

07-20-1999



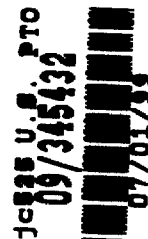
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DOCKET NO. 99-013

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicants: Farshad Ghahghahi

Assignee: LSI LOGIC CORPORATION

Title: ROUTING DENSITY ENHANCEMENT FOR SEMICONDUCTOR
BGA PACKAGES AND PRINTED WIRING BOARDS

Serial No.: Unknown

Filed: July 1, 1999.

Group Art Unit: Unknown

Attorney Docket No. 99-013

Examiner: Unknown

Date: July 1, 1999.

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Honorable Commissioner
of Patents and Trademarks
Washington, DC 20231

Sir:

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Farshad Ghahghahi

Date of Execution: June 30, 1999.

07/15/1999 TRADE1 00000027 122252 09345432
02 FC:581 40.00 CH

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

LSI Logic Corporation
1551 McCarthy Boulevard
Milpitas, California 95035
U.S.A.

3. Nature of conveyance: Assignment

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: July 1, 1999.

A. Patent Application Serial Number: _____

B. Patent Number: _____

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

Bruce Hopenfeld, Patent Attorney
Intellectual Property Law Department
LSI Logic Corporation
M/S D-106
1551 McCarthy Boulevard
Milpitas, California 95035
U.S.A.

6. Total number of applications and patents involved: 1.

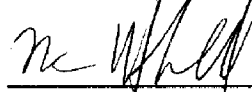
7. Total fee (37 CFR 3.41): \$40.00.

8. Attached is a check in the amount of \$_____.

Charge Deposit Account No. 12-2252 in the amount of \$ 40.00.

(A duplicate copy of this document is enclosed.)

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.



7/1/99

Bruce Hopenfeld

Reg. No. 39,714

10. Total number of pages including cover sheet, attachments and document: 3.

Docket No.: 99-013

PATENT

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/WE, the undersigned, Farshad Ghahghahi, do hereby sell, assign, and transfer to: LSI LOGIC CORPORATION, a corporation of Delaware, having a place of business at 1551 McCarthy Boulevard, Milpitas, California 95035, ("Assignee"), its successors, assigns, and legal representatives, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and improvements which are disclosed in the application for United States Letters Patent,

- (X) which has been executed by the undersigned concurrently herewith,
 () which was filed on _____ 19____ and assigned Serial No. _____.

and is entitled: "ROUTING DENSITY ENHANCEMENT FOR SEMICONDUCTOR BGA PACKAGES AND PRINTED WIRING BOARDS" and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application; and

Agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to the undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications to patents and all patents on said improvements, in said Assignee, its successors, assigns and legal representatives; and

Covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Name: Farshad Ghahghahi Date: June 30, 1999 Witness: [Signature]
 Farshad Ghahghahi
 Witness: Leticia Rosenthal
 Printed

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