

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7658616

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
KEVIN L CALLAN	12/03/2019
ANDREW M SINGLETON	12/03/2019
RYAN M CRITTENDEN	12/03/2019
MICHAEL L FISHER	12/03/2019
WADE COLLINS	12/03/2019
FRANCIS L STRUEMPH	12/03/2019
EDWARD F STEPHENS IV	12/03/2019
RECEIVING PARTY DATA	
Name:	NORTHROP GRUMMAN SYSTEMS CORPORATION
Street Address:	2980 FAIRVIEW PARK DRIVE
City:	FALLS CHURCH
State/Country:	VIRGINIA
Postal Code:	22042
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17455530
CORRESPONDENCE DATA	
Fax Number:	(419)241-6894
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	4192419000
Email:	apilewski@shumaker.com
Correspondent Name:	SHUMAKER, LOOP & KENDRICK, LLP
Address Line 1:	1000 JACKSON STREET
Address Line 4:	TOLEDO, OHIO 43604
ATTORNEY DOCKET NUMBER:	258771
NAME OF SUBMITTER:	JOHN A. MILLER
SIGNATURE:	/John A. Miller/
DATE SIGNED:	11/22/2022

Total Attachments: 8

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ASSIGNMENT

WHEREAS, We, Kevin L. Callan, Andrew M. Singleton, Ryan M. Crittenden, Michael L. Fisher, Wade Collins, Francis L. Struempf and Edward F. Stephens IV, hereinafter referred to as Assignors, have invented certain new and useful improvements in **VOLTAGE POLARITY IMMUNITY USING REVERSE PARALLEL LASER DIODES**, described in an application for United States Letters Patent, executed by us on the date as stated below;

WHEREAS, Northrop Grumman Systems Corporation, a Delaware corporation, having its principal place of business at

2980 Fairview Park Drive
Falls Church, VA 22042-4511
United States of America,

hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignors' obligations to Northrop Grumman Systems Corporation, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignors' entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters Patent that may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent that may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent that may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignors hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignors hereby acknowledge that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignors hereby covenant that Assignor has full right to convey the interest herein assigned, and that Assignors have not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Systems Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right could have been held and enjoyed by Assignors had this Assignment not been made.

Assignors hereby further covenant and agree to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignee with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignors; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 3rd day of December, 2019, and has executed the referenced patent application on the 3rd day of December, 2019.



Kevin L. Callan


A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF MISSOURI)
COUNTY OF St. Charles Co.^{SS})

On December 3rd, 2019, before me, Lindsey Renee Wirth, Notary Public, personally appeared Kevin L. Callan, proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Missouri that the foregoing paragraph is true and correct.

WITNESS my hand and official seal



Notary's Signature

(Seal)

LINDSEY RENEE WIRTH
Notary Public, Notary Seal
State of Missouri
St. Louis County
Commission # 18616440
My Commission Expires 06-18-2022

3rd IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this
day of December, 2019, and has executed the referenced patent application on
the 3rd day of December, 2019.

Andrew M. Singleton
Andrew M. Singleton

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STATE OF MISSOURI)
COUNTY OF St. Charles Co.)^{SS}

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personally appeared Andrew Singleton proved to me on the basis of satisfactory evidence to be
the person(s) whose name(s) is/are subscribed to this instrument and acknowledged to me that
he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their
signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted,
executed the instrument.

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Lindsey Renee Wirth
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(Seal)

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Ryan M. Crittenden

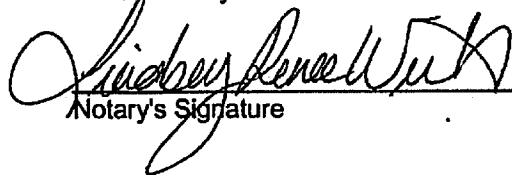
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STATE OF MISSOURI)
COUNTY OF St. Charles Co.) ss)

On December 3rd, 2019, before me, Lindsey Renee Wirth, Notary Public, personally appeared Ryan M. Crittenden, proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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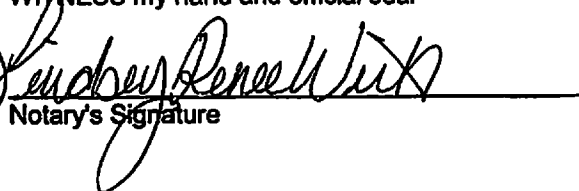

Michael L. Fisher

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STATE OF MISSOURI)
COUNTY OF St. Charles) ss)

On December 3rd, 2019, before me, Lindsey Renee Wirth Notary Public, personally appeared Michael Fisher, proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.


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Wade Collins

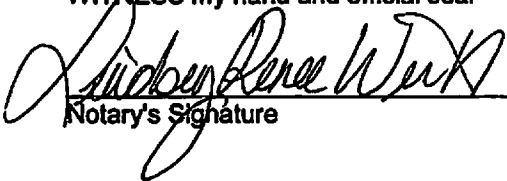
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STATE OF MISSOURI)
COUNTY OF J. Charles Co.)^{ss}

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Francis L. Struempf

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STATE OF MISSOURI)
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St. Louis County
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Edward F. Stephens IV

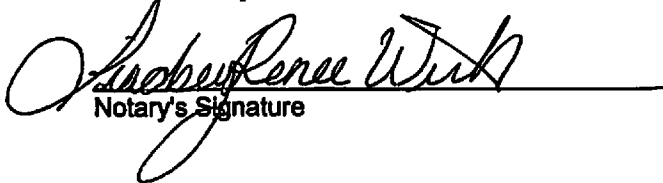
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