Docket No.: SEC.1922 FORM PTQ-1595 (Modified) U.S. DEPARTMENT OF COMMERCE 02-05-2007 (Rev. 03-01) Patent and Trademark Office OMB No. 0651-0027 (exp.5/31/2002) P08A/REV03 Tab settings → → 103369891 To the Director of the United States Pate attached original documents or copy thereof. 2. Name and address of receiving party(ies): Name of conveying party(ies): Ji-young LEE Hak-sun LEE Name: Samsung Electronics Co., Ltd. Myeong-cheol KIM 416, Maetan-dong, Yeongtong-gu, Suwon-si Address: **Kyung-yub JEON** Additional names(s) of conveying party(ies) ☐ Yes ☒ No 3. Nature of conveyance: ☑ Assignment Merger City: Gyeonggi-do Change of Name ☐ Security Agreement State/Prov.: Republic of Korea ☐ Other Country: ZIP: Execution Date: January 23, 2007 Additional name(s) & address(es) ☐ Yes ⊠ No 4. Application number(s) or patent numbers(s): If this document is being filed together with a new application, the execution date of the application is: January 23, 2007 Patent Application No. Filing date B. Patent No.(s) **NEW** January 30, 2007 ☐ Yes ☒ No Additional numbers 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: concerning document should be mailed: Name: STEPHEN R. WHITT 7. Total fee (37 CFR 3.41):....\$ 40.00

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ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned Insert 7. Name(s) of 1. Ji-young LEE Inventor(s) 2. Hak-sun LEE 8. 3. Myeong-cheol KIM 9. Kyung-yub JEON 10. the undersigned hereby sell(s) and assign(s) to Insert Name(s) of SAMSUNG ELECTRONICS CO., LTD. Assignee(s) & 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea Address(es) of (hereinafter designated as the Assignee) the entire right, title and interest for the United States as defined in 35 USC 100, in the invention known as Title of METHOD OF FORMING PATTERN USING FINE PITCH HARD MASK Invention for which an application for patent in the United States of America has been executed by Date of Signing of Application the undersigned on January 23, 2007 The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient. The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuing, division or

reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

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The undersigned hereby grant(s) the practitioners associated with the <u>CUSTOMER NUMBER 20987</u> the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignce, as Assignce of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

Date .low	. 23. 2007	Signature of Inventor	Ji-young Lee
DAILE HOW	<u> </u>	_ Signature of threshol	Ji-young LEE
Date Jan	1. 23,2007	Signature of Inventor	Mak-ain LEE
Date Jn	~. > 3, 2007	Signature of Inventor	Myeong-Challe
.Datc	···	Signature of Inventor	Kyung-yub JEON
Date Jan	1.27, 2007	Signature of Inventor	- grows
Date		_ Signature of Inventor	
(Na witi	ressed by at least tw	o witnesses who sign here	I that the execution by the Inventor(s) be to the U.S. However, the current practice of the U.S. gnment even it has not been witnessed.)
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