

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM588718

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
OPTICAL CABLE CORPORATION		07/24/2020	Corporation: VIRGINIA
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	NORTH MILL CAPITAL LLC		
<b>Street Address:</b>	821 Alexander Road, Suite 130		
<b>City:</b>	Princeton		
<b>State/Country:</b>	NEW JERSEY		
<b>Postal Code:</b>	08540		
<b>Entity Type:</b>	Limited Liability Company: DELAWARE		
<b>PROPERTY NUMBERS Total: 15</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Serial Number:</b>	74404436	ULTRA-FOX	
<b>Serial Number:</b>	74445521	CORE-LOCKED	
<b>Serial Number:</b>	75763763	OPTIREEL	
<b>Serial Number:</b>	77777478	C OCC	
<b>Serial Number:</b>	77794203	C	
<b>Serial Number:</b>	77796204	OCC	
<b>Serial Number:</b>	77925200	R-JACK	
<b>Serial Number:</b>	85082556	MHC	
<b>Serial Number:</b>	85570301	PROCYON	
<b>Serial Number:</b>	86055208	MARS	
<b>Serial Number:</b>	86225163	L-JACK	
<b>Serial Number:</b>	86225164	RIO	
<b>Serial Number:</b>	86338926	DROP, PLUG AND PLAY	
<b>Serial Number:</b>	86624448	STRONG. INNOVATIVE. COMMUNICATIONS SOLUT	
<b>Serial Number:</b>	87303283	CONNECTIONS YOU CAN COUNT ON	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	609-919-06		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent</i>			

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*using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 609-917-6210  
**Email:** pliberman@northmillcapital.com  
**Correspondent Name:** Patti S. Liberman, General Counsel  
**Address Line 1:** 821 Alexander Road, Suite 130  
**Address Line 4:** Princeton, NEW JERSEY 08540

<b>NAME OF SUBMITTER:</b>	Patti S. Liberman
<b>SIGNATURE:</b>	/PSL/
<b>DATE SIGNED:</b>	07/27/2020

**Total Attachments: 18**

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**COLLATERAL ASSIGNMENT**  
**(Security Agreement)**  
**Effective: July 24, 2020**

**WHEREAS, OPTICAL CABLE COPORATION**, a Virginia corporation, located and doing business at 5290 Concourse Drive, Roanoke, Virginia 24019, **APPLIED OPTICAL SYSTEMS, INC.**, a Delaware corporation, located and doing business at 1700 Capital Avenue Suite 150, Plano, Texas 75074, and **CENTRIC SOLUTIONS LLC**, a Delaware limited liability company, located and doing business at 1700 Capital Avenue Suite 150, Plano, Texas 75074 (individually and collectively, "**Assignor**"), is the owner of certain patents and trademarks some of which are registered in the United States Patent and Trademark Office.

**WHEREAS, NORTH MILL CAPITAL LLC**, a Delaware limited liability company ("**Assignee**"), located and doing business 821 Alexander Road, Suite 130, Princeton, New Jersey 08540, has extended and may hereafter extend credit to Assignor, and Assignor has executed and delivered to Assignee a certain Revolving Credit Master Promissory Note dated July 24, 2020 (as amended, modified, supplemented, substituted, extended or renewed from time to time, the "**Note**") evidencing the present and future advances of credit by Assignee to Assignor and Assignor may in the future execute and deliver to Assignee other notes evidencing the advances of credit by Assignee to Assignor; and

**WHEREAS**, Assignor has executed and delivered to Assignee a certain Loan and Security Agreement dated as of July 24, 2020 (as amended, modified, supplemented, substituted, extended or renewed from time to time, the "**Loan Agreement**") pursuant to which Assignor grants to Assignee a security interest in the Collateral (as defined in the Loan Agreement) of Assignor to secure all of Assignor's Obligations (as defined in the Loan Agreement) to Assignee and Assignor may hereafter execute and deliver to Assignee other similar security agreements; and

**WHEREAS**, in order to further secure Assignor's present and future Obligations (as defined in the Loan Agreement) to the Assignee, Assignor wishes to grant to Assignee a security interest in the Collateral and the goodwill and certain other assets with respect to the Collateral, all as defined below.

