PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Osok Song	05/20/2011
Aleksandar Damnjanovic	05/18/2011
Tingfang Ji	05/24/2011
Taesang Yoo	06/01/2011
Parag Arun Agashe	05/16/2011
Madhavan Srinivasan Vajapeyam	05/20/2011
Yongbin Wei	07/18/2011
Tao Luo	06/21/2011
Rajat Prakash	05/17/2011
Masato Kitazoe	05/16/2011

RECEIVING PARTY DATA

Name:	QUALCOMM Incorporated			
Street Address:	775 Morehouse Drive			
City:	San Diego			
State/Country:	CALIFORNIA			
Postal Code:	92121			

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13085373

CORRESPONDENCE DATA

Fax Number: (858)658-2502

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Email: us-docketing@qualcomm.com Correspondent Name: QUALCOMM Incorporated Address Line 1: 5775 Morehouse Drive

Address Line 4: San Diego, CALIFORNIA 92121

PATENT

REEL: 026637 FRAME: 0352

501604071

ATTORNEY DOCKET NUMBER:	101642				
NAME OF SUBMITTER: Gayle Gestick					
Total Attachments: 32					
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ASSIGNMENT

WHEREAS, WE,

- 1. Osok Song, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 2. Aleksandar Damnjanovic, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Del Mar, CA,
- 3. Tingfang Ji, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 4. Taesang Yoo, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 5. Parag Arun Agashe, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 6. Madhavan Srinivasan Vajapeyam, a citizen of Brazil, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 7. Yongbin Wei, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 8. Tao Luo, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 9. Rajat Prakash, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of La Jolla, CA,
- 10. Masato Kitazoe, a citizen of Japan, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Tokyo, Japan,

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to RESOURCE PARTITIONING INFORMATION FOR ENHANCED INTERFERENCE COORDINATION (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-

1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States. including but not limited to U.S. Application No(s). 13/085,373 filed April 12, 2011, Docket No. 101642, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/323,756. 2010, Docket No. filed April 13, with U.S. Provisional Application No(s). 61/387,878, filed September 29, 2010, Docket No. 101642P2, with U.S. Provisional Application No(s). 61/387,886, filed September 29, 2010. Docket No. 103029P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States:

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

AND WE DO 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 or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies

arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

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Done at	San Diego, CA	on	5/20/2011 DATE	100
	LOCATION		DATE	Osok Song
n.				
Done at		on		
	LOCATION		DATE	Aleksandar Damnjanovic
Done at	.•	on		
- To - Tu	LOCATION	,	DATE	Tingfang Ji
Done at	,	on		
	LOCATION		DATE	Taesang Yoo
Done at		ón		
120110 111	LOCATION		DATE	Parag Arun Agashe
Done at	Con Diese.	. on	5/20/2011 DATE	Madhayan Sriniyasan Vajaneyan
20110 41	LOCATION		DATE	Madhavan Srinivasan Vajapeyam

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Done at		, on			
	LOCATION		DATE	Yongbin Wei	
Done at_		_, on _			
	LOCATION		DATE	Tao Luo	
Done at _	San Diepo	_, on _	May 17, 2011 DATE	Rojot Probab	
	LOCATION		DATE	Rajat Prakash	
Done at		, on			
	LOCATION		DATE	Masato Kitazoe	

ASSIGNMENT

WHEREAS, WE,

- 1. Osok Song, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
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- 5. Parag Arun Agashe, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
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- 8. Tao Luo, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 9. Rajat Prakash, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of La Jolla, CA,
- 10. Masato Kitazoe, a citizen of Japan, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Tokyo, Japan,

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to RESOURCE PARTITIONING INFORMATION FOR ENHANCED INTERFERENCE COORDINATION (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-

1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, including but not limited to U.S. Application No(s). 13/085,373 filed April 12, 2011, Docket No. 101642, and all provisional applications relating thereto, together with U.S. Provisional 61/323,756, filed April Application No(s). 13, 2010, Docket No. 101642P1, with U.S. Provisional Application No(s). 61/387,878, filed September 29, 2010, Docket No. 101642P2, with U.S. Provisional Application No(s). 61/387,886, filed September 29, 2010, Docket No. 103029P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

