PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3561123

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the LAST INVENTOR'S NAME FROM 'BERNARD RAAF' TO 'BERNHARD RAAF' previously recorded on Reel 034258 Frame 0934. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNOR'S INTEREST.

CONVEYING PARTY DATA

Name	Execution Date
ADEL A. ELSHERBINI	11/25/2014
TELESPHOR KAMGAING	11/11/2014
PABLO HERRERO	11/12/2014
BERNHARD RAAF	10/01/2015

RECEIVING PARTY DATA

Name:	INTEL CORPORATION
Street Address:	2200 MISSION COLLEGE BOULEVARD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14552587

CORRESPONDENCE DATA

	o the e	332-8352 e-mail address first; if that is unsuccessful, it will be sent pat is unsuccessful, it will be sent via US Mail.		
Email:	ILOH-Formals@cpaglobal.com			
Correspondent Name: FORE		FRONT IP LAWGROUP, PLLC		
Address Line 1: C/O C		CPA GLOBAL		
Address Line 2:	PO BOX 52050			
Address Line 4:	MINNEAPOLIS, MINNESOTA 55402			
ATTORNEY DOCKET NUMBER:		P68275		
NAME OF SUBMITTER:		SANJAY ROY		
SIGNATURE:		/Sanjay Roy/		
DATE SIGNED:		10/08/2015		
Total Attachments: 10				

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYI	PE: NEW ASSIGNMENT				
NATURE OF CON	VEYANCE	:	ASSIGNMENT		
CONVEYING PAR	RTY DATA				
	Name Execution			Execution Date	
ADEL A. ELSHER	BINI			11/25/2014	
TELESPHOR KAN	/IGAING			11/11/2014	
PABLO HERRERO)			11/12/2014	
BERNARD RAAF				11/11/2014	
RECEIVING PAR	TY DATA				
Name:	INTEL CO	RPOR	ATION		
Street Address:	2200 MISS	ION C	COLLEGE BLVD		
City:	SANTA CL	ARA			
State/Country:	CALIFORM	VIA			
Postal Code:	95054		*****		
Property Type		14553	Number	r	
Application Number: 14552587					
CORRESPONDENCE DATA Fax Number: (612)677-3572 Email: inteldocs_docketing@cpaglobal.com Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail. Correspondent Name: EMMANUEL A. RIVERA Address Line 1: 2200 MISSION COLLEGE BLVD Address Line 4: SANTA CLARA, CALIFORNIA 95054					
ATTORNEY DOCKET NUMBER:			P68275		
NAME OF SUBMI	TTER:		EMMANUEL A. RIVERA		
Signature:		/Emmanuel A. Rivera/			
Date: 11/25/201		11/25/2014			
Total Attachments: 3 source=P68275_EXE_ASSIGN#page1.tif					

PATENT

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RECEIPT INFORMATI	ON		
EPAS ID:	PAT3121952		
Receipt Date:	11/25/2014		

Attorney Docket No.: P68275

Bernhard

<u>ASSIGNMENT</u>

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

ADEL A. ELSHERBINI; TELESPHOR KAMGAING; PABLO HERRERO; DERNARD RAAF

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entitie right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

DUAL POLARIZED ANTENNA ARRAY

(I hereby authorize and request any attorney having appropriate authority from the assignce to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on Novemb	er 25, 2014		
USA COUNTRY or International Office	Application Number	14/552,587	and

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below.

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignce may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignce, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignce, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and

Page 1 of 2

PATENT REEL: 036816 FRAME: 0337

Attorney Docket No.: P68275

the history thereof, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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

Adel A. Elsherbini

Telesphor Kamgaing

Pablo Herrero

<u>||_____</u> Bernard Ruaf

Bernhard Raaf

Date signed

Date signed

Date signed

024.136 2015

Date signed

<u>ASSIGNMENT</u>

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

ADEL A. ELSHERBINI; TELESPHOR KAMGAING; PABLO HERRERO; BERNARD RAAF

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

DUAL POLARIZED ANTENNA ARRAY

(I hereby authorize and request any attorney having appropriate authority from the assignce to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on Novembe	er 25, 2014	as	
USA COUNTRY or International Office	Application Number	14/552,587	and

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and

Page 1 of 2

PATENT REEL: 036816 FRAME: 0339

Attorney Docket No.: P68275

the history thereof, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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

<u>_eller</u>

Adel A. Elsherbini

<u>11-25-2014</u> Date signed

Telesphor Kamgaing

Date signed

Pablo Herrero

Bernard Raaf

Date signed

Date signed

<u>ASSIGNMENT</u>

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

ADEL A. ELSHERBINI; TELESPHOR KAMGAING; PABLO HERRERO; BERNARD RAAF

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

DUAL POLARIZED ANTENNA ARRAY

(I hereby authorize and request any attorney having appropriate authority from the assignce to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on	Novembe	er 25, 2014	as		
USA COUNTRY or Inter		Application Number	14/552,587	a	ind

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and

Page 1 of 2

PATENT REEL: 036816 FRAME: 0341

the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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

Adel A. Elsherbini

Date signed

Canage in

Telesphor Kamgaing

Pablo Herrero

Bernard Raal

11-11-2014

Date signed

<u>| 2/42// 2014</u> Date signed

// -11 -2014 Date signed

RECORDED: 10/08/2015