103270181 Attorney Docket No.: 2101-3228 To the Assistant Commissioner for Patents: Please record the attached original documents or copy thereof. Name of conveying party(ies): Name and address of receiving party(ies): Yong-Ho KIM, Jin LEE and Yong-Won KWAK LG ELECTRONICS INC. Additional name(s) of conveying party(ies) attached?

Yes

No 20, Yoido-dong, Youngdungpo-gu Seoul, Korea Nature of conveyance: Assignment Merger Security Agreement Change of Name Additional name(s) & address(es) attached? ☐ Yes ☒ No Execution Date: June 14, 2006, June 14, 2006 and June 16, 2006 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: A. Patent Application No.(s) 11/388,412 B. Patent No.(s) Additional numbers attached?

Yes ⊠ No Name and address of party to whom correspondence concerning 6. Total number of applications and patents involved: document should be mailed: JONATHAN Y. KANG, ESQ. 7. Total fee (37 CFR 3.41) \$40 LEE, HONG, DEGERMAN, KANG & SCHMADEKA 801 S. Figueroa Street 12th Floor Authorized to be charged to deposit account Los Angeles, CA 90017 Phone: (213) 623-2221 Fax: (213) 623-2211 Deposit account number: 502290 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true copy of the original document. July 3, 2006 LEW EDWARD V. MACAPAGAL, REG. NO. 55,416 OMB No. 0651-0011 (exp. 4/94) Mail documents to be recorded with required cover sheet information to: Mail Stop Assignment Recordation Services Director of the U.S. Patent and Trademark Office

> P.O. Box 1450 Alexandria, VA 22313-1450

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PATENT REEL: 018058 FRAME: 0498

ASSIGNMENT

(1-8)	Insert Name(s) of Inventor(s)	(1) Yong-Ho KIM (5)						
		(2) Jin LEE (6)						
		(3) Yong-Won KWAK (7)						
		(4)						
		In consideration of the sum of one dollar (\$1.00) and other good and valuable considerations paid to each of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over to						
(9)	Insert name of Assignee	(9) LG Electronics Inc.						
(10)	Insert state of Incorporation of Assignee	(10) Republic of Korea						
(11)	Insert address of Assignee	(11) 20, Yoido-dong, Youngdungpo-gu						
		Seoul, Korea						
		(hereinafter designated as the Assignee) the entire worldwide right, title and interest in the invention known as						
(12)	Insert identification of Invention, such as Title, Case Number or							
	Foreign Application Number	(Application Serial No. 11/388,412)						
		for which the undersigned has (have) executed an application for patent in the United States of America and all patent applications in foreign countries corresponding thereto or based thereon.						
(13)	Insert Date of Signing of Application	(13) June 14, 2006						
and o	continuing United States and	gree(s) to execute all papers necessary in connection with any original, reissue, divisional foreign applications for the above-identified invention and also to execute separate applications as the Assignee may deem necessary or expedient.						
deciar in obta	The undersigned a red concerning this application of aining evidence and going forward.	gree(s) to execute all papers necessary in connection with any interference which may be or continuation or division thereof and to cooperate with the Assignee in every way possible and with such interference.						
in con	The undersigned a nection with claims or provision	gree(s) to execute all papers and documents and perform any act which may be necessary s of the International Convention for Protection of Industrial Property or similar agreements.						
United	The undersigned a States patent to the Assignee.	gree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid						
said A	ts of the United States resulting assignee, as Assignee of the east herein assigned, and that he	ereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters from said application or any division or divisions or continuing applications thereof to the natire interest, and hereby covenants that he has (they have) full right to convey the entire has (they have) not executed any agreement in conflict herewith. the attorneys associated with Customer No. 035884.						
	with the rules of the United S	ssignment any further identification which may be necessary or desirable in order to comply states Patent and Trademark office for recordation of this document.						
Date:	ate: Sure 14. 2001 Signature of Inventor Jonglo Cin							
Date:	ate: June 14, 2006 Signature of Inventor + L							
Date:	Signa	ture of Inventor						
Date:	ate: Signature of Inventor							

PATENT REEL: 018058 FRAME: 0499

ASSIGNMENT

(1-8)	Insert Name(s) of Inventor(s)		ong-Ho KIM	(5)			
		(2) J	in LEE	(6)			
			ong-Won KWAK	(7)			
		(4)		(8)			
			considerations paid t	e sum of one dollar (\$1.00) and other good a o each of the undersigned, the undersigned pes assign, transfer and set over to	nd valuable agree(s) to		
(9)	Insert name of Assignee	(9)	LG Electronics Inc.				
(10)	Insert state of incorporation of Assignee	(10)	Republic of Korea				
(11)	Insert address of Assignee	(11)	20, Yoido-dong, Your Seoul, Korea	gdungpo-gu			
		(here	einafter designated as t evention known as	he Assignee) the entire worldwide right, title an	d interest in		
(12)	Insert identification of Invention, such as Title, Case Number or	(12)	METHOD OF SUPPO ACCESS SYSTEM	RTING SLEEP MODE IN BROADBAND WIRE	ELESS		
	Foreign Application Number		(Application Serial N	o. 11/388,412)			
		•	for which the undersiq United States of Amer corresponding thereto	ned has (have) executed an application for partica and all patent applications in foreign countries or based thereon.	tent in the ies		
(13)	Insert Date of Signing of Application	(13)	June 16, 2006				
and d	The undersigned agree continuing United States and fo nments in connection with such ap	reign -	applications for the a	cessary in connection with any original, reissu bove-identified invention and also to execu ly deem necessary or expedient.	e, divisional te separate		
declar	The undersigned agreed concerning this application or calcing evidence and going forward.	xontinu	ation or division thereo	cessary in connection with any interference wife and to cooperate with the Assignee in every warms.	hich may be vay possible		
in con	The undersigned agreence on with claims or provisions of the control of the	e(s) to f the li	execute all papers and temational Convention	d documents and perform any act which may be for Protection of Industrial Property or similar a	e necessary agreements.		
United	The undersigned agree States patent to the Assignee.	e(s) to	perform all affirmative	acts which may be necessary to obtain a gra	nt of a valid		
said A interes	ts of the United States resulting fr	om sa e inter s (they	id application or any di est, and hereby coven have) not executed an	 the Commissioner of Patents to issue any anvision or divisions or continuing applications that the has (they have) full right to convey agreement in conflict herewith. ith Customer No. 035884. 	ereof to the		
	the power to insert on this assignith the rules of the United State	nmen les Pai	t any further identificati ent and Trademark Off	on which may be necessary or desirable in ordelice for recordation of this document.	er to comply		
Date:	Signatur	e of In	ventor				
Date:	Signature of Inventor						
Date:	16, JUNE 2006 Signatur	e of In	ventor				
Date:	Signatur	e of In	ventor				

PATENT REEL: 018058 FRAME: 0500

RECORDED: 07/05/2006