q11/00P2D2 T04Q11/00P2F T04Q11/00P4M1 T04Q11/00P4M2

US: 359/110 359/173 359/20 359/20P 385/100 385/100P 385/15 385/16 385/17 385/24 385/24S 396/106 398/1 398/10 398/101 398/104 398/104P 398/105 398/12 398/12P 398/13 398/13P 398/141 398/141S 398/17 398/177 398/178 398/19 398/1S 398/2 398/25 398/3 398/33 398/4 398/45 398/5 398/59 398/5P 398/66 398/68 398/70 398/82 398/9



Family:

Publication number	Publication date	Application number	Application date
AU2002305402 AA	20021118	AU20020305402	20020506
US2002167694 AA	20021114	US20010850141	20010508
US2002197004 AA	20021226	US20010886409	20010622
US2003031433 AA	20030213	US20010962535	20010926
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US2007019953 AA	20070125	US20060534892	20060925
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US7415211 BB	20080819	US20060635180	20061207
US7424224 BB	20080909	US20060534892	20060925
WO02091029 A2	20021114	WO2002US14245	20020506
WO02091029 A3	20030605	WO2002US14245	20020506
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Priority:

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Probable Assignee: LEVEL 3 COMMUNICATIONS LLC

Assignee(s): (std): DORSAL NETWORKS INC ; DORSAL NETWORKS L L C ; DORSAL NETWORKS LLC ; FEINBERG LEE DANIEL ; PEDERSEN BO ; ESMAN RONALD DALE ; HAGOPIAN JOHN ; MAHON CATHAL ; MILLER BRENT ASHLEY ; JOHNSON RONALD E ; HAYEE IMRAN M ; FEINBERG LEE ; EEGHOLM BENTE ; BROADWING CORP ; CORVIS CORP ; RAMANUJAM NANDAKUMAR

Assignee(s): SOWILO NETWORKS ; DOR L NETWORKS INC SA ; HAYEE M IMRAN ; LEVEL ; LEVEL 3 COMMUNICATIONS LLC

Inventor(s): (std): EEGHOLM BENTE ; WOLF LEGAL REPRESENTATIVE DARR ; RAMANUJAM NANDAKUMAR ; PEDERSEN BO ; MILLER BRENT ASHLEY ; MAHON CATHAL ; JOHNSON RONALD E ; HAYEE M IMRAN ; HAGOPIAN JOHN ; FEINBERG LEE DANIEL ; FEINBERG LEE D ; ESMAN RONALD DALE ; HAYEE IMRAN M ; FEINBERG LEE

Inventor(s): WOLF LEGAL REPRESENTATIVE DARREN E ; BO PEDERSEN ; BRENT ASHLEY MILLER ; CATHAL MAHON ; IMRAN M HAYEE ; JOHN HAGOPIAN ; LEE DANIEL FEINBERG ; NANDAKUMAR RAMANUJAM ; RONALD DALE ESMAN ; RONALD E JOHNSON

Agent(s): HARRITY SNYDER LLP; DICKIE MCCAMEY AND CHILCOTE PC INTELLECTUAL PROPERTY DEPARTMENT; THORP REED AND ARMSTRONG LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK 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 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 US UZ VN YU ZA ZM ZW

Title: TUBULAR ELECTRO-LUMINESCENT PANEL(S) LIGHT DEVICE

Abstract: Source: US2003231485A A tubular Electro-Luminescent panel(s) light device offer a desired bending directions with super brightness basing on certain width of panel incorporated proper inverter system. The said panel(s) with much narrow width than tube means to allow the panel(s) can be bend at any direction and angle within the tube means to offer a desired light effects. The said panel(s) can be flat or twisted within the tube means which may have the desired colored, transparency, wall thickness, diameter, shape, length for requirement. The said device may incorporated with non-elastic means, magnetic means, tube holder, sensor means, Integrated circuit to add a lot of desired variety features.

