08-06-2002 `1FORM PTO-1595 U.S. Department of Commerce Patent and Trademark Office TI-30709 102180137 To the Ass't Commissioner for Patents. Please record the attached original documents or copy thered. 1. Name of conveying party(ies): 2. Name and Address of receiving party(ies): 1-24-02 1) Katsunobu Hirakawa (10/18/01) Name: TEXAS INSTRUMENTS INCORPORATED 2) Weifeng Joe Zhou (10/17/01) Address: P.O. Box 655474, MS 3999 3) Jay B. Reimer (10/17/01) City: Dallas State: TXZip: 75265 Additional name(s) & address(es) attached? ___ Yes _X_ No 3. Nature of Conveyance: X Assignment ____ Merger ___Security Agreement _____ Change of Name ____ Other ___ Execution Date: October 17 and 18, 2001 4. Application number(s) or patent number(s). 10,202510 X This document is being filed together with a new application. Execution date of the application: October 17 and 18, 2001 Title: Extended Dynamic Range Watchdog Timer Docket No: TI-30709 B. Patent No.(s) A. Patent Application No.(s) X,XXX,XXX S.N. Additional numbers attached? ____ Yes __X_ No Additional numbers attached? ____ Yes _X_ No 6. Number of applications and patents involved: ____(1)____ 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Robert D. Marshall, Jr. Texas Instruments Incorporated Address: P.O. Box 655474, MS 3999 Dallas City: TX Zip: 75265 State: 7. Amount of fee enclosed or authorized to be charged: \$40 8. Deposit Account No: 20-0668 (No duplicate copy is needed). DO NOT USE THIS SPACE 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.

Total Number of Pages Including Cover Sheet, Attachments and Document: $\underline{3}$

8/05/2002 GTON11 00000182 200668 10202510 0 FC:581 40.00 CH

July 24, 2002_

Date

PATENT REEL: 013142 FRAME: 0819

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and]

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with its principal office at P.O. Box 655474, MS 3999, Dallas, Texas 75265, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Ass't Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of my entire right, title and interest.

I also hereby sell and assign to TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TEXAS INSTRUMENTS INCORPORATED, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Extended Dynamic Range Watchdog Timer		
SIGNATURE OF INVENTOR AND NAME	Katsunobu Hirakawa	(2) Weifeng Joe Zhou	Jay B. Reimer
DATE	X 10/18/2001		
RESIDENCE (City, State)	19-17 Higashi-Arai, Garden Hills Tsuda 301 Tsukuba, Ibaraki 305-0033 Japan	1518 Timber Creek Dr. Missouri City, TX 77459 US	12615 Hunting Briar Houston, 77099 US
DATE APPLICATION EXECUTED	10/18/2001		

After recordation, please return Assignment to:

Robert D. Marshall, Jr.
Texas Instruments Incorporated
P.O. Box 655474, MS 3999
Dallas, TX 75265

PATENT REEL: 013142 FRAME: 0820

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and]

WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with its principal office at P.O. Box 655474, MS 3999, Dallas, Texas 75265, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Ass't Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of my entire right, title and interest.

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IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Extended Dynamic Range Watchdog Timer		
SIGNATURE OF INVENTOR AND NAME	(1) Katsunobu Hirakawa	Weifeng Joe Zhou (2)	Jay B. Reinger Bleger
DATE		x 10/17/01	X 10/17/01
RESIDENCE (City, State)	19-17 Higashi-Arai, Garden Hills Tsuda 301 Tsukuba, Ibaraki 305-0033 Japan	1518 Timber Creek Dr. Missouri City, TX 77459 US	12615 Hunting Briar Houston, 77099 US
DATE APPLICATION EXECUTED		X 10/17/01	× 10/17/01

After recordation, please return Assignment to:

RECORDED: 07/24/2002

Robert D. Marshall, Jr.
Texas Instruments Incorporated
P.O. Box 655474, MS 3999
Dallas, TX 75265

PATENT REEL: 013142 FRAME: 0821