03/10/04	
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03-19-2004



(Rev. 10/02)	U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office	
OND N. 0054 0007 (00000000)	,	
To the Honorable Commissioner of Patents and Trademarks: Please record the accorded original documents or copy thereof.		
Name of conveying part(ies):	2. Name and address of receiving party(ies)	
(1) Zhen-Cheng WU (4) Yung-Cheng LU (2) Tzu-Jen CHOU (5) Syun-Ming JANG (3) Weng CHANG (6) Mong-Song LIANG	Name: Taiwan Semiconductor Manufacturing 845/01 Street Address: No. 8, Li-Hsin Rd. 6,	
Additional name(s) of conveying party(ies) attached? ☐Yes ⊠No	Science-Based Industrial Park Hsin-Chu, Taiwan 300-77,	
3. Nature of conveyance:	R.O.C.	
☑ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other:	Additional name(s) & address(es) attached? Yes No	
Execution Date: December 4, 2003		
4. Application number(s) or patent number(s): 10/797224		
If this document is being filed together with a new application, the execution date of the application is: December 4, 2003		
A. Patent application No.(s)	B. Patent No.(s)	
Additional numbers attached? ☐ Yes ☒No		
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications/patents involved: [1]	
	7. Total fee (37 CFR 3.41) \$ 40.00	
Daniel R. McClure Thomas, Kayden, Horstemeyer & Risley, L.L.P. 100 Galleria Parkway, Suite 1750 Atlanta, Georgia 30339-5948	☐ Enclosed ☐ Authorization to charge credit card (attached)	
	8. Deposit Account Number:	
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 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 3-10-04		
Typed Name Signature Date Docket #: 252011-2000 Total number of pages including cover sheet, attachments, and document: [3]		

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

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ASSIGNMENT

Yung-Cheng LU, Syun-Ming JANG, Mong-Song LIANG 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: COPPER INTERCONNECTS Filed: Serial No. Executed on: December 4, 2003 WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park, Hein-Chu, Taiwan 300-77, R.O.C. hereinsfter 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 Assigner has 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 obtai	WHEREAS, Zhen-Cheng WU, Tzu-Jen CHOU, Weng CHANG,		
described and set forth in the below identified application for United States Letters Patent: Title:COPPER_INTERCONNECTS Filed:Serial No	Yung-Cheng LU, Syun-Ming JANG, Mong-Song LIANG		
Title: COPPER INTERCONNECTS Filed: Serial No. Executed on: December 4, 2003 WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of No. 8, Li-Hein Rd. 6, Science-Based Industrial Park, Hein-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; 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 Assignee as fully and exclusively as it would have been held and enjoyed by said 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/hav			
Filed:	described and set forth in the below identified application for United States Letters Patent:		
WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of Mo. 8, Li-Hein Rd. 6, Science-Based Industrial Park, Hein-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 application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications, execute, verify, acknowledge and deliver all such further papers, including applications, execute, verify, acknowledge 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.	Title:COPPER INTERCONNECTS		
WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of Mo. 8, Li-Hein Rd. 6, Science-Based Industrial Park, Hein-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 application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications, execute, verify, acknowledge and deliver all such further papers, including applications, execute, verify, acknowledge 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.			
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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.	Executed on: December 4, 2003		
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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. The Chang Wu Date:	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,		
Ther- Chang Wu There Chang Wu	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		
Then-Cheng√WU Date: Then then 12/4/2003			
	Zhen-Cheng Wu Date:		
ullet			

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	12/04,2003
Weng CHANG	Date:
Glay-Cl L	12/04/03
Yung-Cheng LU	Date:
Sex	12/4/03
Sym-Ming JANG	Date:
Meddenter	12/4/103
Mong-Song Liang	Date:

PATENT REEL: 015094 FRAME: 0178