**NOW, THEREFORE**, for good and valuable consideration, receipt of which is hereby acknowledged, Assignor, as additional security for the full payment and performance of the Obligations, and to further evidence the security interest granted to the Assignee pursuant to the Loan Agreement, hereby assigns, sells, transfers, and conveys to Assignee and grants to Assignee a security interest in all of Assignor's right, title and interest in:

*With respect to the Patents:*

(a) all patents and patent applications, domestic or foreign (the "**Patents**"), all licenses relating to any of the foregoing and all income and royalties with respect to any licenses (including such patent and patent applications described in **Exhibit A** attached hereto), all future patents, registrations and applications for the protection of inventions and designs hereafter acquired by, granted to, or filed by Assignor which are based upon, derived from or are variations of any invention or designs disclosed in the Patents, all rights to sue for past, present or future infringement thereof, all rights pertaining thereto, and all reissues, divisions, continuations, renewals, extensions and continuation-in-part thereof;

(b) all general intangibles and all intangible intellectual or other similar property of Assignor of any kind or nature, associated with or arising out of any of the aforementioned properties and assets and not otherwise described above; and

(c) all proceeds of any or all of the foregoing Collateral (including license royalties, rights to payments, accounts and proceeds of infringement suits) and, to the extent not otherwise included, all payments under insurance (whether or not Assignee is the loss payee thereof) or any indemnity warranty or guaranty payable by reason of loss or damage to or otherwise with respect to the foregoing Collateral;

*With respect to the Trademarks:*

(d) all state (including common law), federal and foreign trademarks, service marks and tradenames, and application registration of such trademarks, service marks and trade names (but excluding any application to register any trademark, service mark or other mark prior to the filing under applicable law of a verified statement of use (or the equivalent) for such trademark, service mark or other mark to the extent the creation of a security interest therein or the grant of a mortgage thereon would void or invalidate such trademark, service mark or other mark) (the "Trademarks"), all licenses relating to any of the foregoing and all income and royalties with respect to any licenses (including such marks, names and applications described in **Exhibit A-1** attached hereto), whether registered or un registered and wherever registered, all rights to sue for past, present or future infringement or unconsented use thereof, all rights arising therefrom and pertaining thereto and all reissues, extensions and renewals thereof;

(e) all right of action, claims for damages, profits and costs, all other demands for any sum or sums of money whatsoever which it has or may have either at law or in equity, against any and all persons, firms, corporations and associations by reason of claims of infringement upon, or unconsented use of, said Patents and Trademarks;

(f) the entire goodwill of or associated with the business now ore hereafter conducted by Assignor connected with and symbolized by any of the aforementioned properties and assets;

(g) all general intangibles and all intangible intellectual or other similar property of Assignor of any kind or nature, associated with or arising out of any of the aforementioned properties and assets and not otherwise described above;

(h) all proceeds of any or all of the foregoing Collateral (including license royalties, rights to payments, accounts and proceeds of infringement suits) and, to the extent not otherwise included, all payments under insurance (whether or not Assignee is the loss payee thereof) or any indemnity warranty or guaranty payable by reason of loss or damage to or otherwise with respect to the foregoing Collateral.

All of the foregoing items set forth in clauses (a) through (h) are hereinafter referred to collectively as the "Collateral."

AND Assignor and Assignee agree as follows:

1. Representations and Warranties. Assignor represents and warrants to Assignee as follows:

(a) A true and correct listing of all of the existing Collateral consisting of U.S. patents and patent applications or registrations owned by Assignor, in whole or in part, is set forth in **Exhibit A**.

(b) A true and correct listing of all of the existing Collateral consisting of U.S. trademarks, service marks, trade names, and all trademark, service mark and trade name applications owned by Assignor, in whole or in part, is set forth in **Exhibit A-1**.

2. Assignor's Obligations. Assignor agrees that, notwithstanding this Assignment, it will perform and discharge and remain liable for all its covenants, duties, and obligations arising in connection with the Collateral and any licenses and agreements related thereto. Assignee shall have no obligation or liability in connection with the Collateral or any licenses or agreements relating thereto by reason of this Assignment or any payment received by Assignee relating to Collateral, nor shall Assignee be required to perform any covenant, duty, or obligation or Assignor arising in connection with the Collateral or any license or agreement related thereto or to take any other action regarding the Collateral or any such licenses or agreement.

Assignor shall provide prior notice to Assignee in the event Assignor does not preserve or renew any of the Patents and Trademarks, and Assignor shall have the obligation to take any action to prohibit the

infringements or unauthorized use of same by any third party. Assignee shall have no obligation to maintain, preserve or renew the Patents and Trademarks, nor to take any action to prohibit the infringements or unauthorized use of same by any third party.

