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U.S. PTO 12/149947 05/09/2008

Atty. Docket No.: 15230-000006/U!

Page 1 of

401 Dulany Street Alexandria, VA 22314	21 - 2008	:		
	SHEET			
10 the Honorable Comm	missioned and Trademarks: ed original documents or copy thereof.	آھ ۔ نځ		
1. Name of conveying party(ies):	2. Name and address of receiving party(ies)			
Junhee CHOI and	Name: Samsung Electronics Co., Ltd.	Name: Samsung Electronics Co., Ltd.		
Andrei ZOULKARNEEV	Street Address: 416 Maetan-dong, Yeongtong-gu			
Additional name(s) of conveying party(ies) attached? YES NO	City: Suwon-si State: Gyeonggi-do	**		
3. Nature of conveyance:	Country: Republic of Korea			
Assignment	Additional name(s) & address(es) attached? YES NO			
Execution Date: 5/2/2008 and 5/2/2008		. .		
 Application number(s) or patent number(s): If this document is being filed together with a new application 	ation, the execution date of the application is: 5/2/2008 and 5/2/200	8(
A. Patent Application No(s).	B. Patent No.(s).			
Additional number		·		
Name and address of party to whom correspondence concerning document should be mailed:	6. Total No. of applications/patents involved: One (1) 7. Total fee (37 C.F.R. § 3.41): \$40.00			
Name: HARNESS, DICKEY & PIERCE, P.L.C.	Enclosed			
Street Address: P.O. BOX 8910 City: RESTON State: VA ZIP: 20195	Authorized to be charged to deposit account, if no fee attached.	<i>,</i> .		
Country: USA	8. Deposit account number: 08-0750	·		
Country. USA	(Attach triplicate copy of this page if paying by deposit account)			
DO NO	OT USATHIS SPACE			
9. Statement and signature. To the best of my knowledge and belief, the foreg copy of the original document. John A. Castellano, #35,094 Name of Person Signing/Reg. No.	going information is true and correct and any attached copy is a true May 9, 2008 Signature Date			
Total number of pages includ	ling cover sheet, attachments, and document:			

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PATENT REEL: 020985 FRAME: 0461 U.S. PTO 12/149947 05/09/2008

Atly. Docket No. :

ASSIGNMENT

WHEREAS, the undersigned hereinafter referred to collectively as Assignor, has invented:

MICRO-HEATERS, MICRO-HEATER ARRAYS, METHODS FOR MANUFACTURING THE SAME AND ELECTRONIC DEVICES USING THE SAME

for which Assignor is about to make or has made United States or International application for patent

(8)		executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
(b)		executed on,; or
(c)		filed on, and assigned Serial No or PCT International Application No;
(d)		U.S. Patent No, issued; and
ві, Сувоп	HEREAS, 3 ggi-do, Re an interest	Sameung Electronics Co., Ltd., 416, Maetan-dong, Yeongtong-gu, Suwon- public of Korea, and hereinafter referred to as Assignee, is desirous of therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are grantled and any extensions thereof as fully and entirely as the same would have been held by Assigner had this assignment and sale not been made, and the right to recover for past infringements of, or ilabilities for, any of the rights relating to any of said applications or patents-resulting therefrom;

Assignor hereby covenants and agrees to execute all Instruments or documents required or requested for the making and prosecution of any applications of any type for patent in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation then that above set forth;

Assignor hereby covertants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Cartificate to Assignee.

The undersigned hereby grant(e) the law firm of Hamess, Dickey & Pierce, P.L.C. 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 U.S. Patent and Trademark Office for recordation of this document.

Page 1 of 2

REEL: 020985 FRAME: 0462

Atty. Docket No.:

ASSIGNMENT

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Dated May 2, 200

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Page 2 of 2

PATENT REEL: 020985 FRAME: 0463

RECORDED: 05/09/2008