United States of America

United States Patent and Trademark Office

FLEXOPTIX

Reg. No. 6,458,118

Registered Aug. 24, 2021

Corrected Jan. 16, 2024

Int. Cl.: 9, 35, 37

Service Mark

Trademark

Principal Register

Flexoptix GmbH (GERMANY LIMITED LIABILITY COMPANY)
Mühltalstr. 153
64297 Darmstadt
FED REP GERMANY

CLASS 9: Apparatus for recording, transmission or reproduction of sound or images; blank magnetic data carriers; blank recording discs; blank digital recording media, namely, compact discs and DVDs; calculating machines, data processing equipment, computers; computer software; recorded content, namely, audio and video tutorials; downloadable computer software for operating online databases in the field of monitoring, controlling, steering, configurating, managing, measuring and programming and modifying active and passive network components for telecommunication purposes; downloadable media, namely, audio and video recordings featuring tutorials; downloadable computer software for monitoring, controlling, steering, configurating, managing, measuring and programming and modifying active and passive network components for telecommunication purposes; downloadable computer gaming software; downloadable firmware for operating network apparatus and parts and accessory of network apparatus; downloadable software for operating computer operating systems; information technology devices, namely, network data processing apparatus and parts and accessory of network apparatus; communications equipment, namely, network data processing apparatus; computer networking and data communications equipment, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical crossconnects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; point-to-point communications equipment, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical crossconnects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; broadcasting equipment, namely, apparatus for broadcasting of sound or images and audio-visual multimedia; antennas and aerials as communications apparatus; image scanners; electrical and mechanical data processing equipment and accessories, namely, data processors; calculators; computer peripheral

Katherine Kelly Vidal

Director of the United States
Patent and Trademark Office

devices; computer hardware; computer components and parts, namely, computer peripheral devices; audiovisual and photographic devices, namely, cameras; audio devices, namely, radios, and radio receivers, namely, RF radio receivers; display devices in the nature of video monitors, television receivers, and film and video devices in the nature of cameras and webcams; image capturing and developing devices, namely, cameras and webcams; optical, coaxial, twinaxial, waveguide and twisted pair signaling cables for IT, AV and telecommunication; magnets, magnetizers and demagnetizers; scientific and laboratory devices for treatment using electricity, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; electrical and electronic components, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection or and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; electric cables and wires; electrical circuits and circuit boards; optical devices, enhancers and correctors, namely, electrical signal attenuators, optical lenses, prisms, amplifiers, dispersion compensators, dotted fiber in the nature of optical fibers, dotted glass optical fibers, optical pumps in the nature of optical fibers, optical switches, optical cross-connects in the nature of electrical connectors, multiplexers, in particular CWDM and DWDM multiplexer, and optical switches, optical cross-connects in the nature of optical fiber connectors and reconfigurable optical add-drop multiplexer (ROADMs); optical enhancers, namely, attenuators, optical lenses, prisms, amplifiers, dispersion compensators, dotted fiber in the nature of optical fibers, dotted glass optical fibers, optical pumps in the nature of optical fibers, optical switches, optical cross-connects in the nature of electrical connectors, multiplexers, in particular CWDM and DWDM multiplexer, and optical switches, optical cross-connects in the nature of optical fiber connectors and reconfigurable optical add-drop multiplexer (ROADMs); lasers not for medical use; safety, security, protection and signaling devices, namely, router and switches and optical transport equipment in the nature of signal processors for forwarding alarm messages to an alarm center; alarms and warning equipment, namely, router and switches and optical transport equipment in the nature of signal processors for forwarding alarm messages to an alarm center; signaling apparatus, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection or and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; protective and safety equipment, namely, router and switches and optical transport equipment in the nature of signal processors for forwarding alarm messages to an alarm center; navigation, guidance, tracking, targeting and map making devices, namely, GPS receivers and computers; measuring, detecting and monitoring instruments, indicators

and controllers, namely, optical measuring systems, devices and instruments for monitoring of data and signals, namely, data and signal processors; monitoring instruments, namely, optical measuring systems, devices and instruments for monitoring of data and signals, namely, data and signal processors; Optical sensors; testing and quality control devices, namely, optical sensors for testing network apparatus and communication equipment; measuring, counting, alignment and calibrating instruments, namely, optical sensors for network apparatus and communication equipment; controllers, namely, electrical and optical regulators for network apparatus and communication equipment; scientific research and laboratory apparatus, educational apparatus and simulators, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; testing apparatus not for medical purposes, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; armatures for use in electrical apparatus; electric junction boxes; connections for electric lines; audiovisual teaching apparatus, namely, webcams and computer whiteboards; electricity limiters; observation instruments, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; video telephones; chips being integrated circuits; magnetic encoders; data processing apparatus; digital signs; electrical adapters; cable channels in the nature of ducting for electric and network cables; contacts, electric, couplings, electric; apparatus for regulating electric current; conductors, electric; electrical ducts; electronic devices for measuring electric current; relays, electric; electric apparatus for commutation; monitoring apparatus, other than for medical purposes, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; resistances, electric; electric wires; cables, electric; masts for wireless aerials; printed circuit boards; printed circuits; computer operating programs, recorded; computer programs, recorded, for monitoring, controlling, steering,