Classifications:

International (IPC 8-9): A41D27/08 A41G1/00 A42B1/24 A43B3/00 A45C15/06 B60Q1/26 B60Q3/02 B60R11/00 B60R13/00 C10G1/00 C12M1/00 C12M1/06 C12M1/12 C12M1/34 C12M3/00 F21K2/00 F21K9/232 F21K99/00 F21L13/00 F21L14/00 F21L4/00 F21L4/02 F21L4/08 F21S10/00 F21S10/02 F21S10/06 F21S2/00 F21S4/00 F21S6/00 F21S8/00 F21S8/08 F21S9/02 F21V1/00 F21V1/10 F21V11/00 F21V13/00 F21V13/02 F21V14/00 F21V14/02 F21V14/06 F21V14/08 F21V15/01 F21V17/00 F21V17/02 F21V19/00 F21V19/02 F21V21/00 F21V21/005 F21V21/08 F21V21/092 F21V21/14



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International (IPC 1-7): F21V21/00 F21V21/08 F21V9/16 G01D11/28 G02B6/04 H01J1/62 H01R11/00

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US: 1/1 29/595 29/825 307/31 313/498 313/511 313/512 315/155 315/160 315/250 315/287 315/314 315/317 315/32 315/86 340/472 345/77 348/142 348/143 348/151 348/159 348/169 348/207.1 348/372 348/373 348/744 348/E5.024 348/E5.026 348/E5.043 348/E5.09 348/E7.085 348/E9.025 349/5 349/62 352/133 353/10 353/101 353/103 353/119 353/122 353/43 353/62 353/7 353/85 353/87 353/95 359/15 359/32 362/101 362/103 362/104 362/108 362/109 362/135 362/145 362/149 362/157 362/158 362/183 362/184 362/190 362/20 362/219 362/221 362/225 362/23 362/23.01 362/23.19 362/231 362/233 362/234 362/235 362/238 362/241 362/249 362/249.01 362/249.02 362/249.03 362/249.06 362/249.07 362/249.09 362/249.11 362/249.12 362/250 362/251 362/253 362/257 362/259 362/267 362/269 362/276 362/277 362/280 362/281 362/285 362/294 362/295 362/296.01 362/298 362/3 362/311 362/311.01 362/311.02 362/311.03 362/311.13 362/338 362/34 362/35 362/362 362/369 362/372 362/375 362/382 362/390 362/394 362/397 362/404 362/421 362/427 362/457 362/487 362/555 362/562 362/563 362/565 362/603 362/640 362/641 362/642 362/643 362/644 362/645 362/646 362/647 362/648 362/659 362/8 362/800 362/806 362/84 362/85 362/86 362/87 362/88 362/92 362/95 362/96 362/97.1 363/178 368/10 368/223 368/227 368/242 368/278 368/67 368/80 368/82 368/84 396/155 439/11 439/131 439/165 439/31 439/490 439/502 439/536 439/6 439/638 439/8 713/300

Family:

Publication number	Publication date	Application number	Application date
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Probable Assignee: TORMACH LLC

Assignee(s): (std): CHIEN TAENG LU ; CHIEN TSENG L ; CHIEN TSENG LU ; TORMACH LLC ; WALLAGE RAYMOND ROGER

Inventor(s): (std): WALLAGE RAYMOND ROGER ; CHIEN TSENG LU ; CHIEN TSENG L ; CHIEN TAENG LU

Inventor(s): CHIEN TSENG

Agent(s): BACON AND THOMAS PLLC; ROBERT

Title: VARIABLE OPTICAL SOURCE

Abstract: Source: US2002176149A A variable optical source 801 to selectively provide a desired optical output signal in response to a control signal is provided. The optical source includes an optical filter that attenuates a broadband optical input signal or a multi-spectral input signal 802. The optical filter is controllable or programmable to selectively provide a desired filter function. The optical filter 10 includes a spatial light modulator 36, which may comprise an array of micromirrors 52 that effectively forms a two-dimensional diffraction grating mounted in a retro-reflecting configuration. The input optical signal is dispersed onto the array of micro-mirrors 52 along a spectral axis or direction 55 such that input light is spread over a plurality of micromirrors to effectively pixelate the light. The broadband light or signals of the multi-spectral input light is selectively attenuated by flipping or tilting a selected number of micromirrors to thereby deflect a portion of the incident radiation away from the return optical path. The micro-mirrors operate in a digital manner by flipping between a first and second position in response to a control signal 56 provided by a controller 58 in accordance with an attenuation algorithm and an input command 60.

