Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 884.195US1

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Intel Corporation Seong-Youp Suh, Salih Yarga, Anand S Konanur, Songnan Yang, Ulun Karacaoglu Street Address: 2200 Mission College Blvd. Additional name(s) of conveying party(ies) attached? City: Santa Clara State: CA Zip: 95052 Country: United States of America []Yes [X]No Additional name(s) & address(es) attached? []Yes 3. Nature of conveyance: [X]No [X] Assignment [] Merger [] Security Agreement[] Change of Name [] Other Execution Date: <u>August 28, 2009</u>, <u>August 17, 2009</u>, <u>August 6, 2009</u>, <u>August 7, 2009</u>, <u>February 10, 2010</u>

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)

Serial No. 12/536,132, filed August 5, 2009

Additional numbers attached?	[]Yes	[X]No
------------------------------	---	------	-------

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Gregory J. Gorrie

Address: Schwegman, Lundberg & Woessner, P.A. P.O. Box 2938 Minneapolis, MN 55402--0938 6. Total number of applications and patents involved: 1

B. Patent No.(s)

7. Total fee (37 CFR 3.41):\$ 40.00

[]Enclosed [X]Authorized to be charged to deposit account 19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Gregory J. Gorrie/Reg. No. 36,530	goy J. Jonie	/ _{May 25, 2011}
Name of Person Signing	Signature	Date
	Total number of pages inc	luding cover sheet: 16

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450

PATENT REEL: 026359 FRAME: 0264

700463768

5/8

Aug-25-2009 03:15 PM Intel Corporation 408-653-7407

ASSIGNMENT

WHEREAS, We, <u>Seong-Youp Suh</u>, residing at <u>1053 Bentoak Ln.</u>, <u>San Jose, CA</u> <u>95129</u>, and <u>Salih Yarga</u>, residing at <u>1320 Kinnear Road</u>, <u>Columbus, OH 43212</u>, and <u>Anand S</u> <u>Konanur</u>, residing at <u>1063 Morse Ave. Apt 8-102</u>, <u>Sunnyvale</u>, <u>CA 94089</u>, and <u>Songnan Yang</u>, residing at <u>274 Snell Ct.</u>, <u>San Jose, CA 95123</u>, and <u>Ulun Karacaoglu</u>, residing at <u>10932 Caminito</u> <u>Arcada</u>, <u>San Diego, CA 92131</u>, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on <u>August 5, 2009</u>, which application was assigned U.S. patent application serial number <u>12/536,132</u>, and is entitled <u>MULTIPROTOCOL ANTENNA STRUCTURE AND METHOD FOR SYNTHESIZING A</u> <u>MULTIPROTOCOL ANTENNA PATTERN</u>:

AND WHEREAS, <u>Intel Corporation</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at <u>2200</u> <u>Mission College Blvd.</u>, <u>Santa Clara, CA 95052</u> (hereinafter "Assignee"), is desirous of acquiring the entire right, priority right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

6/8

Docket No: 884.195US1 Serial Number : 12/536.132 Filing Date : August 5, 2009 Page 2 of 3

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignce, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 24th day of <u>August</u> , 2009
Seong-Youp Suh
IN TESTIMONY WHEREOF, I have hereunto set my hand this day of, 2009
Salih Yarga
IN TESTIMONY WHEREOF, I have hereunto set my hand this day of, 2009
Anand S. Konanur
IN TESTIMONY WHEREOF, I have hereunto set my hand this day of, 2009
Songnan Yang

PATENT REEL: 026359 FRAME: 0266

.

7/8

Aug-25-2009 03:15 PM Intel Corporation 408-653-7407

Docket No: 884.195US1 Serial Number : 12/536,132 Filing Date : August 5, 2009 Page 3 of 3

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Ulun Karacaoglu

.

