

AMK 8-31-98

09-14-1998



M COVER SHEET
Iemark Office

Attorney Docket No.: TIJ-24816

100826435

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

- 1) Hiroyuki (nmi) Enomoto
- 2) Kazuo (nmi) Yamazaki
Hitachi Ltd.
- 3) Masayuki (nmi) Yasuda
Texas Instruments Japan, Ltd.

2. Name and Address of receiving party(ies):

Name: Texas Instruments Incorporated
 Address: P.O. Box 655474, MS 3999
 City: Dallas, Texas
 State: TX Zip: 75265

Additional name(s) & address(es) attached?
 ___ Yes X No

3. Nature of Conveyance:

- X Assignment
- ___ Merger
- ___ Security Agreement
- ___ Change of Name
- ___ Change of Address

Execution Date: August 13,14,18,19, 1998

4. Application number(s) or patent number(s).

___ This document is being filed together with a new application.

Execution date of the application: August 13,18,19, 1998

Title: MANUFACTURING METHOD OF SEMICONDUCTOR IC DEVICE

Docket No: TIJ-24816

A. Patent Application No.(s): S.N. 09/019,087

B. Patent No.(s)

Additional numbers attached? ___ Yes X No

Additional numbers attached? ___ Yes X No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: William B. Kempler, Reg. No. 28,228
 Senior Corporate Patent Counsel
 Texas Instruments Incorporated
 Address: P.O. Box 655474, MS 3999
 City: Dallas
 State: TX
 Zip: 75265

6. Number of applications and patents involved: (1)

7. Amount of fee enclosed or authorized to be charged: \$40

8. Deposit Account No: 20-0668
(Duplicate copies not required).

DO NOT USE THIS SPACE

09/10/1998 JSHBAZZ 00000181 200668 09019087

Fee OK

9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

[Signature]
 William B. Kempler, Reg. No. 28,228

8/27/98
 Date

WBK:kms

Total Number of Pages Including Cover Sheet, Attachments and Document: 3

ASSIGNMENT

WHEREAS, TEXAS INSTRUMENTS JAPAN, LTD. (hereinafter **TIJ**), a Japanese company having its headquarters at Aoyama Fuji Bldg., 6-12 Kita-Aoyama 3-Chome, Minato-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 or each below named inventor (hereinafter **INVENTOR**) is the or an 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, jointly along side **HITACHI, LTD.,** a corporation organized and existing under the laws of Japan, having a place of business at Central Research Laboratory 280, Higashi-koigakubo 1-Chome, Kokubunji-shi, Tokyo 185-8601 Japan is desirous of acquiring an undivided 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** and **HITACHI, LTD.,** its successors and assigns, an undivided 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 therefor, 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 International Convention for the Protection of Industrial Property or any other relevant convention;

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** and **HITACHI LTD.,** as assignee of the entire right, title and interest.

TIJ and **INVENTOR** further agree to communicate to **TEXAS INSTRUMENTS INCORPORATED** and **HITACHI LTD.,** 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** and **HITACHI LTD.,** 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** and **HITACHI LTD.,** their successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries outside of Japan.

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MANUFACTURING METHOD OF SEMICONDUCTOR IC DEVICE

Title of Invention

Hiroyuki (nmi) Enomoto, Kazuo (nmi) Yamazaki, Masayuki (nmi) Yasuda
Inventors

Japanese Serial No.: 9(1997)-023040 Filed: 5 February 1997

U.S. Application Serial No.: 09/019,087 Filed: 5 February 1998

IN WITNESS WHEREOF, this Agreement has been executed as set forth below;

Signed at Tokyo, Japan on August 14, 1998

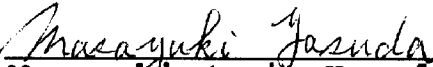
by **Texas Instruments Japan, Ltd.**

Name 
Toshiaki Ikoma

Title Representative Director and President

Date 8/14/98

And by the inventor(s):

(1) 
Masayuki (nmi) Yasuda

7-202 Happiness Iida, 44-2 Kami-cho, Tsunashima, Kouhoku-Ku,
Yokohama-shi, Kanagawa 223-0055, Japan
Address

8/13/98
Date

ASSIGNMENT

WHEREAS, HITACHI LTD. (hereinafter **HITACHI**), a Japanese company having its headquarters at Central Research Laboratory 280, Higashi-koigakubo 1-Chome, Kokubunji-shi, Tokyo 185-8601 Japan, under the laws of Japan made application, in its own name, as a joint applicant with Texas Instruments Japan, Ltd. of Aoyama Fuji Bldg., 6-12 Kita-Aoyama 3-Chome, Minato-ku, Tokyo, Japan, for Letters Patent in Japan in respect of an invention as set forth below;

WHEREAS, Hiroyuki (nmi) Enomoto and Kazuo (nmi) Yamazaki (hereinafter **INVENTOR**) are joint inventors, along with Masayuki (nmi) Yasuda, of the said invention;

WHEREAS, HITACHI is desirous of acquiring **INVENTOR** entire undivided 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, **INVENTOR** sell and assign to the said **HITACHI**, its successors and assigns, **INVENTOR** an undivided 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 therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and the right to file applications and obtain patents in its own name jointly with Texas Instruments Japan, Ltd. of Tokyo, Japan, or its successors or assigns in any said other country or group of countries, and to claim priority under the terms of the International Convention for the Protection of Industrial Property or any other relevant convention;

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 **INVENTOR** is concerned to the said **HITACHI**, as assignee of **INVENTOR** entire undivided right, title and interest.

INVENTOR further agree to communicate to **HITACHI** or to its successors, assigns and legal representatives, any facts known to **INVENTOR** respecting the said invention, and at the expense of **HITACHI**, 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 **HITACHI**, its successors, assigns and nominees, jointly with Texas Instruments Japan, Ltd. of Tokyo, Japan, or its successors or assigns, to obtain and enforce proper patent protection for said invention in all countries outside of Japan.

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PATENT
REEL: 9435 FRAME: 0279

MANUFACTURING METHOD OF SEMICONDUCTOR IC DEVICE

Title of Invention

Hiroyuki (nmi) Enomoto, Kazuo (nmi) Yamazaki, Masayuki (nmi) Yasuda
Inventors

Japanese Serial No.: 9(1997)-023040 Filed: 5 February 1997

U.S. Application Serial No.: 09/019,087 Filed: 5 February 1998

IN WITNESS WHEREOF, this Agreement has been executed as set forth below;

by **JOINT INVENTOR(S)**:

(1) Hiroyuki Enomoto
Hiroyuki (nmi) Enomoto

9-3-12-404, Shimorenjyaku, Mitaka-shi, Tokyo 181-0013, Japan
Address

08/18/1998

Date

(2) Kazuo Yamazaki
Kazuo (nmi) Yamazaki

3-1-71, Fujimoto, Kokubunji-shi, Tokyo 185-0031, Japan
Address

8/19/1998

Date

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