Classifications:

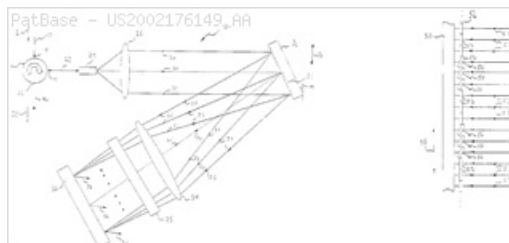
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International (IPC 1-7): G02B26/00 G02B26/08 G02B27/10 G02B6/26 G02B6/34 G02B6/42 G02F1/29 G02F1/33 H04B10/08 H04B10/12 H04J14/00 H04J14/02 H04Q11/00

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Family:

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Probable Assignee: FINISAR CORP

Assignee(s): (std): CIDRA CORP ; CIDRA CORP DOING BUSINESS ; SIRKIS JAMES ; SZCZEPANEK PAUL

Assignee(s): KERSEY ALAN D ; MOON JOHN ; PINTO JOSEPH ; FINISAR CORP ; SIRKIS JAMES S ; WEBSTER BANK NATIONAL ASSOCIATION ; CIDRA CORPORATE SERVICES INC ; CIDRA CORPORATION ; CIDRA DOING BUSINESS CORP ; DAVIS MICHAEL ; DUNPHY JAMES

Inventor(s): (std): DAVIS MICHAEL ; DAVIS MICHAEL A ; DAWSON JAY W ; DUNPHY JAMES ; DUNPHY JAMES R ; KERSEY ALAN D ; MOON JOHN ; MOON JOHN A ; O KEEFE CHRISTIAN ; PINTO JOSEPH ; PINTO JOSEPH F ; PUTNAM MARTIN A ; SIRKIS JAMES ; SIRKIS JAMES S ; SZCZEPANEK PAUL ; SZCZPPANEK PAUL

Inventor(s): PAUL SZCZEPANEK ; MICHAEL A DAVIS ; ALAN D KERSEY ; CHRISTIAN O KEEFE ; JAMES R DUNPHY ; JAMES SIRKIS ; JAY W DAWSON ; JOHN A MOON ; JOSEPH F PINTO

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; GOWLING LAFLEUR HENDERSON LLP; WARE FRESSOLA VAN D SLUYS AND ADOLPHSON LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK 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 SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Title: OPTICAL FREQUENCY **DIVISION MULTIPLEXING** NETWORK

Abstract: Source: US2005175351A An optical frequency **division multiplexing** network includes first optical communication **paths** connected to terminals, respectively, a second optical communication **path** connected to the outside and a node composed of a selection unit for selecting signals having optical frequencies to be sent to the plurality of terminals, respectively, from signals transmitted through the second optical communication **path** in optical frequency **division multiplexing**, a conversion unit for converting the selected signals into signals having a single optical frequency and an output unit for producing the converted signals to the terminals through the first optical communication **paths**, respectively.

Classifications:

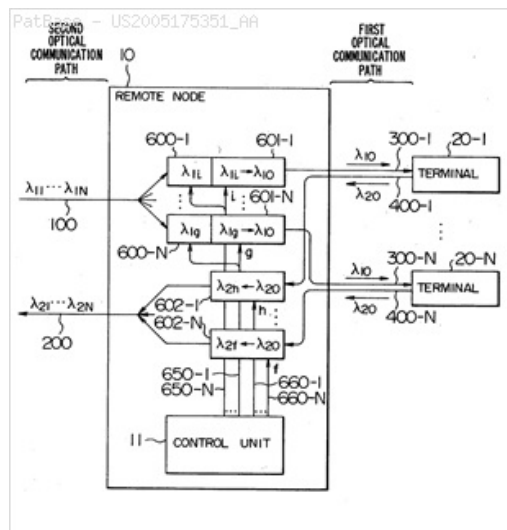
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International (IPC 1-7): H04B10/00 H04B10/20 H04B10/207 H04J14/00 H04J14/02 H04N7/22 H04Q11/00 H04Q3/52 H04Q3/60

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European: H04J14/02 H04Q11/00P4 T04J14/02A T04J14/02A1B T04J14/02A1C T04J14/02A1E T04J14/02A1M T04J14/02A1R2 T04J14/02A1W T04Q11/00P2B2 T04Q11/00P2B4 T04Q11/00P2B6 T04Q11/00P2B8 T04Q11/00P2D2 T04Q11/00P4R

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Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: HITACHI LTD

Assignee(s): (std): HITACHI LTD

Inventor(s): (std): TAKASE MASAHICO ; TAKEYARI RIYOUJI ; TAKEYARI RYOJI ; TAKEYARI RYOJI HITACHI DAIYON ; TAKAI ATSUSHI ; TAKASE AKIHIKO

Inventor(s): TAKASE AKIHIKO TOKYO JP ; TAKAI ATSUSHI KOKUBUNJI SHI JP ; TAKEYARI RYOJI HITACHI DAIYON KYOSHINRYO ; TAKEYARI RYOJI HITACHI DAIYON KYOSHINRYO KOKUBUNJI ; TAKEYARI RYOJI HITACHI DAIYON KYOSHINRYO KOKUBUNJI SHI JP

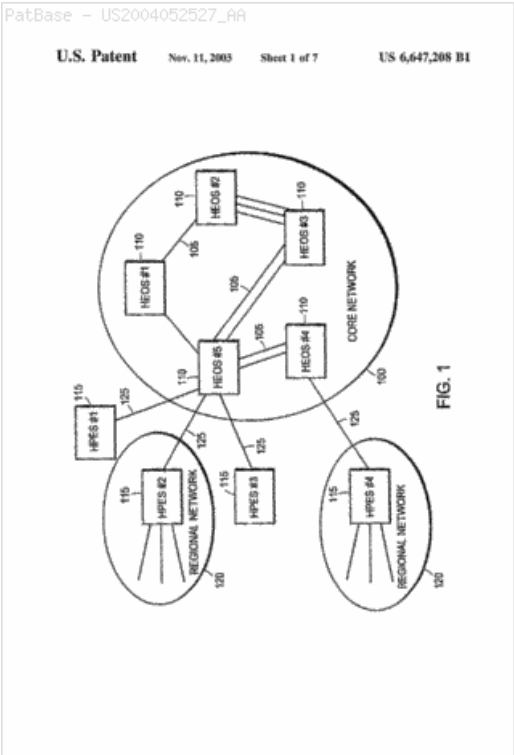
Agent(s): ANTONELLI TERRY STOUT AND KRAUS LLP

Designated states: DE FR GB SE

Title: HYBRID ELECTRONIC/OPTICAL SWITCH SYSTEM

Abstract: Source: US2004052527A A high speed optical communication and data transfer network comprises fiber optic links interconnecting a plurality of hybrid electronic-optical switch devices, each hybrid switch circuit including an electronic switch, electronic switch controller and optical switch. The hybrid switch circuits and nodes on the periphery of the core network communicate amongst each other over a first dedicated wavelength. Optical signals on the first dedicated wavelength are converted to electronic signals which are monitored by the electronic controller in each hybrid switch circuit. Routing in the network is optimized by transmitting lower volume data traffic on the first dedicated wavelength which is typically slower due to optical/electronic signal conversions and which uses more resources. Higher capacity data transfers are achieved by transmitting data on an assigned carrier wavelength over an established flow path among the optical switches of multiple hybrid switch circuits. Based on high and low volume data traffic, the method and apparatus discussed herein advantageously supports direct and indirect optical data transmissions with as few overall intermediate optical-to-electrical or electrical-to-optical conversions as possible.

Classifications:
International (IPC 8-9): H04Q11/00 (Advanced/Invention); H04Q11/00 (Core/Invention)
International (IPC 1-7): H04J14/00 H04J14/08
CPC: H04Q11/0005 H04Q11/0066 H04Q11/0071 H04Q2011/0016 H04Q2011/002 H04Q2011/0024 H04Q2011/0039 H04Q2011/0049 H04Q2011/0052 H04Q2011/0069 H04Q2011/0077 H04Q2011/0086
European: H04Q11/00P2 H04Q11/00P4B T04Q11/00P2B10 T04Q11/00P2B14 T04Q11/00P2B18 T04Q11/00P2D12 T04Q11/00P2D2 T04Q11/00P2F T04Q11/00P4D T04Q11/00P4E T04Q11/00P4L T04Q11/00P4R
US: 398/115 398/45 398/46 398/57 398/58 398/74 398/79