3. Use Prior to Default. Unless and until an Event of Default under, and as defined in or under the Loan Agreement, or under any future note in favor of Assignee, shall occur and be continuing, Assignor shall retain the legal and equitable title to the Patents and Trademarks and shall have the right to use the Collateral and make, and use the inventions disclosed and claimed in the Patents in the ordinary course of its business, subject to the terms and covenants of the Loan Agreement, and this Assignment.

4. Remedies Upon Default. Whenever any Event of Default under and defined in the Loan Agreement or under any future note evidencing the Obligations, shall occur, Assignor's rights pursuant to Section 2 hereof shall terminate and be null and void, and Assignee shall have all the rights and remedies granted to it in such event by the Loan Agreement or security agreements, which rights and remedies are specifically incorporated herein by reference and made a part hereof. Assignee in such event may collect directly any payments due to Assignor in respect of the Collateral and may sell, license, lease, assign, or otherwise dispose of the Collateral in the manner set forth in the Loan Agreement or in any security agreement by Assignor in favor of Assignee. Assignor agrees that, in the event of any disposition of the Collateral upon any such Event of Default, it will duly execute, acknowledge, and deliver all documents necessary or advisable to record title to the Collateral in any transferee or transferees thereof, including, without limitation, valid, recordable assignments of the Patents and Trademarks. In the event Assignor fails or refuses to execute and deliver such documents, Assignor hereby irrevocably appoints Assignee as its attorney-in-fact, with power of substitution, to execute, deliver, and record any such documents on Assignor's behalf. For the purpose of enabling Assignee to exercise rights and remedies upon any such Event of Default, Assignee hereby grants to Assignee an irrevocable, non-exclusive license (exercisable without payment of royalty or other compensation to Assignor) to use, assign, license, or sub-license any of the Collateral, now owned or hereafter acquired by Assignor, and wherever the same may be located.

5. Cumulative Remedies. This Assignment has been entered into in conjunction with the security interest granted to Assignee under the Loan Agreement. The rights and remedies provide herein are cumulative and not exclusive of any other rights or remedies provided by law. The rights and remedies provided herein are intended to be in addition to and not in substitution of the rights and remedies provided by the Loan Agreement or any other agreement or instrument delivered in connection therewith.

6. Amendments and Waivers. This Assignment may not be modified, supplemented or amended, or any of its provisions waived at the request of Assignor, without the prior written consent of Assignee.

7. Reassignment. At such time as Assignor shall completely satisfy all of the Obligations, Assignee will, at Assignor's request, execute and deliver to Assignor all deeds, assignments and other instruments as may be necessary or proper to re-vest Assignor full title to the Collateral, subject to disposition thereof which may have been made by Assignee pursuant hereto.

8. Severability. If any clause or provision of this Assignment shall be held invalid or unenforceable, in whole or in part, in any jurisdiction, such invalidity or unenforceability shall attach only to such clause or provision, or part thereof, and shall not in any manner affect any other clause or provision in any jurisdiction.

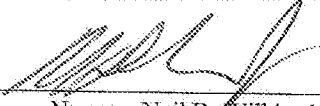
9. Notices. All notices, requests and demands to or upon Assignor or Assignee under this assignment shall be given in the manner prescribed in the Loan Agreement.

10. Governing Law. This Assignment shall be governed by, construed, applied and enforced in accordance with the substantive laws of the State of New Jersey and the United States of America as applicable.

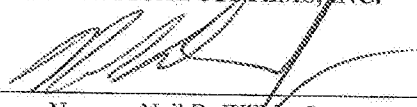
[signatures on next page]

IN WITNESS WHEREOF, the parties have entered into this Collateral Assignment on this 22<sup>nd</sup> day of July, 2020.


**OPTICAL CABLE CORPORATION**

By:   
Name: Neil D. Wilkin, Jr.  
Title: President and CEO

**APPLIED OPTICAL SYSTEMS, INC.**

By:   
Name: Neil D. Wilkin, Jr.  
Title: President and CEO

**CENTRIC SOLUTIONS LLC**

By:   
Name: Neil D. Wilkin, Jr.  
Title: President and CEO

**NORTH MILL CAPITAL LLC**

By: \_\_\_\_\_  
Name:  
Title:

IN WITNESS WHEREOF, the parties have entered into this Collateral Assignment on this 23 day of July, 2020.

