

11/12/04

11-23-2004

FORM PTO-1595

RF



U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

To the Honorable Commissioner of Pat. **102887966**  
Please record the attached original documents or copy thereof.

22264 U.S. PTO  
10/987783

1. Name of conveying party(ies):  
  
Won-sik Kang;  
Jae-koo Lee; and  
Jae-hoon Lee  
  
Additional name(s) of conveying party(ies) attached?  
 YES  NO

2. Name and address of receiving party(ies):  
Name:  
  
Samsung Electronics Co., Ltd.  
  
Internal Address:  
  
Street Address:  
San #16 Banwol-Ri, Taean-Eup  
  
City: Hwasung-City  
  
State: Gyeonggi-Do  
  
Country/Zip: KOREA 445-701  
  
Additional name(s) & address(es) attached?  
 YES  NO

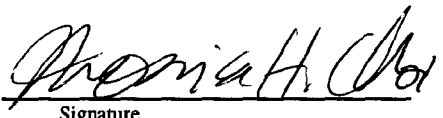
3. Nature of conveyance:  
  
 Assignment  Merger  
  
 Security Agreement  Change of Name  
  
 Other \_\_\_\_\_  
  
Execution Date: November 3, 2004

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: November 3, 2004  
  
A. Patent Application No.(s):  
(include series code or filing date)  
  
B. Patent No.(s):  
  
Additional application or patent numbers attached?  YES  NO

5. Name and address of party to whom correspondence concerning document should be mailed:  
Name: Monica H. Choi  
Law Office of Monica H. Choi  
Address: P.O. Box 3424  
City: Dublin  
State: Ohio Zip: 43016-0204

6. Total number of applications and patents involved: 1  
  
7. Total Fee (37 CFR 3.41) . . . . . \$ 40.00  
 Enclosed  Authorized to charge Deposit Account 50-1178  
  
8. Should any fee adjustment be necessary to effect proper recordation, please debit or credit our Deposit Account No. \_\_\_\_\_, as necessary.

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.  
  
Monica H. Choi, Reg. No. 41,671  November 12, 2004  
Name of Person Signing Signature Date

Atty. Docket No.: 04-19

Total number of pages including cover sheet, attachments and document: Three (3)

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PATENT  
REEL: 015999 FRAME: 0584

**ASSIGNMENT**

Inventor(s): **Kang, Lee, and Lee**  
 Date of Execution  
 of Application: \_\_\_\_\_

Serial No.: \_\_\_\_\_  
 Filing Date: \_\_\_\_\_

In consideration of One Dollar (\$1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to:

**SAMSUNG ELECTRONICS CO., LTD,**  
**a corporation having a primary place of business in**  
**Suwon-si, Gyeonggi-do, Republic of Korea**

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

**DISPLAY DRIVER WITH CHARGE PUMPING SIGNALS  
 SYNCHRONIZED TO DIFFERENT CLOCKS FOR MULTIPLE MODES**

and identified as:

**Case No. 04-19**

in the Law Office of Monica H. Choi and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignees the priority right provided by the International Convention.

The undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignees.

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrants himself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agrees, upon the request and at the expense of said assignees, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignees, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorize said assignees to apply for patents for said invention

or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of said assignees, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignees, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vests all rights therein hereby conveyed in the assignees, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignees, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

WON-SIK KANG  
WON-SIK KANG

NOV. 3. 2004  
DATE

JAE-KOO LEE  
JAE-KOO LEE

NOV. 03 2004  
DATE

JAE-HOON LEE  
JAE-HOON LEE

NOV. 3 2004  
DATE