501773311 12/30/2011

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Eunkyung KIM	12/20/2011
Jae Sun CHA	12/20/2011
Soojung JUNG	12/20/2011
JuHee KIM	12/21/2011
Kwang Jae LIM	12/20/2011
Hyun LEE	12/20/2011
Won-lk KIM	12/20/2011
Sung Cheol CHANG	12/20/2011
Chul Sik YOON	12/20/2011
Namgi KIM	12/20/2011

RECEIVING PARTY DATA

Name:	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE
Street Address:	161, Gajeong-dong, Yuseong-gu
City:	Daejeon
State/Country:	REPUBLIC OF KOREA
Postal Code:	305-350

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13381900

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Rabin & Berdo, P.C.

PATENT

REEL: 027467 FRAME: 0101

OP \$40.00 13381900

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Address Line 1: 1101 14th St., N.W., Suite 500 Address Line 4: Washington, DISTRICT OF COLUMBIA 20005 ATTORNEY DOCKET NUMBER: PAN-117NP NAME OF SUBMITTER: Steven M. Rabin Total Attachments: 9 source=PAN-117NP-Assignment#page1.tif source=PAN-117NP-Assignment#page2.tif source=PAN-117NP-Assignment#page3.tif source=PAN-117NP-Assignment#page4.tif source=PAN-117NP-Assignment#page5.tif source=PAN-117NP-Assignment#page6.tif source=PAN-117NP-Assignment#page7.tif source=PAN-117NP-Assignment#page8.tif source=PAN-117NP-Assignment#page9.tif

> PATENT REEL: 027467 FRAME: 0102

IP20	109	0956A	Par

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-1	71	17

Attorney Reference _____

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Kim, Eunkyung of 307-701, Songlim maeul Apt., Hagi-dong, Yuseong-gu, Daejeon, 305-759, Republic of Korea; CHA, Jae Sun of 703-402, Banseok maeul Apt., Banseok-dong, Yuseong-gu, Daejeon 305-150, Republic of Korea; JUNG, Soojung of 705-401, 7-danji APT, 892, Gwanpyeong-dong, Yuseong-gu, Daejeon 305-509, Republic of Korea; KIM, JuHee of 108-803, Lucky Hana Apt. Sinseong-dong, Yuseong-gu, Daejeon, Republic of Korea; LIM, Kwang Jae of 612-901, Unamneomia Apt., Gyuanpyeong-dong, Yuseong-gu, Daejeon 305-746, Republic of Korea; Lee, Hyun of 102-605, Saejong Apt., Jeonmindong, Yuseong-gu, Daejeon 305-790, Republic of Korea; KIM, Won-Ik of 709-602, Yeolmae Maeul 7 Danji, Jijok-dong, Yuseong-gu, Daejeon 305-770, Republic of Korea; Chang, Sung Cheol of 309-901, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761, Republic of Korea; Yoon, Chul Sik of 4-402, Samik Sunkyung Apt., Hagye 1-dong, Nowon-gu, Seoul 139-777, Republic of Korea; KIM, Namgi of 533-1204, Sinnamusil Apt., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-727, Republic of Korea

hereinafter referred to collectively as the assignor, has invented a certain improvement relating to

METHOD FOR OPERATION OF FEMTO BASE STATION BASED ON RADIO ACCESS SYSTEM,

[] the inventor(s) declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office;
[] said application having been filed in the United States Patent and Trademark Office on, authorization being hereby given to my attorneys, Steven M. Rabin, Robert H.
Berdo, Jr., Phillip G. Avruch, and Allen Wood of RABIN & BERDO, P.C., 1101 14th Street, N.W.,
Washington, D.C. 20005, to insert here in parentheses (Application Serial No) the
application serial number of said application when known;
[X] the specification of which was filed under the Patent Cooperation Treaty on July 2, 2010,
Serial No. PCT/KR2010/004336 , the United States of America being designated.
AND WHEREAS ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE of
161, Gajeong-dong, Yuseong-gu, Daejeon 305-350, Republic of Korea, hereinafter referred to as the
assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any
and all divisions and continuations thereof, and in and to said invention and any and all patents which may
be granted therefor, including any and all renewals, reissues and prolongations thereof;
NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assigner, the receipt of which is hereby acknowledged, said assigner hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT Page 2 of 2

	EXECUTED, this day of	, 2011
WITNESSE: Signature: Name:		ASSIGNOR: Signature WMCYUMO Name: Kim, Eunkyupg
WITNESSE: Signature: Name:		ASSIGNOR: Signature
WITNESSE: Signature: Name:		ASSIGNOR: Signature July July Name: JUNG, Soojung
WITNESSE: Signature: Name:		ASSIGNOR: Signature Name:KIM, JuHee
WITNESSE: Signature: Name:		ASSIGNOR: SignatureKwangSuc Name:LIM, Kwang Jae
<i>WITNESSE:</i> Signature: Name:		ASSIGNOR: Signature 1944 Lec. Hyun
<i>WITNESSE:</i> Signature: Name:		ASSIGNOR: Signature

WITNESSE:	ASSIGNOR:
Signature:	Signature
Name:	Name: Chang, Sung Cheol
WITNESSE:	ASSIGNOR: YOON, CHURIC
Signature:	Signature \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Name:	Name: Yoon, Chul Sik
WITNESSE:	ASSIGNOR:
Signature:	Signature
Name:	Name: KIM, Namgi