Family:

Publication number	Publication date	Application number	Application date
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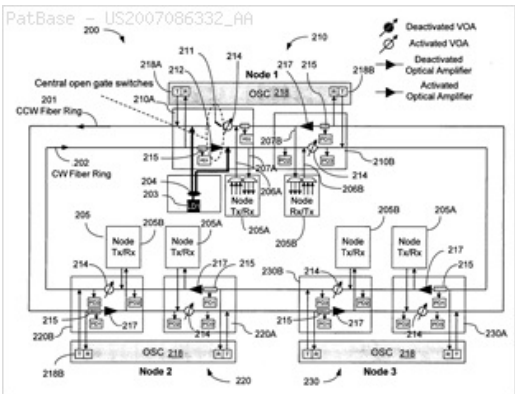
Probable Assignee: MASSACHUSETTS INST TECHNOLOGY
Assignee(s): (std): MASSACHUSETTS INST TECHNOLOGY
Assignee(s): MASSACHUSETTS INSTITUTE OF TECHNOLOGY ; OF TECHNOLOGY MASSACHUSETTS INST ; AIR FORCE UNITED STATES ; AIR FORCE UNITED STATES ESC JAZ ; MASSACHUSETTS INST OF TECHNOLOGY
Inventor(s): (std): KIRBY ALAN J

Title: OPTICAL RING NETWORKS USING CIRCULATING OPTICAL PROBE IN PROTECTION **SWITCHING** WITH AUTOMATIC REVERSION

Abstract: Source: US2007086332A Techniques and apparatus for optical communication networks including fiber ring networks with protection **switching** to maintain optical communications when an optical **failure** occurs and to automatically revert to normal operation when the optical **failure** is corrected. Implementations include use of a circulating optical probe signal at an optical probe **wavelength** within the gain spectral range of optical amplifiers used in a fiber ring network to detect an optical **failure**.

Classifications:

International (IPC 8-9): G06F11/00 H04J14/02
H04J3/14 (Advanced/Invention);
G01F11/00 (Advanced/Non-invention);
G01R31/08 H04J3/14 (Core/Invention)
CPC: H04J14/0232 H04J14/0235 H04J14/0221 H04J3/14 H04J14/0227
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European: H04J14/02B H04J14/02M H04J14/02N4 H04J14/02P6S
H04J3/14
US: 370/217 370/221 370/222 370/223 370/223P 370/225 370/242
370/248



Family:

Publication number	Publication date	Application number	Application date
EP1949119 A2	20080730	EP20060836322	20061013
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US2007086332 AA	20070419	US20060580537	20061013
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Priority:

US20050726991P 20051013 US20060580537 20061013 WO2006US40277 20061013

Probable Assignee: TREQ LABS INC

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

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

Inventor(s): (std): LAM CEDRIC ; WAY WINSTON I

Inventor(s): WAY WINSTON

Agent(s): LLOYD PATRICK ALEXANDER DESMOND; FISH AND RICHARDSON PC; IPXLAW GROUP LLP; MICHAEL K

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR 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 MG MK ML MN MR 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: BI-DIRECTIONAL RING NETWORK HAVING MINIMUM SPARE BANDWIDTH ALLOCATION AND CORRESPONDING CONNECTION ADMISSION CONTROLS

Abstract: Source: US2004085899A The present invention provides for a method for reserving spare bandwidth for a link in a communication network including a plurality of links. The method provides for **monitoring** the volume of traffic routed through each link of the communication network. A single link **failure** for each link is then simulated and one volume of traffic which would be rerouted through each link for maintaining communication and the volume of traffic removed from each link are determined for each simulated single link **failure**. The difference between the volume of traffic which would need to be rerouted through each link and the corresponding volume of traffic removed from each link is then computed, and a maximum difference value is determined for each link for all simulated single link **failures**. An amount of spare bandwidth equivalent to the determined maximum difference is then reserved for each link.