configurating, managing, measuring and programming and modifying active and passive network components for telecommunication purposes; computer software, recorded, for monitoring, controlling, steering, configurating, managing, measuring and programming and modifying active and passive network components for telecommunication purposes; semi-conductors; holders for electric coils; computer programs, downloadable, for monitoring, controlling, steering, configurating, managing, measuring and programming and modifying active and passive network components for telecommunication purposes; electronic publications, downloadable, namely, tutorials, datasheets, specification sheets, instructions, manuals, hand-outs, videos, presentation slides, books, magazines in the field of telecommunication; computer software applications, downloadable, for monitoring, controlling, steering, configurating, managing, measuring and programming and modifying active and passive network components for telecommunication purposes; high frequency apparatus, namely, switches, router and optical transport equipment in the nature of signal processors; integrated circuits; interfaces for computers; copper wire, insulated; identification threads for electric wires; identification sheaths for electric wires; electric wire connectors; sheaths for electric cables; electric switchboxes; electrical terminal boxes; coaxial cables; lasers, not for medical purposes; light-emitting diodes (LEDs); magnetic data media, namely, magnetic tape drives and blank hard drives for computers; magnetic tape drives for computers; blank magnetic computer tapes; materials for electricity mains, namely, electric wires and cables; measuring instruments in the nature of optical sensors for data communication and telecommunication needs; microprocessors; modems; Computer hardware, namely, optical apparatus and instruments, namely, apparatus and instruments for transportation, amplification, shaping and timing of optical signal optical data media; fibre optic cables; optical fibers being light conducting filaments; optical condensers; optical lanterns; blank recordable optical discs; mirrors being optical mirrors for telecommunication purposes; apparatus and instruments for physics, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals and vibration, acceleration, high frequency, electric and positioning meters and oscilloscope; electric control panels; commutators; switches, electric; electricity distribution consoles; telecommunication transmitting sets, namely, apparatus for transmitting sound or images and data; transmitters of electronic signals; telecommunications transmitters; plugs, sockets and other contacts, being electric connectors; covers for electric outlets; electric circuit closers; circuit breakers; telephone wires; telephone transmitters; telegraph wires; telegraphs; telephone receivers; audio- and video-receivers; sound transmitting apparatus; transponders; junction sleeves for electric cables; electric connectors; electric distribution boxes; panels for the distribution of electricity; apparatus for recording, transmitting and reproduction of data; devices, instruments and passive and active components for fiber optic technology, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; wavelength division multiplexer and demultiplexer; fiber amplifier; optical receiving diodes; optical frequency metrology devices; laboratory

optical apparatus, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; computer hardware, measuring, detecting and monitoring instruments, indicators and controller, for data communication and telecommunication needs; electricity indicators, namely, electricity meters; digital telecommunication indicators, namely, computer hardware; electro-optic transducers; electronic telecommunication control instruments, namely, electrical controlling devices; high frequency electrical transducers; wireless controllers for remote monitoring as well as function and status control of their electrical, electronic or mechanical devices or systems; optical sensors, namely, inspection apparatus and instruments for data communication and telecommunication needs; laser diodes; wireless electric and network switches; electrical frequency converters; electric power controllers; electric switchgears; apparatus and devices for the transmission of images; digital telecommunications equipment, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; wired communication devices, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; wireless communication devices, namely, switches, routers, satellite modems and high-frequency transceivers; wireless transmitters and receivers; electric apparatus for transmission communication; fiber optic telecommunication apparatus and devices, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; communication apparatus and devices for the wireless transmission of data, images or sound; network communication apparatus, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters,

