Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------------|----------------|
| Shinichi Tanaka | 06/06/2009 |
| Kiyoshi Narisawa | 06/05/2009 |
| Texas Instruments Japan, Ltd. | 06/10/2009 |

RECEIVING PARTY DATA

| Name: | Texas Instruments Incorporated | |
|-----------------|--------------------------------|--|
| Street Address: | 7839 Churchill Way M/S 3999 | |
| City: | Dallas | |
| State/Country: | TEXAS | |
| Postal Code: | 75051 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number | | |
|---------------------|----------|--|--|
| Application Number: | 12469206 | | |

CORRESPONDENCE DATA

Fax Number: (972)917-4418

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

 Phone:
 972-917-5452

 Email:
 mbensel@ti.com

Correspondent Name: Texas Instrument Incorporated
Address Line 1: 7839 Churchill Way M/S 3999

Address Line 4: Dallas, TEXAS 75051

| ATTORNEY DOCKET NUMBER: | TI-65951 |
|-------------------------|-------------|
| NAME OF SUBMITTER: | Mary Bensel |

Total Attachments: 4

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PATENT 500922257 REEL: 023019 FRAME: 0749

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ASSIGNMENT

WHEREAS, TEXAS INSTRUMENTS JAPAN, LTD. (hereinafter TIJ), a Japanese company having its headquarters at 24-1 Nishi-Shinjuku 6-chome, Shinjuku-ku, Tokyo, Japan, under the laws of Japan made application, in its own name, for Letters Patent in Japan in respect of an invention as set forth below:

WHEREAS, the below named inventor (hereinafter INVENTOR) is the inventor of the said invention:

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, having a place of business at 7839 Churchill Way, Mail Station 3999, Dallas, Texas 75251, USA, is desirous of acquiring the entire right, title and interest in and to the said invention outside of Japan, and in and to the U.S. patent application as identified hereinafter and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, by this Assignment, TIJ and INVENTOR sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns the entire right, title and interest in and to the said invention in the U.S.A. and all other countries outside Japan; in and to the U.S. patent application as identified below and all patents which may be granted therefore, and all divisions, reissues, substitutions, continuations, and extensions thereof; and the right to file applications and obtain patents in its own name in any said other country or group of countries, and to claim priority under the terms of the Paris Convention for the Protection of Industrial Property, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

TIJ and INVENTOR hereby authorize and request the Commissioner of Patents to issue U.S. patents for said invention, or U.S. patents resulting therefrom, insofar as the interest of TIJ and INVENTOR is concerned to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of the entire right, title and interest.

TIJ and INVENTOR further agree to communicate to TEXAS INSTRUMENTS INCORPORATED or to its successors, assigns and legal representatives, any facts known to TIJ and INVENTOR respecting the said invention, and at the expense of TEXAS INSTRUMENTS INCORPORATED, sign any and all patent applications, assignments, affidavits and other lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, testify in any legal or quasi-legal proceedings and generally do everything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries outside of Japan.

| Assignment |
|-------------|
| TIJ-65951 |
| Page 2 of 2 |

| LED DEVICE AND LED DRI Title of Invention | <u>VE</u> | | | |
|--|--------------------|-----------------------------------|------------------------------|----------|
| Japanese Serial No.: | 2008-131,784 | Filed: | 05/20/2008 | |
| U.S. Application Serial No.: | 12/469,206 | Filed: | 05/20/2009 | |
| IN WITNESS WHER | EOF, this Agreemen | t has been | executed as set forth below; | |
| Signed at Tokyo, Japan | on_June 10, 20 | 009 | | |
| Name Toshiyuki Yar Title Representative I Date June 10, 2009 | masaki | :ide nt | | |
| and by the INVENTORS : | · | | | |
| Shinichi Tanaka | | | • | |
| 7-23-407 Shinogawamachi, Address 6 / o 6 / s Date | | <u>Ku, Tokyo</u> | <u>162-0814 JAPAN</u> | |
| (2) | | | | |
| Kiyoshi Narisawa | | | | |
| <u>1-21-5-602 Misono, Hyogo-</u> Address | Ken Amagasaki-Shi | <u>Amagasa</u> | ki, Hyogo-Ken 661-0984 JAPA | <u>N</u> |
| Date | | | | |

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Assignment TIJ-65951 Page 2 of 2

RECORDED: 07/29/2009

| LED DEVICE AND LED DRI Title of Invention | <u>VE</u> | | |
|--|--------------------------|-------------|------------------------------|
| Japanese Serial No.: | 2008-131,784 | Filed: | 05/20/2008 |
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| IN WITNESS WHER | EOF, this Agreemer | it has been | executed as set forth below; |
| Signed at Tokyo, Japan | on_June_10, 2 | 009 | |
| by Texas Instruments Japa Name Toshiyuki Yar Title Representative Div | nasaki | —— dent | |
| Date June 10, 2009 | | | |
| and by the INVENTORS : | | | |
| Shinichi Tanaka | | | |
| 7-23-407 Shinogawamachi, Address | Tokyo-To Shinjuku | -Ku, Tokyo | <u>162-0814 JAPAN</u> |
| Date | | | |
| (2) Kiyoshi Narisawa | | | |
| 1-21-5-602 Misono, Hyogo-l Address | <u>Ken Amagasaki-Shi</u> | Amagasal | ki, Hyogo-Ken 661-0984 JAPAN |
| / 0 9 06 05 Date | | | |