**OPTICAL CABLE CORPORATION**

By: \_\_\_\_\_  
Name: Neil D. Wilkin, Jr.  
Title: President and CEO

**APPLIED OPTICAL SYSTEMS, INC.**

By: \_\_\_\_\_  
Name: Neil D. Wilkin, Jr.  
Title: President and CEO

**CENTRIC SOLUTIONS LLC**

By: \_\_\_\_\_  
Name: Neil D. Wilkin, Jr.  
Title: President and CEO

**NORTH MILL CAPITAL LLC**

By: Betsey Hernandez  
Name: Betsey Hernandez  
Title: EVP

**Exhibit A - Patents**

**(see attached)**



## OCC Patents: Summary List and Descriptions

### US PATENTS

1. **US 6,517,377** REDUCED CROSSTALK MODULAR PLUG AND PATCH CORD INCORPORATING THE SAME: Patch cord constructed with plugs which are different at either end, in such a way as to eliminate the wires of any pairs crossing wires of any other pairs. Products - CATEGORY 6, 6A PATCH CORDS
2. **US 6,663,419** REDUCED CROSSTALK MODULAR PLUG AND PATCH CORD INCORPORATING THE SAME: Continuation of 6,517,377. Products - CATEGORY 6, 6A PATCH CORDS
3. **US 7,431,515** FIBER OPTIC TERMINI HAVING MULTIPLE CRIMP PORTIONS: Allows the cable jacket to be captive under crimp sleeve. Products - F-LINK
4. **US 7,441,962** MULTI-CHANNEL FIBER OPTIC CONNECTOR HAVING CAPTIVE ALIGNMENT SLEEVE AND SINGLE SEALING MEANS: Use retainer piece to keep alignment sleeve inside insert cap. Customer does not lose alignment sleeves during connector maintenance. Single O-ring design (instead of two) to reduce cost and complexity of the termini design. Products - EZ-MATE
5. **US 7,448,875** TELECOMMUNICATIONS CONNECTIVITY SYSTEM AND ASSOCIATED PATCH PANEL MOUNTING SYSTEM: A patch panel having brackets with two sets of receiving fasteners. When the fasteners are removed, the panel may articulate to rest against tabs of the bracket.
6. **US 7,575,379** BODY HAVING STAKING PIN AND METHOD OF MAKING: Allows to key the plug body to the insert body using inexpensive components. Design can be exported to different connector types. Products - COTS 83526, EZ-MATE, PIERSIDE, IRIS
7. **US 7,594,829** KEYED MODULAR CONNECTION SYSTEM AND ASSOCIATED ADAPTER CABLE: Continuation of 7,318,754. Covers the elimination of the split wire pair configuration used in T568A/B wiring configurations. Products - KEYED ACCESS FAMILY
8. **US 7,690,921** TELECOMMUNICATION CONNECTIVITY SYSTEM: Continuation of 7,448,875. A method to switch between jack wiring standards by means of a switch or comparable method (header, jumper, etc.).
9. **US 7,811,093** TELECOMMUNICATIONS CONNECTIVITY SYSTEM: Division of 7,690,921. Includes a shutter such that only one jack is available at a time via a switchable shutter to cover one of the jacks.
10. **US 8,074,916** FIBER OPTIC /ELECTRICAL CABLE REEL ASSEMBLY: Connector storage, leader cable management, stacking, retractable handle, lightweight. Products -MARS REEL
11. **US D702,536** FIBER OPTIC-ELECTRICAL CABLE REEL ASSEMBLY: Design Patent Continuation of 8,074,916. Products - MARS REEL
12. **US D741,693** FIBER OPTIC-ELECTRICAL CABLE REEL ASSEMBLY: Design Patent Division of D702,536. Products - MARS REEL
13. **US D829,536** CABLE REEL FOR FIBER OPTIC AND ELECTRICAL CABLE: Design Patent Division of D741,693. Products - MARS REEL
14. **US 8,267,594** QUICK RELEASE CONNECTION: Trigger and release mechanism that disconnects the plug from the receptacle. Products - IRIS
15. **US 8,325,691** METHOD AND APPARATUS FOR PROVIDING WIRELESS COMMUNICATIONS WITHIN A BUILDING: Antennas for wireless communications which can be mounted in a standard electrical type faceplate to allow greater inter-building communication.

