

12-10-2003



102619476

To the Honorable Commissioner of Patents and

original documents or copy thereof.

1. Name of conveying part(ies):

(1) Chi-Jung HUANG (3) Chung-JEN
 (2) Fa-Liang WANG (4) Ching-I YEH

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)

Name: Taiwan Semiconductor Manufacturing Co., Ltd.

Street Address: No. 8, Li-Hsin Rd.,
 Science-Based Industrial Park
 Hsin-Chu, Taiwan 300-77
 R.O.C.

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

3. Nature of conveyance:

Assignment Merger
 Security Agreement Change of Name
 Other:

Execution Date: (1) August 26, 2003; (2) August 25, 2003;
 (3) August 28, 2003; (4) August 26, 2003

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

If this document is being filed together with a new application, the execution date of the application is:

A. Patent application No.(s)
 10/646,169

B. Patent No.(s)

Additional numbers attached? Yes No

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

Daniel R. McClure
Thomas, Kayden, Horstemeyer & Risley, L.L.P.
 100 Galleria Parkway, Suite 1750
 Atlanta, Georgia 30339-5948

6. Total number of applications/patents involved: [1]

7. Total fee (37 CFR 3.41) \$ 40.00

Enclosed
 Authorization to charge credit card (attached)

8. Deposit Account Number:
 20-0778
 (Attach duplicate copy of this page if paying by Deposit Account)

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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.

Daniel R. McClure *Daniel R. McClure* Dec 3 2003
 Typed Name Signature Date

Docket #: 252011-1300 Total number of pages including cover sheet, attachments, and document: [3]

Mail documents to be recorded with required cover sheet information to:

Mail Stop Assignment Recordation Services
Director of U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

12/09/2003 MUELLER 00000056 10646169

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ASSIGNMENT

WHEREAS, Chi-Jung HUANG, Fa-Liang WANG, Chung-I LIU
and Ching-I YEH hereafter referred to as ASSIGNOR, has/have invented certain
new and useful improvements as described and set forth in the below identified application for
United States Letters Patent:

Title: METHOD AND SYSTEM OF CLASSIFYING DEMAND DATA

Filed: _____ Serial No. _____

Executed on: August 25, August 26, August 28, 2003

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of
No.8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu,
Taiwan 300-77, R.O.C. hereinafter referred to as ASSIGNEE, is desirous of
acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters
Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for
good and valuable consideration, receipt of which is hereby acknowledged by Assignor,
Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and
transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights,
title and interest in and to the said invention and application and all future improvements
thereon, and in and to any Letters Patent which may hereafter be granted on the same in the
United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively
as it would have been held and enjoyed by said Assignor had this Assignment and transfer not
been made, to the full end and term of any Letters Patent which may be granted thereon, or of
any division, renewal, continuation in whole or in part, substitution, conversion, reissue,
prolongation or extension thereof.

Assignor further agrees/agree that he/she/they will, without charge to said
Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said
application and/or applications, execute, verify, acknowledge and deliver all such further
papers, including applications for Letters Patent and for the reissue thereof, and instruments of
assignment and transfer thereof, and will perform such other acts as Assignee lawfully may
request, to obtain or maintain Letters Patent for said invention and improvement, and to vest
title thereto in said Assignee, or Assignee's successors and assigns.

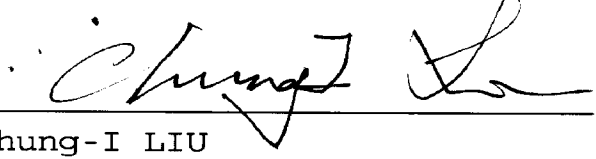
IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the
date(s) indicated.

Chi-Jung Huang
Chi-Jung HUANG


Aug. 26 2003
Date:

Fa-Liang Wang
Fa-Liang WANG

Aug 25, 2003
Date:


Chung-I LIU

Aug. 28. 2003
Date:


Ching-I YEH

Aug 26. 2003
Date: