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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAKAHISA OGAWA	10/31/2018
MITSUNORI FUKURA	11/01/2018
NOBUYOSHI TAKAHASHI	10/31/2018

RECEIVING PARTY DATA

Name:	TOWERJAZZ PANASONIC SEMICONDUCTOR CO., LTD.
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16194553

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SIGNATURE:	/Daniel F. Drexler/
DATE SIGNED:	11/19/2018

Total Attachments: 2 source=86L3937#page1.tif

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PATENT REEL: 047537 FRAME: 0072 505196545

ASSIGNMENT

WHEREAS we, Takahisa OGAWA of c/o TowerJazz Panasonic Semiconductor Co., Ltd., 800 Higashiyama, Uozu City, Toyama 937-8585, Japan, Mitsunori FUKURA of c/o TowerJazz Panasonic Semiconductor Co., Ltd., 800 Higashiyama, Uozu City, Toyama 937-8585, Japan and Nobuyoshi TAKAHASHI of c/o TowerJazz Panasonic Semiconductor Co., Ltd., 800 Higashiyama, Uozu City, Toyama 937-8585, Japan (hereinafter referred to as "ASSIGNOR") of have invented certain new and useful improvements in:

SEMICONDUCTOR DEVICE AND METHOD FOR MANUFACTURING SAME which is a continuation of International Patent Application No. <u>PCT/JP2017/016834</u> filed on <u>April 27, 2017</u> which claims priority to **Japanese** Application No. <u>2016-099218</u> filed on <u>May 18, 2016</u>, and for which we are about to file or have filed an application for Letters Patent of the United States;

AND WHEREAS, TowerJazz Panasonic Semiconductor Co., Ltd. (hereinafter referred to as "ASSIGNEE"), a corporation organized and existing under the laws of Japan having a place of business at 800 Higashiyama, Uozu City, Toyama 937-8585, Japan is desirous of acquiring an interest in the United States and all foreign countries, in and to the said invention and Letters Patent to be obtained therefor:

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNOR, have assigned and transferred, and hereby assign and transfer unto the said ASSIGNEE, the entire right, title and interest in and to said invention in the United States and in all foreign countries, including priority rights, as fully set forth and described in said application; and we do hereby authorize and request the Commissioner of Patents to issue said Letters Patent on said application, and any and all Letters Patent that may be issued upon any and all revivals, refilings, continuations, continuations-in-part, divisions and reissues thereof, to the said ASSIGNEE, an assignee of the entire right, title and interest in and to the same, for the sole use and behoof of ASSIGNEE, its successors and assigns; and we do hereby agree that the said ASSIGNEE, may apply for foreign Letters Patent on said invention and that we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by the said ASSIGNEE, its successors or assigns, and that we will, at the cost and expense of the said ASSIGNEE fully assist and cooperate in all matters in connection with the United States and foreign applications and patents issuing thereon.

The undersigned declare that all statements made herein of his/her own knowledge are true and that all statements made on information and belief are believed to be true; and further that these

PATENT REEL: 047537 FRAME: 0073 statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dete: October 31. 2018 Takahisa Ogawa L.S.
Takahisa OGAWA

Date: November 1. 2018 Mitsunor Jukure L.S.

Mitsunori FUKURA

Date: October 31. 2018 Nobuyoshi Filishashi L.S. Nobuyoshi TAKAHASHI