TRADEMARK

REEL: 007009 FRAME: 0009

16. **US 8,410,520 RUGGED REGISTERED JACK CONNECTION:** Sealing mechanism of the RJ-45 keystone. Products - R-JACK
17. **US 8,480,023 FIBER OPTIC/ELECTRICAL CABLE REEL ASSEMBLY:** Continuation of 8,074,916. Products - MARS REEL
18. **US 8,655,127 RUGGED FIBER OPTIC CABLE:** Multiple types of fiber optic cables, all with Tight Buffer Fiber Units. Products - HC SERIES CABLES
19. **US 8,764,309 QUICK RELEASE CONNECTION:** Continuation of 8,267,594 Products - IRIS
20. **US 8,790,140 RUGGED REGISTERED JACK CONNECTION:** Continuation of 8,410,520 Products - R-JACK
21. **US 8,798,529 METHOD AND APPARATUS FOR ENHANCING WIRELESS COMMUNICATIONS TO AND FROM THE INSIDE OF A BUILDING:** Covers a device to convert existing building wiring (twisted pair) into an interior antenna for transmitting and receiving wireless device communications.
22. **US 8,834,037 HERMAPHRODITIC CONNECTOR WITH MULTI-FIBER TERMINI:** Use MT ferrule in hermaphroditic connector housing. Products - MHC-III, MHC-T3
23. **US 8,834,042 QUICK TERMINATED FIBER OPTIC TERMINI AND FIBER OPTIC CABLE, AND METHOD FOR MAKING:** Splice-on termini M29504/14&15 Connectors
24. **US 9,097,872 HIGH DENSITY TELECOMMUNICATIONS PATCHING SYSTEM AND CASSETTES:** A rack mount cabinet patching system with associated splice cassettes. Tabs are included so that the cassettes can be readily moved. Cable guides and capture mechanisms are provided for cable management. Products - PROCYON CONNECTIVITY FAMILY
25. **US 9,126,800 FIBER OPTIC/ELECTRICAL CABLE REEL ASSEMBLY WITH CABLE CLIP:** Add cable clips for cable management. Products - MARS REEL
26. **US 9,164,233 FIELD INSTALLABLE CABLE SPLICE SYSTEM:** Splice kit for in-line repair of spooled fiber optic cables.
27. **US 9,246,254 SPRING CONTACT FOR MODULAR CONNECTORS:** A contact assembly for high frequency designs such as category 6A or 8. Very short contacts are desirable for performance, but will overstress when mated with a 6 position plug. This patent describes a means of freeing the contacts to rotate away from a 6 position plug if one is inserted, saving the contacts from overstress.
28. **US 9,300,092 HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSS TALK CONTROL:** A method for splitting ground planes within a connector to reduce the common mode crosstalk between pairs, especially pairs with poor common mode rejection such as 2 and 4. Also describes the use of differing dielectric materials to build up a PCB. Products - CATEGORY 8 PLUG.
29. **US 9,383,525 HARDENED LOW BACK REFLECTION OPTICAL FIBER PHYSICAL CONTACTS AND CONNECTORS CONTAINING SUCH CONTACTS AND METHOD FOR MAKING THE SAME:** An optical fiber connector physical contact with a scratch resistant and low back reflection coating.
30. **US 9,413,397 ANTENNA AND AMPLIFIER STATUS MONITORING SYSTEM:** A device to monitor RF frequencies and adjust signal strength levels to optimize transmission over optical fibers in addition to coaxial cables.
31. **US 9,423,585 FIBER OPTIC CONNECTIVITY SYSTEM:** Covers several features of the rack mount fiber enclosures including grommet design, strain relief bracket, and fiber hoop. Products - RTC PRODUCT FAMILY