Classifications:

International (IPC 8-9): G01R31/08 G06F11/00 H04B10/00
H04B10/275 H04J3/08 H04J3/14 H04J3/16 H04L12/24 H04L12/26
H04L12/28 H04L12/437 H04L12/54 H04L12/56 H04L12/703
H04L12/801 H04L12/911 H04L12/913 (Advanced/Invention);
H04J1/16 (Advanced/Non-invention)

International (IPC 1-7): G01R31/08 H04J3/14 H04J3/16 H04L12/26

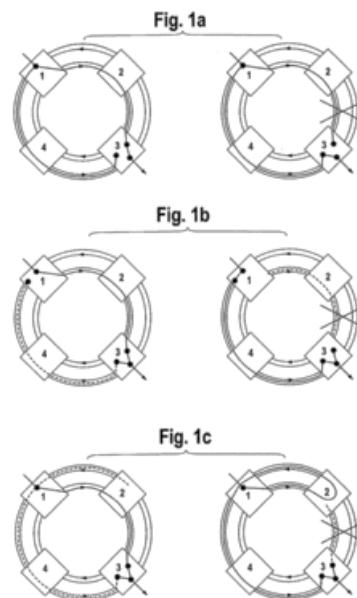
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European: H04J3/08A H04J3/14 H04L12/24F1 H04L12/26M3D2
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H04L47/11 H04L47/15 H04L47/72B H04L47/72C1 H04L47/74D
H04L47/78A H04L47/78C H04L47/82B H04L47/82C H04L47/82J
T04J3/08A T04J3/14

US: 370/216 370/222 370/223 370/225 370/225P 370/228 370/228P
370/230 370/230P 370/235 370/235S 370/252 370/254 370/258
370/468 398/3 398/3P 398/4 714/2

PatBase - US2004085899_AA

U.S. Patent Aug. 12, 2003 Sheet 1 of 7 US 6,606,297 B1

**Family:**

Publication number	Publication date	Application number	Application date
US2004085899 AA	20040506	US20030601429	20030623
US2008151747 AA	20080626	US20080042082	20080304
US2008159735 AA	20080703	US20080039397	20080228
US2012008493 AA	20120112	US20110235017	20110916
US2014126898 AA	20140508	US20130101763	20131210
US6606297 BA	20030812	US19990322337	19990528
US7359323 BB	20080415	US20030601429	20030623
US7796644 BB	20100914	US20080042082	20080304
US8036114 BB	20111011	US20080039397	20080228
US8630172 BB	20140114	US20110235017	20110916
US9531584 BB	20161227	US20130101763	20131210

Priority:

US19980087264P 19980529	US19990322337 19990528	US20030601429 20030623
US20080042082 20080304	US20080039397 20080228	US20110235017 20110916
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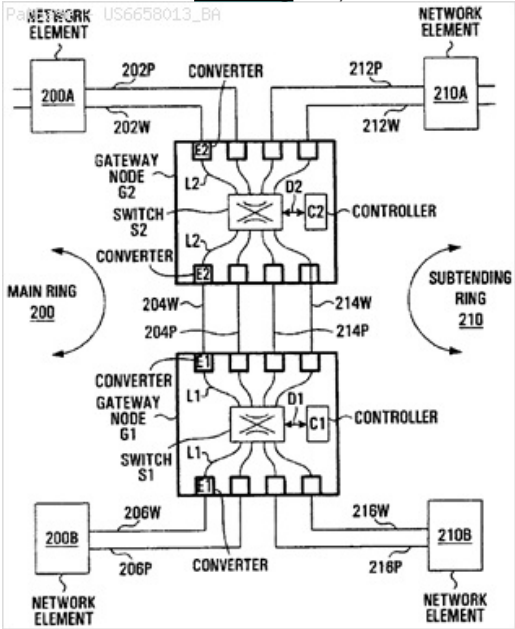
Probable Assignee: TELLABS OPERATIONS INC**Assignee(s):** (std): LIN PHILIP J ; MAGILL ROBERT B ; TELLABS OPERATIONS INC**Assignee(s):** CERBERUS BUSINESS FINANCE LLC COLLATERAL AGENT AS ; TELECOM HOLDING PARENT LLC**Inventor(s):** (std): LIN PHILIP J ; MAGILL ROBERT B**Agent(s):** WELSH AND KATZ LTD; HUSCH BLACKWELL SANDERS WELSH AND KATZ; HUSCH BLACKWELL LLP

