FORM PTO~1595 02 - 1 1 .	-2002 SHEET U.S. DEPT. OF COMMERCE Patent and Trademark
Office	
TS01-561 101.970	
TS01-561 101976 To the Honorable Commissioner of Patents and Trademarks: Plea	series or copy thereof.
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):
CHIEN-FAN WANG	Name: Taiwan Semiconductor Manufacturing Company
Additional name(s) or conveying party(ies) attached? Yes X	Internal Address: Street Address:
3. Nature of conveyance	121 Park Ave. 3
X Assignment Merger	Science-Based Industrial Park City: Hsin-Chu Zip:
Security Agreement Change of Name	Country: Taiwan, R.O.C.
other	
Execution Date: <u>11/14/01</u>	Additional name(s) & address(es) attached? Yes X
4. Application number(s) or patent number(s):	
Additional numbers attacl	hed? $\sqrt{\text{Yes}} \sqrt{\text{No}} \left[0057491\right]$
5. Name and address of party to whom correspondence	6. Total no. of applications and patents involved:: 1
Name: GEORGE O. SAILE	7. Total fee (37 CFR 3.41): \$ 40.00
Internal Address:	
	Enclosed
Street Address: 20 MCINTOSH DRIVE	Authorized to be charged to deposit acct.
City: POUGHKEEPSIE State: NY ZIP: 12603	8 .Deposit account number: 19-0033 (Attach duplicate copy of this page if paying by deposit account)
9. Statement and signature. To the best of my knowledge and belief the foregoing information.	mation is true and correct and any attached copy is a true copy
of the original document	$\leq \mathcal{N}(\mathcal{Y})$
Name of Person Signing	Signature Date
002 MUELLER 00000117 190033 10057491	
81 40.82 CH	

PATENT REEL: 012554 FRAME: 0054

CHIEN-FAN WANG Type or print name of ASSIGNOR Address Regulation of China					
ASSIGNMENT OF INVENTION In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNOR: CHIEN-FAN WANG Type or print name of ASSIGNOR Address ASSIGNEE Taiwan Semiconductor Manufacturing Co. Ltd. 121 Park Ave. 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. Taiwan, R.O.C. Nationality and the successors, assigns and legal representatives of the ASSIGNEE (complete one of the following) X the entire right, title and interest an undivided percent (%) interest for the United States and its territorial possessions (check the following box/f foreign rights are also to be assigned) and in all foreign countries		For x U.S. and/or x Foreign Rights			
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ASSIGNOR CHIEN-FAN WANG Type or print name of ASSIGNOR Address ASSIGNEE: Taiwan Semiconductor Manufacturing Co. Ltd. 121 Park Ave. 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. Taiwan, R.O.C. Nationality and the successors, assigns and legal representatives of the ASSIGNEE (complete one of the following) the entire right, title and interest an undivided percent (%) interest for the United States and its territorial possessions (check the following countries) and in all foreign countries	ASSIGNMENT OF INVENTION				
CHIEN-FAN WANG Type or print name of ASSIGNOR Address Nationality ASSIGNEE: Taiwan Semiconductor Manufacturing Co. Ltd. 121 Park Ave. 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. Taiwan, R.O.C. Nationality and the successors, assigns and legal representatives of the ASSIGNEE (complete one of the following) X the entire right, title and interest an undivided percent (%) interest for the United States and its territorial possessions (check the following box/f foreign rights are also to be assigned) X and in all foreign countries					
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121 Park Ave. 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. Taiwan, R.O.C. Nationality and the successors, assigns and legal representatives of the ASSIGNEE (complete one of the following) x the entire right, title and interest an undivided percent (%) interest for the United States and its territorial possessions (check the following box/f foreign rights are also to be assigned) x and in all foreign countries	ASSIGNEE:				
(complete one of the following) x the entire right, title and interest an undivided percent (%) interest for the United States and its territorial possessions (check the following box/f foreign rights are also to be assigned) x and in all foreign countries	121 Park Ave. 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. Taiwan, R.O.C.	o. Ltd.			
the entire right, title and interest an undivided percent (%) interest for the United States and its territorial possessions (check the following box/f foreign rights are also to be assigned) x and in all foreign countries					
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	an undivided percent (%) (check the following box/f foreig	interest for the United States and its territorial possessions on rights are also to be assigned)			
in and to any and all improvements which are disclosed in the invention entitled:					
··· · · · · · · · · · · · · · · · ·	in and to any and all improvements which are	e disclosed in the invention entitled:			

Low Voltage Supply Band Gap Circuit At Low Power Process

PATENT REEL: 012554 FRAME: 0055

and which	ch is found in	
(a) x	U.S. patent application executed on even de	ate herewith
(b)	U.S. patent application executed on	
(c)	U.S. application serial no.	filed on
(d)	U.S. patent no.	
<u></u>		ign application(s) is also being assigned)
(e)	and any legal equivalent thereof in a foreigr	n country, including the right to clam priority
		or said invention by the above application or any distribution as to letters patent any re-issue or re-examination
	SIGNOR hereby covenants that no assignment or entered into which would conflict with this	t, sale, agreement or encumbrance has been or will assignment.
pertinen may be le proceedi any and applicati	t facts and documents relating to said invention known and accessible to ASSIGNOR and will tean related thereto and will promptly execute ar all papers, instruments or affidavits required to	will, upon its request, be provided promptly with all on and said Letters Patent and legal equivalents as stify as to the same in any interference, litigation or and deliver to ASSIGNEE or its legal representatives apply for, obtain, maintain, issue and enforce said d said equivalents thereof which may be necessary
	IESS WHEREOF, I / We have signed this (Date of Date of signing must be the same as the date of exec	signing) sution of the application if item (a) was checked above.
VVAINI	Date of signing must be the same as the same of	,
		Signature of ASSIGNOR(S)
If ASSIC	SNOR is a legal entity complete the following inform	nation
		Type or print the name of the above person authorized to sign on behalf of ASSIGNOR
		Title
		ignment is notarized or legalized then it will only be prima facie evidence (35 USC
26	ol). Use next page if notarization is desired.	Notarization of Legalization Page Added.

PATENT
RECORDED: 01/24/2002 REEL: 012554 FRAME: 0056