32. **US D781,788** SPLICE TRAY CABINET: Design Patent for a splice tray module.
33. **US 9,435,962** KEYED INSERT CAP FOR A FIBER OPTIC CONNECTOR: A fiber optic connector with a mechanically structured insert cap to allow only correct mating of optical fibers for connections. Products - EZ-MATE
34. **US 9,507,114** PASSIVE OPTICAL LAN INTERCONNECT APPARATUS: A fiber optic cable connectivity assembly with cabinet and inner rotating adapter bracket for mounting POL components. Products - POL PRODUCT FAMILY
35. **US D801,285** CEILING MOUNT BOX: Design patent for a Ceiling Mount box for housing Passive Optical LAN cables, splitters, and components. Products - POL PRODUCT FAMILY
36. **US 9,519,108** EXPANDED BEAM FIBER OPTIC SYSTEM: Design feature to make the lens alignment insert easier to machine.
37. **US 9,537,279** MODULAR BACKSHELL APPARATUS FOR CIRCULAR CONNECTORS: Modular back-shell design that can be configured to a 0°, 45° or 90° position. Universal design that can accommodate different connector types.
38. **US 9,583,890** RJ45 CONNECTOR: Continuation-in-part of 9,300,092. Describes a jack having an IDC termination method achieved through pivotally connected lever arms, with optional shielding element internal to jack body. The jack may also have IDC contacts which are staggered in such a way so as to reduce crosstalk between two separate jacks when mounted side by side. Products - CATEGORY 8 PLUG
39. **US 9,621,262** SELF-MONITORING CABLE SYSTEM: A cabling system which provides transport of cable system link diagnostics while continuously transporting data.
40. **US 9,660,386** HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSS TALK CONTROL: Continuation of 9,300,092. Method for stacking signal layers over ground planes using low loss dielectric materials, and using less expensive, higher loss materials between ground planes where signals are blocked. Similarly described in patent 9,300,092. Products - CATEGORY 8 PLUGS
41. **US 9,666,999** A TELECOMMUNICATIONS PATCHING SYSTEM HAVING MOVEABLE CASSETTES: Division of US PATENT 9,097,872 B2 and includes the cable guides integral to the cassette pull-tab. Products - PROCYON CONNECTIVITY FAMILY
42. **US 9,718,638** FIBER OPTIC REEL STAND WITH AXLE BEARING ASSEMBLY: Removable bushing used in axle bearing. Products - LIGHT WEIGHT REEL STAND
43. **US D801,153** FIBER OPTIC REEL STAND WITH AXLE BEARING ASSEMBLY: Continuation in-part of 9,718,638. Products - LIGHT WEIGHT REEL STAND
44. **US 9,774,103** RADIAL TERMINATION SYSTEM FOR A COMMUNICATION CONNECTOR: Design for tool-less termination of RJ-45 connector employing a stuffer cap and plurality of IDCs terminated by rotation.
45. **US 9,944,491** FIBER OPTIC/ELECTRICAL CABLE CARTRIDGE SYSTEM: Cradle system inside the case with wheels attached to the case and Latching mechanism. Products - REEL CARTRIDGE SYSTEM
46. **US 9,952,401** INLINE SPLICING MODULE FOR EASY ACCESS TO CABLE SUBGROUPS: Covers the product line of wall mount and rack mount enclosures and removable cassettes. Products - PROCYON BLADE PRODUCT FAMILY
47. **US D792,860** BREAKOUT MODULE: Design Patent Ref. US 9,952,401. Products - PROCYON BLADE PRODUCT FAMILY

48. **US 10,432,256** SYSTEM FOR REDUCING CROSSTALK AND RETURN LOSS WITHIN ELECTRICAL COMMUNICATION CONNECTORS: Method for applying capacitance for crosstalk reduction between any two conductors in a connector without the capacitor being physically attached to the conductors. Called "shape-neutral", this implementation of capacitance enhances return loss. Products - NEW RJ45 DESIGNS
49. **US 10,498,119** STRUCTURES FOR SECURING BROADCAST CABLING AND CONNECTORS: Covers several of the broadcast enclosure products with the Broadcast wall mount enclosure currently in process of being added. The main product includes the reversible angled front panel face. Products - BROADCAST CONNECTIVITY ENCLOSURES

#### INTERNATIONAL PATENTS

1. **AUSTRALIA AU2011343582** RUGGED FIBER OPTIC CABLE: Ref. US 8,655,127
2. **ISRAEL IL226872 OCC-2A-IL** RUGGED FIBER OPTIC CABLE: Ref. US 8,655,127
3. **TAWAIN TWI616038** HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSS TALK CONTROL: Ref. US 9,300,092
4. **JAPAN JP6511133** HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSS TALK CONTROL: Ref. US 9,300,092
5. **CHINA CN ZL 2015 8 0060663-5** HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSS TALK CONTROL: Ref. US 9,300,092
6. **CANADA CA2,961,920** HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSS TALK CONTROL: Ref. US 9,300,092
7. **AUSTRALIA AU2015324281** HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSS TALK CONTROL: Ref. US 9,300,092
8. **CANADA CA2,987,615** RJ45 CONNECTOR: Ref. US 9,583,890
9. **EUROPEAN EP2834179 – DE, FR, UK** FIBER OPTIC-ELECTRICAL CABLE REEL CARTRIDGE SYSTEM: Ref. US 9,944,491
10. **CHINA CN104334485B** FIBER OPTIC-ELECTRICAL CABLE REEL CARTRIDGE SYSTEM: Ref. US 9,944,491
11. **AUSTRALIA AU2013274885** FIBER OPTIC-ELECTRICAL CABLE REEL CARTRIDGE SYSTEM: Ref. US 9,944,491
12. **CANADA CA2,869,183** FIBER OPTIC-ELECTRICAL CABLE REEL CARTRIDGE SYSTEM: Ref. US 9,944,491