WHEREAS, We, <u>Seong-Youp Suh</u>, residing at <u>1053 Bentoak Ln.</u>, <u>San Jose, CA</u> <u>95129</u>, and <u>Salih Yarga</u>, residing at <u>1320 Kinnear Road</u>, <u>Columbus</u>, <u>OH 43212</u>, and <u>Anand S</u> <u>Konanur</u>, residing at <u>1063 Morse Ave</u>, <u>Apt 8-102</u>, <u>Sunnyvale</u>, <u>CA 94089</u>, and <u>Songnan Yang</u>, residing at <u>274 Snell Ct.</u>, <u>San Jose</u>, <u>CA 95123</u>, and <u>Ulun Karacaoglu</u>, residing at <u>10932 Caminito</u> <u>Arcada</u>, <u>San Diego</u>, <u>CA 92131</u>, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on <u>August 5, 2009</u>, which application was assigned U.S. patent application serial number <u>12/536,132</u>, and is entitled <u>MULTIPROTOCOL ANTENNA STRUCTURE AND METHOD FOR SYNTHESIZING A</u> <u>MULTIPROTOCOL ANTENNA PATTERN</u>;

AND WHEREAS, <u>Intel Corporation</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at <u>2200</u> <u>Mission College Blvd.</u>, <u>Santa Clara, CA 95052</u> (hereinafter "Assignee"), is desirous of acquiring the entire right, priority right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No: 884.195US1	
Serial Number : 12/536,132	
Filing Date : August 5, 2009	
Page 2 of 3	

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Seong-Youp Suh

IN TESTIMONY WHEREOF, I have hereunto set my hand this 17th day of _	Avayst	, 2009.
Salih Yarga		
\mathbf{V}		

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Anand S. Konanur

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Songnan Yang

Docket No: 884.195US1 Serial Number : 12/536,132 Filing Date : August 5, 2009 Page 3 of 3

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Ulun Karacaoglu

WHEREAS, We, Seong-Youp Suh, residing at <u>1053 Bentoak Ln.</u>, San Jose, CA <u>95129</u>, and <u>Salih Yarga</u>, residing at <u>1320 Kinnear Road</u>, <u>Columbus</u>, OH <u>43212</u>, and <u>Anand S Konanur</u>, residing at <u>1063 Morse Ave</u>, <u>Apt 8-102</u>, <u>Sunnyvale</u>, <u>CA 94089</u>, and <u>Songnan Yang</u>, residing at <u>274 Snell Ct.</u>, <u>San Jose</u>, <u>CA 95123</u>, and <u>Ulun Karacaoglu</u>, residing at <u>10932 Caminito Areada</u>, <u>San Diego</u>, <u>CA 92131</u>, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on <u>August 5, 2009</u>, which application was assigned U.S. patent application serial number <u>12/536,132</u>, and is entitled <u>MULTIPROTOCOL ANTENNA STRUCTURE AND METHOD FOR SYNTHESIZING A</u> <u>MULTIPROTOCOL ANTENNA PATTERN</u>:

AND WHEREAS, <u>Intel Corporation</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at <u>2200</u> <u>Mission College Blvd.</u>, <u>Santa Clara, CA 95052</u> (hereinafter "Assignee"), is desirous of acquiring the entire right, priority right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee, its successors and assigns.

neket No; 884,195US1	
rial Number : 12/536,132	
ing Date August 5, 2009	
gc 2 of 3	

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____. 2009.

Seong-Youp Suh

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Salih Yarga

IN TESTIMONY	WHEREOF, I have hereunto se	et my hand this	<u>6</u> day	of August	, 2009.
		KM	, ,	0	

Anand S. Konanur

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Songnan Yang

Docket No: 884,195US1 Serial Number : 12/536,132 Filing Date : August 5, 2009 Page 3 of 3

IN TESTIMONY WHEREOF, I have hereunto set my hand this ______ day of ______, 2009.