digital signal processors (DSP) and application specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; telecommunications multiplexers; digital optical transmission apparatus, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; Electronic and optical communications instruments and components, namely, optical data links; optical communication devices and apparatus, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; fiber optic couplers; optical switches for data communication and telecommunication needs; optical transceivers; optical and magnetooptical recording media, namely, blank optical and magneto-optical data carrier; information technology and audiovisual equipment and components for the provision, distribution and safeguarding of time, phase, frequency and clock information, in particular for the synchronization of communication and electricity networks, namely, equipment and components for synchronous optical networking and synchronous digital hierarchy and plesiochronous digital hierarchy; computer hardware for telecommunications; wireless communication apparatus for the transmission of data; demultiplexers; metallic electric cables; radio wave transmitters; data communications apparatus, namely, apparatus for the transmission of data; data transmission cables; optical waveguides for telecommunication networks; multiplexers; optical transmitters for transmission of electronic and network signals; optical receivers; signal amplification apparatus and devices, namely, amplifiers, optical amplifiers and laser pumps; network interface transceiver; fiber optic transceiver for use in networks; Telecommunications equipment, namely, fiber optic repeaters, converters and optimizers; wavelength division multiplexer and demultiplexer; free-space optics transmission systems in the nature of telecommunications equipment, in particular transmitters, receivers, parts and accessories, all being components of free-space optics transmission systems * ; optical directional radio systems comprised of fiber optics *, in particular transmitters, receivers, parts and accessories, all being components of optical directional radio systems * ; switches, namely, ethernet switches and routers; fiber-to-the-home and ethernet-over-vdsl access aggregators, terminators and repeaters; Telecommunications equipment, namely, products for presence management, in particular remote presence management, namely, switches, and console, alarm, sensor and power management devices; Consoles, namely, terminal devices for entering and displaying data, namely, computer terminals; alarm devices in the nature of sensors; Telecommunications equipment, namely, sensor and power management devices; apparatus and devices for treating and compensating optical dispersion, namely, dispersion compensators in the nature of optical fibers; optical multiplexers; optical enhancers in the nature of optical fibers; optical translator, in particular electrooptical converters being optical converters; linecards, namely, electronic and network circuits; optical transponders; multiplex transponder being muxponders; ethernet service modules for ethernet switching and

networking, namely, ethernet switches; dispersion compensation modules, namely, dispersion compensation modules for telecommunication networks in the nature of integrated circuits * for pulse compression * ; coarse wavelength division multiplexing-transmitter, namely, multiplexers; dense wavelength division multiplexing-transmitter, namely, multiplexers; optical network systems, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; optical network management and administration equipment * especially network communication devices *, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical crossconnects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; optical transmission system, namely, apparatus for the transmission of data *, in particular transmitters and receivers of optical signals, and parts and accessories therefor, all being components of optical transmission systems * ; digital-to-analog converter; analogue to digital converters; transceivers; multiplexer amplifier; telecommunication apparatus, instruments, installations and networks and their parts and accessories, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; computer systems in the nature of computers and their parts and accessories in the nature of computer peripherals; computer networking hardware; local area network hardware; telecommunication installation cable; telecommunication jumper cables; electrical plugs for telecommunication cables; direct connection telecommunication cable; telecommunication electrical adapters and small signal splitters for electronic apparatus; pigtails being patch cable for telecommunication means; cable guides being ducting for telecommunication cables; passive and active telecommunication network components, namely, passive and active telecommunication network electronic components, namely, switches, routers, optical transport equipment, wave shapers, amplifiers, optical pumps, oscillators, dispersion compensators, optical channel monitor, optical switch, optical cross-connects, ROADMs, wavelength selective switches (WSS), multi cast switches (MCS), optical power meters (OPM), optical spectrum analyzers (OSA), splitters, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), in particular for modulation methods PAM4, QPSK, PM-QPSK, QUAM, coherent detection and forward error correction and multiplexers, in particular CWDM and DWDM multiplexers and devices and apparatus for monitoring data and signals; transceivers for data communication and telecommunication needs; transmitters for data communication and telecommunication needs; receivers of electronic signals for data communication and telecommunication

needs; devices and components for the application of modulation methods, namely, digital signal processors (DSP) and application-specific integrated circuits (ASIC); data processing devices and electronic components for performing coherent detection, namely, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), photo-detectors, optical mixers and combiners, optical filters, local (optical) oscillators, photonic integrated circuits, modulators, demodulators; data processing devices and electronic components for performing forward error correction, namely, digital signal processors (DSP) and application-specific integrated circuits (ASIC), field programmable gate array (FPGA), photo-detectors, optical mixers and combiners, optical filters, local (optical) oscillators, photonic integrated circuits, modulators, demodulators