#### PATENT APPLICATIONS

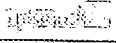



1. **US 16/202,915** FIBER OPTIC CONNECTORS HAVING DIAMOND-LIKE CARBON THIN FILM COATED OPTICAL FIBERS: An optical fiber connector physical contact with a diamond-like carbon scratch resistant and low back reflection coating. Notice of Allowance all claims 1-14 04-Mar-20
2. **US 16/284,601** DEPLOYABLE FIBER OPTIC CABLE WITH PARTIALLY BONDED RIBBON FIBERS: A rugged cable employing partially-bonded ribbons and suitable for deployment applications.
3. **US 16/291,929** PLATED MODULAR ADAPTER: An electrically conductive panel which accepts a plated electrically conductive modular adapter.

4. US 16/373,310 MULTI-STAGE TERMINATION OF A CABLE TO AN RJ-45 OUTLET: A mechanism for reducing the force required to terminate a plurality of wires by staggering the moment in which individual wires engage the IDC contact.
5. US 62/651,460 MULTI-STAGE TERMINATION OF A CABLE TO AN RJ-45 OUTLET
6. US 29/712,217 FIBER SPLICE CASSETTE
7. US 16/750,605 BIDIRECTIONALLY INSTALLABLE INTERMEDIATE MODULAR ADAPTER FOR A RACK-MOUNTED PANEL
8. EUROPEAN EP 2652536A2 RUGGED FIBER OPTIC CABLE: Ref. US 8,655,127
9. EUROPEAN EP 15846527.8 HIGH FREQUENCY RJ45 PLUG WITH NON-CONTINUOUS GROUND PLANES FOR CROSSTALK CONTROL: REF. 9,300,092
10. AUSTRALIA AU 2016270643A1 RJ45 CONNECTOR: Ref. US 9,583,890
11. CHINA CN107889543A RJ45 CONNECTOR: Ref. US 9,583,890
12. JAPAN JP2018520467A RJ45 CONNECTOR: Ref. US 9,583,890
13. TAIWAN TW201701734A RJ45 CONNECTOR: Ref. US 9,583,890
14. EUROPEAN EP 304656A4 RJ45 CONNECTOR: Ref. US 9,583,890

**Exhibit A-1 – Trademarks**

**(see attached)**

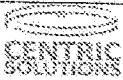
**OPTICAL CABLE CORPORATION REGISTERED TRADEMARKS**

	<u>Name of Mark</u>	<u>Serial Number</u>	<u>Registration Number</u>	<u>Application Date</u>	<u>Registration Date</u>
1	Ultra-Fox	74/404436	1,949,925	June 21, 1993	January 23, 1996
2	Core-Locked	74/445521	1,858,459	October 12, 1993	October 18, 1994
3		75/763762	2,351,945	July 29, 1999	October 24, 2000
4	Optireel	75/763763	2,351,944	July 29, 1999	May 23, 2000
5	MSDE	76/038421	2,442,758	May 2, 2000	April 10, 2001
6	Home Access	76/211121	2,604,105	February 15, 2001	August 6, 2002
7	F-Link	77/389260	3,735,658	February 5, 2009	January 12, 2010
8	IRIS	77/725035	4,301,612	April 29, 2009	March 12, 2013
9		77/777473	3,843,788	July 9, 2009	September 7, 2010
10		77/777478	3,843,789	July 9, 2009	September 7, 2010
11		77/794203	3,858,958	July 31, 2009	October 12, 2010
12	OCC	77/796204	3,858,971	August 4, 2009	October 12, 2010
13	R-JACK	77/925200	3,841,265	February 1, 2010	August 31, 2010
14	Dual Access	85/075217	3,925,217	June 30, 2010	March 1, 2011
15	Limited Access	85/075224	3,925,218	June 30, 2010	March 1, 2011
16	MHC	85/082556	3,908,141	July 12, 2010	January 18, 2011
17	Quad Box	85/222013	4,127,670	January 20, 2011	April 17, 2012
18	Arctic Fox	85/453114	4,160,933	October 21, 2011	June 19, 2012
19	Procyon	85/570301	4,249,425	March 15, 2012	November 27, 2012
20	MARS	86/055208	4,546,782	September 4, 2013	June 10, 2014
21	L-JACK	86/225163	4,657,794	March 18, 2014	December 16, 2014

