

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6968709

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
APURVA SHANTHARAJ GOWDA	07/10/2019
BRANDON WALTER BUCKLEY	07/10/2019
JASON THOMAS CHOU	07/10/2019
PETER THOMAS SETSUDA DEVORE	07/31/2019
DAVID SIMON PERLMUTTER	07/10/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LAWRENCE LIVERMORE NATIONAL SECURITY, LLC
<b>Street Address:</b>	7000 EAST AVENUE
<b>City:</b>	LIVERMORE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94550
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	17500777
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(206)359-7198
<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>	
<b>Phone:</b>	(206)359-8000
<b>Email:</b>	patentprocurement@perkinscoie.com
<b>Correspondent Name:</b>	PERKINS COIE LLP
<b>Address Line 1:</b>	P.O. BOX 1247
<b>Address Line 2:</b>	PATENT - SEA
<b>Address Line 4:</b>	SEATTLE, WASHINGTON 98111-1247
<b>ATTORNEY DOCKET NUMBER:</b>	077518-8109.US02
<b>NAME OF SUBMITTER:</b>	TATJANA MIRKOVIC
<b>SIGNATURE:</b>	/Tatjana Mirkovic/
<b>DATE SIGNED:</b>	10/14/2021
<b>Total Attachments: 2</b>	

source=Executed Assignment (077518-8109.US00)#page1.tif

source=Executed Assignment (077518-8109.US00)#page2.tif

## ASSIGNMENT

LLNL Record of Invention Case No. IL-13439, entitled:

### ALL-OPTICAL HELIX ENCODER

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(s)

- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| 1. <u>Apurva Shantharaj Gowda</u> | 2. <u>Brandon Walter Buckley</u>      |
| 3. <u>Jason Thomas Chou</u>       | 4. <u>Peter Thomas Setsuda DeVore</u> |
| 5. <u>David Simon Perlmutter</u>  | 6. _____                              |

hereby sells, assigns, transfers, and conveys to ASSIGNEE, Lawrence Livermore National Security, LLC, a Delaware limited liability company, having a place of business at 7000 East Avenue, Livermore, CA 94550 and the successors, assigns and legal representative of the ASSIGNEE all of its right, title and interest throughout the world in and to any and all inventions and discoveries found in the above-listed LLNL Record of Invention Case No. and in:

- U.S. Provisional Application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_
- U.S. Patent Application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_
- International Application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_

and any legal equivalent thereof in a foreign country, including the right to claim priority, and in and to all Letters Patent to be obtained for said inventions and discoveries by the above application(s) or any continuation, division, continuation-in-part, extension or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all rights under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;


ASSIGNOR(S) further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the ASSIGNOR(S) requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, Lawrence Livermore National Security, LLC.

executed this

07/10/2019  
Date

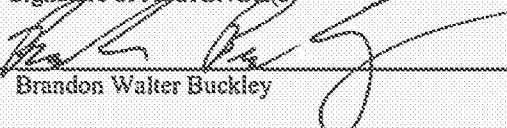
Signature of ASSIGNOR(s)

  
Apurva Shantharaj Gowda

executed this

7/10/19  
Date

Signature of ASSIGNOR(s)

  
Brandon Walter Buckley

LLNL Case No.: IL-13439

executed this

7/10/19

Date

executed this

7/31/19

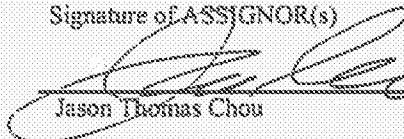
Date

executed this

7/10/19

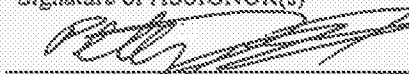
Date

Signature of ASSIGNOR(s)



Jason Thomas Chou

Signature of ASSIGNOR(s)



Peter Thomas Setsuda DeVore

Signature of ASSIGNOR(s)



David Simon Perlmutter