AND WE DO 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 or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies

arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at	, on	
LOCATION	, on DATE	Osok Song
Done at <u>Sin Dirego</u> LOCATION	, on	Aleksandar Damnjanovic
Done at	, on	
LOCATION	DATE	Tingfang Ji
Done at		
LOCATION	DATE	Taesang You
Done at	, on	
LOCATION	DATE	Parag Arun Agashe
Done at	, on	
LOCATION	, on	Madhavan Srinivasan Vajapeyam

PATENT

Docket No. 101642 Page 4 of 4

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _		, on		
	LOCATION		DATE	Yongbin Wei
Done at _		, on		
	LOCATION		DATE	Tao Luo
Done at _		, on		
	LOCATION		DATE	Rajat Prakash
Done at_	·	, on		
	LOCATION		DATE	Masato Kitazoe

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AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

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Done at		on			
	LOCATION		DATE		Osok Song
Done at _	LOCATION	on	DATE		Aleksandar Damnjanovic
					Tingfang Ji
Done at	LOCATION	, on	DATE		Taesang Yoo
Done at	LOCATION	, on	DATE	· · · · · · · · · · · · · · · · · · ·	Parag Arun Agashe
Done at	LOCATION	, on _	DATE	Mac	lhayan Srinivasan Vajapeyam

PATENT

Docket No. 101642 Page 4 of 4

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	LOCATION		DATE	Yongbin Wei	
Done at		, on			
1	LOCATION		DATE	Tao Luo	
Done at		, on			
	LOCATION		DATE	Rajat Prakash	
Done at		, on			
	LOCATION		DATE	Masato Kitazoe	

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WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-

1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, including but not limited to U.S. Application No(s). 13/085,373 filed April 12, 2011, Docket No. 101642, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/323,756, filed April 13, 2010, Docket No. with U.S. Provisional Application No(s), 61/387,878, filed September 29, 2010, Docket No. 101642P2, with U.S. Provisional Application No(s). 61/387,886, filed September 29, 2010, Docket No. 103029P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

AND WE DO 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 or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies

arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at		, on		
	LOCATION	•	DATE	Osok Song
Done at_		, on		Aleksandar Damnjanovic
	LOCATION		DATE	Aleksandar Damnjanovic
Done at_		, on _		Tingfang Ji
Done at	San Dream	, on	6/1/11	Taesang Yoo
_	LOCATION		DATE	Taesang Yoo
Done at _	· · · · · · · · · · · · · · · · · · ·	_, on		
	LOCATION		DATE	Parag Arun Agashe
Done at	LOCATION	, on		
	LOCATION		DATE	Madhavan Srinivasan Vajapeyam

PATENT

Docket No. 101642 Page 4 of 4

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at_		, on		
·	LOCATION		DATE	Yongbin Wei
Done at _		, on		
	LOCATION		DATE	Tao Luo
Done at		, on		
	LOCATION		DATE	Rajat Prakash
Done at_		, on		
	LOCATION		DATE	Masato Kitazoe

ASSIGNMENT

WHEREAS, WE,

- 1. Osok Song, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 2. Aleksandar Damnjanovic, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Del Mar, CA,
- 3. Tingfang Ji, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 4. Taesang Yoo, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 5. Parag Arun Agashe, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA.
- 6. Madhavan Srinivasan Vajapeyam, a citizen of Brazil, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 7. Yongbin Wei, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 8. Tao Luo, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 9. Rajat Prakash, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of La Jolla, CA,
- 10. Masato Kitazoe, a citizen of Japan, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Tokyo, Japan,

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to RESOURCE PARTITIONING INFORMATION FOR ENHANCED INTERFERENCE COORDINATION (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-

1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

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AND WE DO 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 or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument:

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies

arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

22 4		
Done at	, on	
LOCATION	DATE	Osok Song
Done at	, on	
LOCATION	DATE	Aleksandar Damnjanovic
Done at	, on	
LOCATION	DATE	Tingfang Ji
Done at	., on	
LOCATION	, on	Taesang Yoo
Done at San Dices), on <u>65-16-26\\</u> DATE	W. T.
LOCATION	DATE	Parag Arun Agashe
Done at	• on	
	DATE	Madhavan Srinivasan Vajapeyam