Ulun Karacaoglu

WHEREAS, We, <u>Seong-Youp Sub</u>, residing at <u>1053 Bentoak Ln</u>, <u>San Jose, CA</u> <u>95129</u>, and <u>Salih Yarga</u>, residing at <u>1320 Kinnear Road</u>, <u>Columbus</u>, <u>OH 43212</u>, and <u>Anand S</u> <u>Konanur</u>, residing at <u>1063 Morse Ave</u>, <u>Apt 8-102</u>, <u>Sunnyvale</u>, <u>CA 94089</u>, and <u>Songnan Yang</u>, residing at <u>274 Snell Ct</u>, <u>San Jose</u>, <u>CA 95123</u>, and <u>Ulun Karacaoglu</u>, residing at <u>10932 Caminito</u> <u>Arcada</u>. <u>San Diego</u>, <u>CA 92131</u>, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on <u>August 5, 2009</u>, which application was assigned U.S. patent application serial number <u>12/536,132</u>, and is entitled <u>MULTIPROTOCOL ANTENNA STRUCTURE AND METHOD FOR SYNTHESIZING A</u> <u>MULTIPROTOCOL ANTENNA PATTERN</u>;

AND WHEREAS, <u>Intel Corporation</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at <u>2200</u> <u>Mission College Blvd.</u>, <u>Santa Clara, CA 95052</u> (hereinafter "Assignee"), is desirous of acquiring the entire right, priority right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No. 884 195US1 Serial Number : 12/536,132 Filing Date August 5, 2009 Page 2 of 3

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Seong-Youp Suh

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Salih Yarga

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Anand S. Konanur

IN TESTIMONY WHEREOF, I have hereunto set my hand this <u>7th</u> day of <u>August</u>, 2009.

Docket No. 884,1951/81 Serial Number 12/536,132 Filing Date : August 5, 2009 Page 3 of 3

.

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2009.

Ulun Karacaoglu

WHEREAS, We, <u>Seong-Youp Suh</u>, residing at <u>1053 Bentoak Ln.</u>, <u>San Jose, CA</u> <u>95129</u>, and <u>Salih Yarga</u>, residing at <u>1320 Kinnear Road</u>, <u>Columbus</u>, <u>OH 43212</u>, and <u>Anand S</u> <u>Konanur</u>, residing at <u>1063 Morse Ave</u>, <u>Apt 8-102</u>, <u>Sunnyvale</u>, <u>CA 94089</u>, and <u>Songnan Yang</u>, residing at <u>274 Snell Ct.</u>, <u>San Jose, CA 95123</u>, and <u>Ulun Karacaoglu</u>, residing at <u>10932 Caminito</u> <u>Arcada</u>, <u>San Diego, CA 92131</u>, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on <u>August 5, 2009</u>, which application was assigned U.S. patent application serial number <u>12/536,132</u>, and is entitled <u>MULTIPROTOCOL ANTENNA STRUCTURE AND METHOD FOR SYNTHESIZING A</u> <u>MULTIPROTOCOL ANTENNA PATTERN;</u>

AND WHEREAS, <u>Intel Corporation</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at <u>2200</u> <u>Mission College Blvd.</u>, <u>Santa Clara, CA 95052</u> (hereinafter "Assignee"), is desirous of acquiring the entire right, priority right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No: 884.195US1 Serial Number : 12/536,132 Filing Date : August 5, 2009 Page 2 of 3

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this		day of	, 2010.
	Seong-Youp Suh		
IN TESTIMONY WHEREOF, I have he	ereunto set my hand this	day of	, 2010.
	Salih Yarga		
IN TESTIMONY WHEREOF, I have he	ereunto set my hand this	day of	, 2010.
	Anand S. Konanur		
IN TESTIMONY WHEREOF, I have he			
	Songnan Yang		

Docket No: 884.195US1 Serial Number : 12/536.132 Filing Date : August 5, 2009 Page 3 of 3

IN TESTIMONY WHEREOF, I have hereunto set my hand this 10 day of February, 2009.

u IC Ulun Karacaoglu