


Client Code: SMDKS.005AUS

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<p>1. Name of conveying party:</p> <p>1. Moon-Sang Hwang 2. Won-Jun Choe 3. Han-Kyu Chi 4. Deog-Kyoon Jeong</p> <p>Additional name(s) of conveying party(ies) attached? () Yes (X) No</p>	<p>2. Name and address of receiving party:</p> <p>Name: Samsung Mobile Display Co., Ltd. Street Address: San #24, Nongseo-dong, Giheung-gu City: Yongin-city, Gyunggi-do Country: Republic of Korea</p> <p>Additional name(s) of receiving party(ies) attached? () Yes (X) No</p>
<p>3. Nature of conveyance:</p> <p>(X) Assignment () Security Agreement () Merger () Change of Name</p> <p>Execution Date:</p> <p>1. December 20, 2011 2. December 21, 2011 3. December 14, 2011 4. December 13, 2011</p>	<p>4. US or PCT Application number(s) or US Patent number(s):</p> <p>(X) Patent Application No.: 13/398245 Filing Date: February 16, 2012</p> <p>Additional numbers attached? () Yes (X) No</p>
<p>5. Party to whom correspondence concerning document should be mailed:</p> <p>Customer No. 20,995</p> <p>Address: Knobbe, Martens, Olson & Bear, LLP 2040 Main Street, 14th Floor Irvine, CA 92614</p> <p>Return Fax: (949) 760-9502</p> <p>Attorney's Docket No.: SMDKS.005AUS</p>	<p>6. Total number of applications and patents involved: 1</p>
<p>7. Total fee (37 CFR 1.21(h)): \$40</p> <p>(X) Authorized to be charged to deposit account</p>	<p>8. Deposit account number: 11-1410</p> <p>Please charge this account for any additional fees which may be required, or credit any overpayment to this account.</p>
<p>9. Statement and signature.</p> <p>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.</p> <p><u>John M. Carson</u> Name of Person Signing</p> <p>34,303 Registration No.</p> <p> Signature</p> <p><u>2/16/12</u> Date</p> <p>Total number of pages including cover sheet, attachments and document: 3</p>	

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PATENT

Application No.: Unknown
Filing Date: Herewith

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ASSIGNMENT

WHEREAS, I, the undersigned, have invented certain new and useful improvements in a **COARSE LOCK DETECTOR AND DELAY-LOCKED LOOP INCLUDING THE SAME**, the specification of which was executed on even date herewith.

AND WHEREAS, Samsung Mobile Display Co., Ltd. (hereinafter "ASSIGNEE"), with its principal place of business at Sam #24 Nongseo-Dong, Gyeong-Gu, Yongin-City, Gyeonggi-Do, 446-711 Republic of Korea, desires to acquire the entire right, title, and interest in and to the said improvements with respect to the United States of America, its territories and possessions.

NOW, THEREFORE, in light of good and valuable consideration, the receipt of which is hereby acknowledged, I, the said inventor, do hereby acknowledge that I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional applications relating thereto, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I HEREBY covenant and agree that I will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to me respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

Date: 12-20-2011

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Date: 12-21-2011

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Application No. Unknown
Filing Date: Unknown

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