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at		, on		
~	LOCATION		DATE	Yongbin Wei
Done at _		, on	***************************************	
	LOCATION		DATE	Tao Luo
Done at		, on		
	LOCATION		DATE	Rajat Prakash
Done at		nh.		
Done at	LOCATION	, on	DATE	Masato Kitazoe

ASSIGNMENT

WHEREAS, WE,

- 1. Osok Song, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
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- 8. Tao Luo, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA.
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- 10. Masato Kitazoe, a citizen of Japan, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Tokyo, Japan,

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to **RESOURCE PARTITIONING INFORMATION FOR ENHANCED INTERFERENCE COORDINATION** (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-

1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

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AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at		, on		
	LOCATION		DATE	N Osok Song
Done at _		, on		
	LOCATION		DATE	Aleksandar Damnjanovic
Done at _		, on	DATE	
	LOCATION		DATE	Tingfang Ji
Done at		, on		
	LOCATION		DATE	Taesang Yoo
Done at		, on		Payas Ayyas Asaaba
***************************************	LOCATION		DATE	Parag Arun Agashe
Done at	400000000000000000000000000000000000000	. on		
~ www.wi-	LOCATION			Madhavan Srinivasan Vajapeyam

PATENT

Docket No. 101642 Page 4 of 4

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at_	San Die	goon_	July 18, 2011	450	
	LOCATION	J -	DAGE	Yongbin Wei	
Done at _		on_			
	LOCATION		DATE	Tao Luo	
Done at		, on			
~	LOCATION		DATE	Rajat Prakash	
Done at		. on			
~	LOCATION		DATE	Masato Kitazoe	٠

ASSIGNMENT

WHEREAS, WE,

- 1. Osok Song, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA.
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have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to RESOURCE PARTITIONING INFORMATION FOR ENHANCED INTERFERENCE COORDINATION (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

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AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at		, on		Osak Sana
	LOCATION		DATE	Osok Song
Done at _		, on		
	LOCATION		DATE	Aleksandar Damnjanovic
Done at _	***************************************	, on		Tinofano Ji
	LOCATION		DATE	Tingfang Ji
Done at		, on		
	LOCATION		DATE	Taesang Yoo
Done at		, on		Dange Anna Agasha
	LOCATION		DATE	Parag Arun Agashe
Done at		, on		
	LOCATION	········? **** ,	DATE	Madhavan Srinivasan Vajapeyam

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Done at		_, on			
,	LOCATION		DATE	Yongbin Wei	
Done at	San Dago	, on	06/21/2011		
	LOCATION		DATE	Tao Luo	
Done at		_, on			
	LOCATION		DATE	Rajat Prakash	
Done at		_, on _			
	LOCATION		DATE	Masato Kitazoe	

ASSIGNMENT

WHEREAS, WE,

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WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-

1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, including but not limited to U.S. Application No(s), 13/085,373 filed April 12, 2011, Docket No. 101642, and all provisional applications relating thereto, together with U.S. Provisional Application No(s), 61/323,756, filed April 13, 2010, Docket No. 101642P1, with U.S. Provisional Application No(s). 61/387,878, filed September 29, 2010, Docket No. 101642P2, with U.S. Provisional Application No(s). 61/387,886, filed September 29, 2010, Docket No. 103029P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

AND WE DO 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 or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies

arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at		, on		
. 	LOCATION		DATE	Osok Song
Done at_		, on		Aleksandar Damnjanovic
	LOCATION		DATE	Aleksandar Damnjanovic
Done at_		, on		
	LOCATION		DATE	Tingfang Ji
Done at		, on		·
	LOCATION		DATE	Taesang Yoo
Done at		, on		
	LOCATION		DATE	Parag Arun Agashe
Done of		on		
rone at	LOCATION			Madhavan Srinivasan Vajapeyam

PATENT

Docket No. 101642 Page 4 of 4

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at	,	on		
	LOCATION	DATE	Yongbin Wei	
Done at		on		
	LOCATION	DATE	Тао Сио	
Done at		on		
	LOCATION	DATE	Rajat Prakash	
Done at	Tokre Japan.	on May 16, 20	// M Klazol Masato Kitazoe	
	LOCATION	DATE	Masato Kitazoe	

RECORDED: 07/22/2011