505855335 01/09/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5902272

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the ASSIGNEE TO ADD SANKEN ELECTRIC CO., LTD. AS A SECOND ASSIGNEE previously recorded on Reel 051385 Frame 0971. Assignor(s) hereby confirms the ASSIGNEE SANKEN ELECTRIC CO., LTD. SHOULD BE ADDED AS A SECOND ASSIGNEE.

CONVEYING PARTY DATA

Name	Execution Date
DOSI DOSEV	03/04/2016
DON RANKILA	03/04/2016
TATSUYA KAMIMURA	03/01/2016
SHUNSUKE FUKUNAGA	02/24/2016
STEVEN KOSIER	03/04/2016
PETER WEST	03/04/2016

RECEIVING PARTY DATA

Name:	: POLAR SEMICONDUCTOR, LLC	
Street Address:	Address: 2800 E. OLD SHAKOPEE RD	
City:	: BLOOMINGTON	
State/Country:	MINNESOTA	
Postal Code:	55425	
Name:	SANKEN ELECTRIC CO., LTD.	
Street Address:	6-3, KITANO 3-CHROME	
Internal Address:	NIIZA-SHI	
City:	SAITAMA	
State/Country:	JAPAN	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16724862

CORRESPONDENCE DATA

Fax Number: (781)401-9966

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.

 Phone:
 7814019988

 Email:
 jlm@dc-m.com

Correspondent Name: DALY, CROWLEY, MOFFORD & DURKEE, LLP

PATENT
REEL: 051533 FRAME: 0642

505855335

Address Line 1: ONE UNIVERSITY AVENUE

Address Line 2: SUITE 201B

Address Line 4: WESTWOOD, MASSACHUSETTS 02090

ATTORNEY DOCKET NUMBER: POLAR-038CUS

NAME OF SUBMITTER: ANTHONY T. MOOSEY

SIGNATURE: /Anthony T. Moosey/

DATE SIGNED: 01/09/2020

Total Attachments: 9

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PATENT REEL: 051533 FRAME: 0643

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5888023

SUBMISSION TYPE:	NEW ASSIGNMENT	0000000000
NATURE OF CONVEYANCE:	ASSIGNMENT	-

CONVEYING PARTY DATA

Name	Execution Date
DOSI DOSEV	03/04/2016
DON RANKILA	03/04/2016
TATSUYA KAMIMURA	03/01/2016
SHUNSUKE FUKUNAGA	02/24/2016
STEVEN KOSIER	03/04/2016
PETER WEST	03/04/2016

RECEIVING PARTY DATA

Name:	POLAR SEMICONDUCTOR, LLC
Street Address:	2800 E. OLD SHAKOPEE RD
City:	BLOOMINGTON
State/Country:	MINNESOTA
Postal Code:	55425

PROPERTY NUMBERS Total: 1

Announced	Property Type	Number
THE PERSONNEL PROPERTY.	Application Number:	62119555

CORRESPONDENCE DATA

Fax Number:

(781)401-9966

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.

Phone:

7819895164

Email:

mkt@dc-m.com

Correspondent Name:

DALY, CROWLEY, MOFFORD & DURKEE, LLP

Address Line 1:

ONE UNIVERSITY AVENUE

Address Line 2:

SUITE 201B

Address Line 4:

WESTWOOD, MASSACHUSETTS 02090

ATTORNEY DOCKET NUMBER:	POLAR-038CUS
NAME OF SUBMITTER:	ANTHONY T. MOOSEY
SIGNATURE:	/Anthony T. Moosey/
DATE SIGNED:	12/30/2019

PATENT REEL: 051533 FRAME: 0644

Attorney Docket No.

P440.12-0066

(PROVISIONAL AND NONPROVISIONAL APPLICATIONS)

First Named Inventor

Dosi Dosev

Title

TRENCH SEMICONDUCTOR DEVICE LAYOUT CONFIGURATION

WHEREAS, I. Dosi Dosev, of Woodbury, MN, U.S.A.; Don Rankila, of Farmington, MN, U.S.A.; Tatsuya Kamimura, of St. Louis Park, MN, U.S.A.; Shunsuke Fukunaga, of Saitama, Japan; Steven Kosier, of Lakeville, MN, U.S.A.; and Peter West, of Minneapolis, MN, U.S.A. have invented certain new and useful improvements as described in an application entitled TRENCH SEMICONDUCTOR DEVICE LAYOUT CONFIGURATION for Letters Patent of the United States, the application being identifiable by its title and named inventors above, and/or being identifiable in the United States Patent and Trademark Office by Application No. 15/051,642, filed February 23, 2016; and which claims priority from a provisional application entitled TRENCH SEMICONDUCTOR DEVICE LAYOUT CONFIGURATION identifiable in the United States Patent and Trademark Office by Application No. 62/119,555, filed February 23, 2015; and

WHEREAS, Polar Semiconductor, LLC, a corporation organized and existing under the laws of the State of Delaware, and having offices at 2800 E Old Shakopee Rd, Bloomington, MN 55425, U.S.A., ("Assignee") and SANKEN ELECTRIC CO., LTD., a corporation organized and existing under the laws of Japan, and having offices at 6-3, Kitano 3-Chrome, Niiza-shi, Saitama, Japan, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the application, and any and all Letters Patent or similar legal protection, foreign or domestic, to be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged. I transfer to Assignee, its successors and assigns, my entire right, title and interest in and to the invention, the above-identified application, corresponding domestic and foreign applications, all Letters Patent or similar legal protection issuing thereon, and all rights and benefits under any applicable treaty or convention; and I authorize the Commissioner of Patents and Trademarks of the United States or foreign equivalent thereof to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert in this instrument the filing date and application number of the application when ascertained.

I authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries.

I represent to the Assignee, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries.

Dani Daner

Witness Simustore

William'r Deietad Mores

3/4/16

Page 1 of 6 Pages

PATENT REEL: 044962 FRAME: 0102 REEL: 051533 FRAME: 0645

Attorney Docket No. P440.12-0066

(PROVISIONAL AND NONPROVISIONAL APPLICATIONS)

Don Kunhol

3/9/2016

Date

Witness Signature

Witness Printed Name

(PROVISIONAL AND NONPROVISIONAL APPLICATIONS)

Attorney Docket No. P440.12-0066

Tarcya Kamimura

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-Witness Signisure

Michiko Koyama Witness Printed Name 3/1/20/6 Date

Page 3 of 6 Pages

PATENT REEL: 044982 FRAME: 0104 REEL: 051533 FRAME: 0647

ASSIGNMENT (PROVISIONAL APPLICATIONS)

Attorney Docket No. P440.12-0066

Keiji Hannuhi Witness Signature

Keiji Hannuki Wilness Printed Namo

Page 4 of 6 Pages

Attorney Docket No. P440.12-0066

(PROVISIONAL AND NONPROVISIONAL APPLICATIONS)

Steven Kosier

Date

Wilness Signature

Witness Printed Name

Attorney Docket No. P440.12-0066

Date

(PROVISIONAL AND NONPROVISIONAL APPLICATIONS)

est

Witness Signature

Dos: Doscv Witness Printed Name

Page 6 of 6 Pages

PATENT REEL: 044982 FRAME: 0107 REEL: 051533 FRAME: 0650

RECORDED: 02/29/2018 RECORDED: 01/09/2020