508124864 09/18/2023

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT8172044

SUBMISSION TYPE:	
	Corrective Assignment to correct the FIRST NAME OF THE FIRST INVENTOR previously recorded on Reel 064188 Frame 0384. Assignor(s) hereby confirms the FIRST NAME OF THE FIRST INVENTOR IS DMITRY.

CONVEYING PARTY DATA

Name	Execution Date
DMITRY KOZLOV	07/15/2019
SENAD BULJA	07/15/2019

RECEIVING PARTY DATA

Name:	NOKIA SOLUTIONS AND NETWORKS OY	
Street Address:	KARAKAARI 7	
City:	ESPOO	
State/Country:	FINLAND	
Postal Code:	02610	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16910299

CORRESPONDENCE DATA

Fax Number: (704)444-1111

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.

Phone: 7044441000

Email: usptomail@alston.com
Correspondent Name: ALSTON & BIRD LLP

Address Line 1: 1120 SOUTH TRYON STREET

Address Line 2: SUITE 300

Address Line 4: CHARLOTTE, NORTH CAROLINA 28203-6818

ATTORNEY DOCKET NUMBER:	042933/549915
NAME OF SUBMITTER:	TORREY L. WYATT
SIGNATURE:	/Torrey L. Wyatt/
DATE SIGNED:	09/18/2023

Total Attachments: 5

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PATENT 508124864 REEL: 064932 FRAME: 0319

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> PATENT REEL: 064932 FRAME: 0320

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT8046028

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

DMITRY	Name	
-DIMFFRY KOZLOV		07/15/2019
SENAD BULJA		07/15/2019

RECEIVING PARTY DATA

Name:	NOKIA SOLUTIONS AND NETWORKS OY
Street Address:	KARAKAARI 7
City:	ESPOO
State/Country:	FINLAND
Postal Code:	02610

PROPERTY NUMBERS Total: 1

Property Type	Number			
Application Number:	16910299			

CORRESPONDENCE DATA

Fax Number: (704)444-1111

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Phone: 7044441000

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Correspondent Name: ALSTON & BIRD LLP

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Address Line 4: CHARLOTTE, NORTH CAROLINA 28203-6818

ATTORNEY DOCKET NUMBER:	042933/549915
NAME OF SUBMITTER:	TORREY L. WYATT
SIGNATURE:	/Torrey L. Wyatt/
DATE SIGNED:	07/07/2023

Total Attachments: 3

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> PATENT REEL: 064932 FRAME: 0321

ASSIGNMENT - WORLDWIDE

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Dmitry Kozlov, Dublin, Ireland
Senad Bulja, Dublin, Ireland
Jack Millist. Carcassonne. France

ASSIGNEE

Nokia Solutions and Networks Oy

Karaportti 3, 02610 Espoo, Finland

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the ASSIGNOR(S) agree to assign and hereby assign, sell, transfer and set over to the ASSIGNEE and its successors, assigns and legal representatives, the entire right, title and interest, for United States of America and for all other countries in and to (1) the invention(s) identified by the following title or application number and filing date, and (2) any and all related inventions ("RELATED INVENTIONS" as defined below).

Title: AN ANTENNA HAVING CONTROLLED DIRECTIVITY

Application number: **EP 19182123.0** Filing date: **2019-06-25**

(YYYY-MM-DD)

I/we, the ASSIGNOR(S), hereby authorize and request a representative of the ASSIGNEE to insert the application number and filing date when known/received, after the execution of this document. The ASSIGNOR(S) hereby acknowledge and agree that the ASSIGNEE shall have the right to claim priority, directly or through another patent application, to the application identified above in any and all related patent applications subsequently filed in all jurisdictions.

I/we the ASSIGNOR(S) hereby acknowledge and agree that RELATED INVENTIONS include all national, regional and international patent applications filed and to be filed in any and all jurisdictions, that claim priority to the invention(s) identified by the above title or application number and filing date, said patent applications include all divisionals, continuations, re-issues, re-examinations, and continuations-in-part applications, and RELATED INVENTIONS include all rights and privileges in said patent applications and under any and all letters patent that may be granted in the United States of America and in all other countries resulting from said patent applications.

The ASSIGNOR(S) authorize the ASSIGNEE to make applications for such protection in its own name and maintain such protection in any and all countries including the United States of America, and to invoke and claim for any application for patent or other form of protection for said invention(s), without further authorization from us, any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.

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PATENT REEL: 064932 FRAME: 0322 The ASSIGNOR(S) hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of the ASSIGNEE to apply for patent or other form of protection for said invention(s) and to claim the aforesaid benefit of the right of priority.

The ASSIGNOR(S) request that any and all patents for said invention(s) be issued to the ASSIGNEE, its/their successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as the ASSIGNEE may designate.

The ASSIGNOR(S) agree that, when requested, we shall, without charge to the ASSIGNEE sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
Dmitry Kozlov		<u> </u>
Senad Bulja	LSund	2014-07-15
	· ·	
Jack Millist		
This assignment should preferably who also sign here, or (b) a Notary I Witness Name (First Middle LAST)		Date (YYYY-MM-DD)
This assignment should preferably who also sign here, or (b) a Notary I	Public if within the U.S.A.:	

The ASSIGNEE accepts this assignment:	
Name	Signature
Title	Date (YYYY-MM-DD)
Name	Signature
Title	Date (YYYY-MM-DD)

2/2

v-14Dec18

The ASSIGNOR(S) hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of the ASSIGNEE to apply for patent or other form of protection for said invention(s) and to claim the aforesaid benefit of the right of priority.

The ASSIGNOR(S) request that any and all patents for said invention(s) be issued to the ASSIGNEE, its/their successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as the ASSIGNEE may designate.

The ASSIGNOR(S) agree that, when requested, we shall, without charge to the ASSIGNEE sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

In witness whereof, each inventor/assignor please sign and date below:				
Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)		
Dmitry Kozlov				
Senad Bulja				
Jack Millist				
This assignment should preferably be who also sign here, or (b) a Notary P Witness Name (First Middle LAST)	be signed by the inventor(s) before (a) ublic if within the U.S.A.: Signature	at least two witnesses Date (YYYY-MM-DD)		

The ASSIGNEE accepts this assignment: Name Per Möller Title Authorized Signatory	Per Möller Signature (1999-1998 2021 18.28 (1999) Date (1999-1999) Sep 8, 2021
Name Xin Liu Title Authorized Signatory	Signature Series (Sept. 1. 2021) Date (YYYY-MM-DD) Sep 11, 2021

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