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Attorney Reference

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Kim, Eunkyung of 307-701, Songlim maeul Apt., Hagi-dong, Yuseong-gu, Daejeon, 305-759, Republic of Korea: CHA, Jae Sun of 703-402, Banseok maeul Apt., Banseok-dong, Yuseong-gu, Daejeon 305-150, Republic of Korea: JUNG, Soojung of 705-401, 7-danji. APT, 892, Gwanpyeong-dong, Yuseong-gu, Daejeon 305-509, Republic of Korea; KIM, JuHee of 108-803, Lucky Hana Apt. Sinseong-dong, Yuseong-gu, Daejeon, Republic of Korea; LIM, Kwang Jae of 612-901, Unamneomia Apt., Gyuanpyeong-dong, Yuseong-gu, Daejeon 305-746, Republic of Korea; Lee, Hyun of 102-605, Saejong Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-390, Republic of Korea; KIM, Won-Ik of 709-602, Yeolmae Maeul 7 Danji, Jijok-dong, Yuseong-gu, Daejeon 305-770, Republic of Korea; Chang, Sung Cheol of 309-901, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761, Republic of Korea; Yoon, Chul Sik of 4-402, Samik Sunkyung Apt., Hagye 1-dong, Nowon-gu, Seoul 139-777, Republic of Korea; KIM, Namgi of 533-1204, Sinnamusil Apt., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-727, Republic of Korea

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[X] the inventor(s) declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office;
1 said application having been filed in the United States Patent and Trademark Office on
, authorization being hereby given to my attorneys, Steven M. Rabin, Robert H.
Berdo, Jr., Phillip G. Avruch, and Allen Wood of RABIN & BERDO, P.C., 1101 14th Street, N.W., Washington,
D.C. 20005, to insert here in parentheses (Application Serial No) the application serial
number of said application when known;
[] the specification of which was filed under the Patent Cooperation Treaty on,
Serial No, the United States of America being designated.
AND WHEREAS ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE of 161.
Gajeong-dong, Yuseong-gu, Daejeon 305-350, Republic of Korea, hereinafter referred to as the assignee,
is desirous of acquiring the entire right, title and interest in and to said application, including any and all
divisions and continuations thereof, and in and to said invention and any and all patents which may be
granted therefor, including any and all renewals, reissues and prolongations thereof;
NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and
valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged,
said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and
assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions
and continuations thereof, and in and to said invention and any and all patents which may be granted therefor,
including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's
successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions
and continuations thereof, and the said invention and any and all patents which may be granted therefor,

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

made.

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT Page 2 of 2

	EXECUTED, this _	day of _	December	, 2011
WITNESSE:			ASSIGNOR:	
Signature:			Signature	/
Name:			Name:	Kim, Eunkyung
WITNESSE:			ASSIGNOR:	
Signature:				
Name:			Name:	CHA, Jae Sun
WITNESSE:			ASSIGNOR:	
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Name:			Name:	JUNG, Sociung
WITNESSE:			ASSIGNOR:	
Signature:				1 A A LA LEW AVERTINE TO .
Name:			Name:	KIM, JuHee
WITNESSE:			ASSIGNOR:	
Signature:				
Name:			Name:	LIM, Kwang Jae
WITHERE.			ASSIGNOR:	
WITNESSE:				
Signature:			•	Lee, Hyun
Name:			Menie,	In VI (17 VIII
WITNESSE:			ASSIGNOR:	
Signature:			Şignature	
Name:				KIM, Won-IK

WITNESSE:	ASSIGNOR:
Signature:	Signature
Name:	Name: Chang, Sung Cheol
WITNESSE:	ASSIGNOR:
Signature:	Signature
Name:	Name: Yoon, Chul Sik
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WITNESSE:	ASSIGNOR:
Signature:	Signature Minange
Name:	Name: KIM, Namgi '

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Attorney	Reference	

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Berdo, Jr., Phillip G. Avruch, and Allen Wood of RABIN & BERDO, P.C., 1101 14th Street, N.W.,
Washington, D.C. 20005, to insert here in parentheses (Application Serial No) the
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Serial No. PCT/KR2010/004336, the United States of America being designated.
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assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any
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NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

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AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT Page 2 of 2

	EXECUTED, this _	21st day	ofDecember	, 2011
WITNESSE:			ASSIGNO	R:
Signature:				vice reconstitute of the second secon
Name:				Kim, Eunkyung
WITNESSE:			ASSIGNOI	₹:
Signature:			Signature _	And Control of Control
Name:				CHA, Jae Sun
WITNESSE:			ASSIGNOI	R:
Signature:			Signature _	
Name:			Name:	JUNG, Soojung
WITNESSE:			ASSIGNO	9: 1/2/4 5111E/2
Signature:			Signature _	" KIM SUHE
Name:			Name:	KIM, JuHee
WITNESSE:			ASSIGNO	₹:
Signature:			Signature _	
Name:			Name:	LIM, Kwang Jae
WITNESSE:			ASSIGNOI	₹:
Signature:			Signature _	
Name:				Lee, Hyun
WITNESSE:			ASSIGNOI	₹:
Signature:			Signature _	
Name:			Name:	

RABIN & BERDO, P.C., Washington, D.C.

PATENT REEL: 027467 FRAME: 0110

WITNESSE:	ASSIGNOR:
Signature:	Signature
Name:	Name: Chang, Sung Cheol
WITNESSE:	ASSIGNOR:
Signature:	Signature
Name:	Name: Yoon, Chul Sik
WITNESSE:	ASSIGNOR:
Signature:	Signature
Name:	Name: KIM, Namgi

RABIN & BERDO, P.C., Washington, D.C.

RECORDED: 12/30/2011

PATENT REEL: 027467 FRAME: 0111