[2708355-2, 070640-00006-01]

22	RIO	86/225164	4,657,795	March 18, 2014	December 16, 2014
23	Drop, Plug and Play	86/338926	5,443,527	July 16, 2014	April 10, 2018
24	OPTICAL CABLE	86/389063	5,481,292	September 9, 2014	May 29, 2018
25	OPTICAL CABLES	86/389071	5,481,293	September 9, 2014	May 29, 2018
26	Optical Cables by OCC	86/389075	5,481,294	September 9, 2014	May 29, 2018
27	Optical Cable by OCC	86/389079	5,481,295	September 9, 2014	May 29, 2018
28	Procyon Blade	86/554573	5,350,934	March 5, 2015	December 5, 2017
29	OCC. Strong. Innovative. Communication Solutions	86/624449	4,884,977	May 9, 2015	January 12, 2016
30	Strong. Innovative. Communications Solutions.	86/624448	5,156,772	May 9, 2015	March 7, 2017
31	Connections You Can Count On	87/303283	5,303,490	January 16, 2017	October 3, 2017

**CENTRIC SOLUTIONS LLS REGISTERED TRADEMARKS**

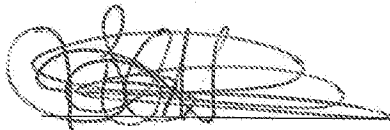
	<u>Name of Mark</u>	<u>Serial Number</u>	<u>Registration Number</u>	<u>Application Date</u>	<u>Registration Date</u>
1		77/856159	3,855,857	October 23, 2009	October 5, 2010

{2708355-2, 070680-00006-01}

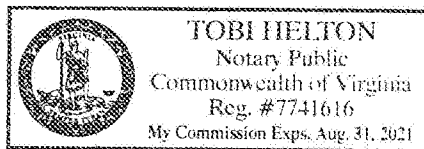


STATE OF VIRGINIA :  
 : SS.  
COUNTY OF ROANOKE:

Before me this 23<sup>rd</sup> day of July, 2020, personally appeared Neil D. Wilkin, Jr., to me personally known, and acknowledged to me that he is the President and CEO of Optical Cable Corporation and acknowledged the foregoing instrument to be the free act and deed of said corporation.

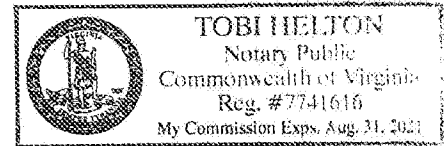
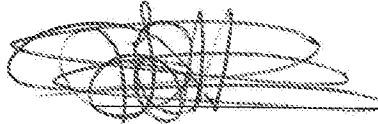


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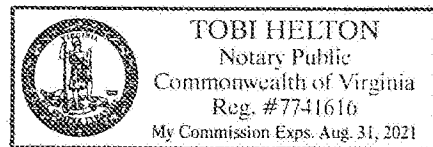
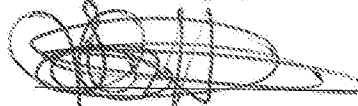
STATE OF VIRGINIA :  
 : SS.  
COUNTY OF ROANOKE:

Before me this 22<sup>nd</sup> day of July, 2020, personally appeared Neil D. Wilkin, Jr., to me personally known, and acknowledged to me that he is the President and CEO of Applied Optical Systems, Inc. and acknowledged the foregoing instrument to be the free act and deed of said corporation.



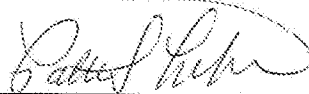
STATE OF VIRGINIA :  
 : SS.  
COUNTY OF ROANOKE:

Before me this <sup>2nd</sup> day of July, 2020, personally appeared Neil D. Wilkin, Jr., to me personally known, and acknowledged to me that he is the President and CEO of Centric Solutions LLC and acknowledged the foregoing instrument to be the free act and deed of said limited liability company.



STATE OF NEW JERSEY :  
 : SS.  
COUNTY OF SOMERST :

Before me this 24th day of July, 2020, Beatriz Hernandez, the **Executive Vice Present** of **North Mill Capital LLC**, to me personally known, acknowledged to me that she is an officer, and acknowledged she was authorized to execute and deliver the foregoing instrument on behalf of said limited liability company.



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Patti S. Liberman  
An Attorney at Law  
State of New Jersey