Title: Method and apparatus for ensuring survivability of inter-ring traffic

Abstract: Source: US6658013B A method and corresponding network element configuration for delivering communications services between first and second survivable rings, each comprising a respective plurality of network elements, at least two of which are common to both rings. For each particular service, one of the common network elements is designated as a primary gateway node and another as a secondary gateway node. A primary inter-ring connection is established for the particular service by a switch at the primary gateway node, but no inter-ring connection is established at the secondary gateway node. The secondary gateway node comprises a controller for monitoring the status of the primary gateway node and establishing a new inter-ring connection for delivery of said service upon detecting a failure of the primary gateway node. This provides survivable inter-ring traffic which is bandwidth-efficient and with a low switching delay.

Classifications:

International (IPC 8-9): H04J1/16 H04J3/08 H04L12/437 H04Q1/20 H04W24/04 (Advanced/Invention); H04Q11/04 H04W88/16 (Advanced/Non-invention)
International (IPC 1-7): H04J1/16 H04Q1/20
CPC: H04J3/085 H04J2203/0042 H04J2203/006 H04L12/437 H04W24/04 H04W88/16
European: T04J203/00C12C T04J203/00C4C2 T04W88/16
US: 370/222 370/224 370/404 370/468



Family:

Publication number	Publication date	Application number	Application date
CA2297304 AA	20000923	CA20002297304	20000118
US6658013 BA	20031202	US19990273772	19990323
US7042835 BA	20060509	US20030706920	20031114

Priority:

CA20002297304 20000118 US19990273772 19990323 US20030706920 20031114

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Inventor(s): (std): CAPORUSCIO ROBERT ; DE BOER EVERT ; PARE LOUIS RENE ; PHELPS PETER ; STEELE DAVID

Agent(s): BORDEN LADNER GERVAIS LLP; JEFFREY M

Title: **WAVELENGTH DIVISION MULTIPLEXED** (WDM) RING PASSIVE OPTICAL NETWORK (PON) WITH ROUTE PROTECTION FOR REPLACEMENT OF SPLITTER BASED PASSIVE OPTICAL NETWORKS

Abstract: Source: US2002186439A A method and apparatus for low cost upgrading on demand of an optical fiber communication system without installing additional optical fiber and minimal installation of optical circuitry at destination and distribution terminals. The upgraded systems comprise an optical data loop of a plurality of destination terminals and a single intermediate terminal.

Classifications:

International (IPC 8-9): H04B10/20 H04J14/00

H04L12/66 (Advanced/Invention)

International (IPC 1-7): H04B10/12 H04B10/17 H04B10/20

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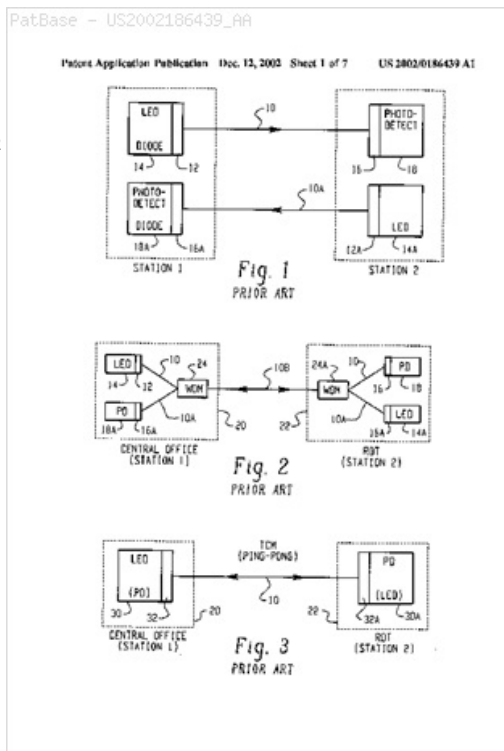
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European: H04B10/27 H04B10/272 H04J14/02 H04J14/02M

H04J14/02N3 H04J14/02P4S

US: 359/118 359/173 370/436 370/436P 370/463 370/468 370/468S

370/535 398/141 398/141P 398/58 398/58S 398/59 398/66 398/66P



Family:

Publication number	Publication date	Application number	Application date
EP1265383 A2	20021211	EP20020253954	20020606
EP1265383 A3	20050720	EP20020253954	20020606
US2002186439 AA	20021212	US20010876439	20010606
US2005163147 AA	20050728	US20050088070	20050323
US2007201873 AA	20070830	US20070741813	20070430
US6898206 BB	20050524	US20010876439	20010606
US7212541 BB	20070501	US20050088070	20050323

Priority:

US20010876439 20010606 US20050088070 20050323 US20070741813 20070430

Probable Assignee: TELLABS BEDFORD INC

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Inventor(s): BUABBUD GEORGE ; WAWRO DEBRA

Agent(s): PAUL E FRANZ ESQ JONES DAY; BAKER BOTTS LLP; JONES DAY

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

Title: BROADBAND OPTICAL NETWORK APPARATUS AND METHOD

Abstract: Source: US2007274717A Methods and apparatus for providing enhanced optical networking service and performance which are particularly advantageous in terms of low cost and use of existing infrastructure, access control techniques, and components. In the exemplary embodiment, current widespread deployment and associated low cost of Ethernet-based systems are leveraged through use of an Ethernet CSMA/CD MAC in the optical domain on a passive optical network (PON) system. Additionally, local networking services are optionally provided to the network units on the PON since each local receiver can receive signals from all other users. An improved symmetric coupler arrangement provides the foregoing functionality at low cost. The improved system architecture also allows for fiber **failure** protection which is readily implemented at low cost and with minimal modification.

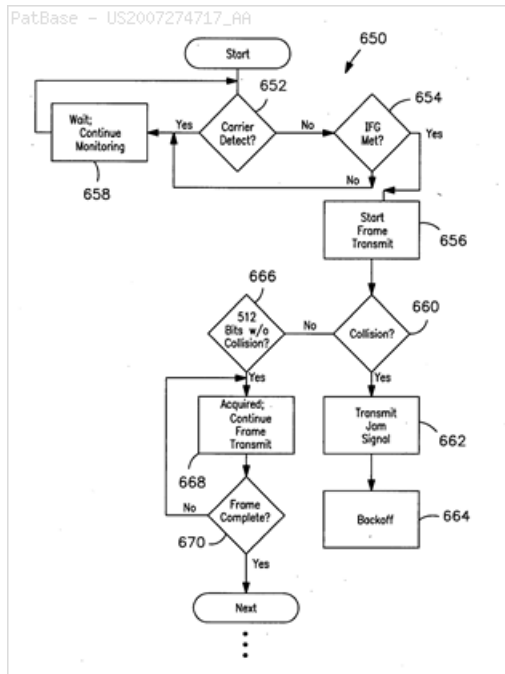
Classifications:

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H04J14/00 H04J14/08 H04J3/14 H04J3/16 (Advanced/Invention);
H04Q11/00 (Advanced/Non-invention);
H04J14/00 (Core/Invention)

CPC: H04J3/14 H04J3/1694 H04Q11/0066 H04Q11/0067
H04Q2011/0015 H04Q2011/0064 H04B10/27 H04J14/086

European: H04J3/14 H04J3/16D H04Q11/00P4C T04Q11/00P2B8
T04Q11/00P4A T04Q11/00P4B

US: 398/100 398/45 398/58 398/63 398/66 398/67 398/99

**Family:**

Publication number	Publication date	Application number	Application date
US2007274717 AA	20071129	US20070707812	20070215
US2009290872 AA	20091126	US20090456984	20090624
US2009290875 AA	20091126	US20090456990	20090624
US2015043913 AA	20150212	US20140457914	20140812
US7181142 BA	20070220	US20020120960	20020409
US8712241 BB	20140429	US20090456990	20090624
US8842989 BB	20140923	US20090456984	20090624
US8861958 BB	20141014	US20070707812	20070215

Priority:

US20020120960 20020409 US20070707812 20070215 US20090456984 20090624
US20090456990 20090624 US20140457914 20140812

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Assignee(s): TIME WARNER CABLE ENTERPRISES LLC ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS

Inventor(s): (std): QIAN NANJIAN ; XU JUN

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