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RE

U.S. Department of Commerce
Patent and Trademark OfficeTo the Assistant Commissioner for Patents. Please record the attached **102637494**

/ thereof.

1. Name of conveying party(ies):

Osamu Koshiba
Akira Osamoto
Satoru Yamauchi

12/23/03

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

Name: Texas Instruments Incorporated
Address: PO Box 655474, M/S 3999
City: Dallas
State: Texas
Zip: 75265Additional name(s) attached? ___ Yes X NoAdditional name(s) & address(es) attached? ___ Yes X No

3. Nature of Conveyance:

X Assignment _____ Merger
_____ Security Agreement _____ Change of Name
_____ Other _____

Execution Date: 10/15/2003

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

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

Execution date of the application: 10/15/2003

Title: Image Code Estimation

Docket: TI-34736

Filing Date: 8/1/2003

A. Patent Application No.(s)

10/633,158

B. Patent No.(s)

Additional numbers attached? ___ Yes X NoAdditional numbers attached? ___ Yes X No

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

Name: Carlton H. Hoel
Texas Instruments Incorporated
Address: PO Box 655474, M/S 3999
City: Dallas
State: Texas Zip: 752656. Number of applications and patents involved: 17. Amount of fee enclosed or authorized to be charged: **\$40**8. Deposit account number (Attach two copies of this form if paying by deposit account): **20-0668**

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.

Date

Carlton H. Hoel, Registration No. 29,934

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12/21/2003 6TOM11 00000137 200668 10633158

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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

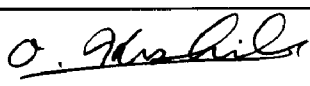
WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 7839 Churchill Way, M/S 3999, Dallas, Texas 75251, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said 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 Commissioner of Patents and Trademarks 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 hand and seal this day and year;

TITLE OF INVENTION	Image Code Estimation
SIGNATURE OF INVENTOR AND NAME	 Osamu Koshiba
DATE	10 / 15 / 2003
RESIDENCE (CITY AND STATE)	Tsukuba, Ibaraki, Japan
DATE APPLICATION EXECUTED	10 / 15 / 2003

TITLE OF INVENTION	Image Code Estimation
SIGNATURE OF INVENTOR AND NAME	 Akira Osamoto
DATE	10/15/2003
RESIDENCE (CITY AND STATE)	Inashiki, Ibaraki, Japan
DATE APPLICATION EXECUTED	10/15/2003

TITLE OF INVENTION	Image Code Estimation
SIGNATURE OF INVENTOR AND NAME	 Satoru Yamauchi
DATE	10/15 '03
RESIDENCE (CITY AND STATE)	Tsuchiara, Ibaraki, Japan
DATE APPLICATION EXECUTED	10/15 '03

After recording, return Assignment to:

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