CLASS 35: Advertising services; business management; business administration; clerical services; advertising, marketing and promotional services; public relations services; product display services, namely, product demonstrations; [organisation of trade fair and commercial exhibition services;] loyalty, incentive and bonus program services, namely, providing incentive award programs through issuance and processing of loyalty points for purchase of a company's goods and services; advertising agency services, namely, provision of advertising space, time and media; distribution of advertising, marketing and promotional material; advertising, marketing and promotional consultancy, advisory and assistance services; commercial trading in the nature of providing trade information and consumer information services in the field of commercial trading * relating to recorded data, information technology, audiovisual, multimedia and photographic equipment, apparatus, instruments and cables for electricity, optical instruments and equipment, amplifiers and correctors, measuring, detection, monitoring and control apparatus, telecommunications equipment, in particular active and passive network components, and network technology together with parts and accessories * ; retail and wholesale store services featuring recorded data, information technology, audiovisual, multimedia and photographic equipment, apparatus, instruments and cables for electricity, optical instruments and equipment, amplifiers and correctors, measuring, detection, monitoring and control equipment, telecommunications equipment, in particular active and passive network components, and network technology including parts and accessories

CLASS 37: repair of audiovisual, multimedia and photographic equipment, apparatus, instruments and cables for electricity, optical instruments and equipment, amplifiers and correctors, measuring, detection, monitoring and control equipment, telecommunications equipment, in particular computer hardware in the nature of active and passive network components, and network technology and parts and accessories; installation services, cleaning, repair of audiovisual, multimedia and photographic equipment, apparatus, instruments and cables for electricity, optical instruments and equipment, amplifiers and correctors, measuring, detection, monitoring and control equipment, telecommunications equipment, in particular active and passive network components, and network technology and parts and accessories in the nature of computer hardware; computer hardware and telecommunication apparatus installation, maintenance and repair; installation, maintenance and repair of computer hardware; installation of hardware for computer networks; installation of hardware for computer systems; maintenance and repair of computer hardware

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT STYLE, SIZE OR COLOR

PRIORITY DATE OF 12-20-2018 IS CLAIMED

OWNER OF INTERNATIONAL REGISTRATION 1515031 DATED 06-19-2019, EXPIRES 06-19-2029

SER. NO. 79-278,976, FILED 06-19-2019

REQUIREMENTS TO MAINTAIN YOUR FEDERAL TRADEMARK REGISTRATION

WARNING: YOUR REGISTRATION WILL BE CANCELLED IF YOU DO NOT FILE THE DOCUMENTS BELOW DURING THE SPECIFIED TIME PERIODS.

Requirements in the First Ten Years*
What and When to File:

- ***First Filing Deadline:*** You must file a Declaration of Use (or Excusable Nonuse) between the 5th and 6th years after the registration date. See 15 U.S.C. §§1058, 1141k. If the declaration is accepted, the registration will continue in force for the remainder of the ten-year period, calculated from the registration date, unless cancelled by an order of the Commissioner for Trademarks or a federal court.

- ***Second Filing Deadline:*** You must file a Declaration of Use (or Excusable Nonuse) and an Application for Renewal between the 9th and 10th years after the registration date.* See 15 U.S.C. §1059.

Requirements in Successive Ten-Year Periods*
What and When to File:

- You must file a Declaration of Use (or Excusable Nonuse) and an Application for Renewal between every 9th and 10th-year period, calculated from the registration date.*

Grace Period Filings*

The above documents will be accepted as timely if filed within six months after the deadlines listed above with the payment of an additional fee.

***ATTENTION MADRID PROTOCOL REGISTRANTS:** The holder of an international registration with an extension of protection to the United States under the Madrid Protocol must timely file the Declarations of Use (or Excusable Nonuse) referenced above directly with the United States Patent and Trademark Office (USPTO). The time periods for filing are based on the U.S. registration date (not the international registration date). The deadlines and grace periods for the Declarations of Use (or Excusable Nonuse) are identical to those for nationally issued registrations. See 15 U.S.C. §§1058, 1141k. However, owners of international registrations do not file renewal applications at the USPTO. Instead, the holder must file a renewal of the underlying international registration at the International Bureau of the World Intellectual Property Organization, under Article 7 of the Madrid Protocol, before the expiration of each ten-year term of protection, calculated from the date of the international registration. See 15 U.S.C. §1141j. For more information and renewal forms for the international registration, see http://www.wipo.int/madrid/en/.

NOTE: Fees and requirements for maintaining registrations are subject to change. Please check the USPTO website for further information. With the exception of renewal applications for registered extensions of protection, you can file the registration maintenance documents referenced above online at http://www.uspto.gov.

NOTE: A courtesy e-mail reminder of USPTO maintenance filing deadlines will be sent to trademark owners/holders who authorize e-mail communication and maintain a current e-mail address with the USPTO. To ensure that e-mail is authorized and your address is current, please use the Trademark Electronic Application System (TEAS) Correspondence Address and Change of Owner Address Forms available at http://www.uspto.gov.