

PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
FILIPPO TOSATO	07/31/2019
MARCO MASO	07/31/2019
NHAT-QUANG NHAN	08/21/2019
HAO LIU	08/05/2019
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State/Country:	CHINA
Postal Code:	201206
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:	17730915
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ATTORNEY DOCKET NUMBER:	042933/577213

NAME OF SUBMITTER:	CARTER W. REEB
SIGNATURE:	/Carter W. Reeb/
DATE SIGNED:	04/28/2022
Total Attachments: 5 source=2022_04_27_577213_InventorAssignment#page1.tif source=2022_04_27_577213_InventorAssignment#page2.tif source=2022_04_27_577213_InventorAssignment#page3.tif source=2022_04_27_577213_InventorAssignment#page4.tif source=2022_04_27_577213_InventorAssignment#page5.tif	

ASSIGNMENT - WORLDWIDE

ASSIGNOR(S)

Filippo Tosato, Bures sur Yvette, France

Marco Maso, Issy les Moulineaux, France

Nhat-Quang Nhan, Bourq-la-Reine, France

Hao Liu, Shanghai, China

ASSIGNEES

Nokia Shanghai Bell Co., Ltd.
388 Ningqiao Road, Shanghai, 201206, People's Republic of China

NOKIA SOLUTIONS AND NETWORKS OY
Karakaari 7 (as of 1 July 2019, formerly 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 ASSIGNEES 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).

Application Title: UPLINK CONTROL INFORMATION

Application number: WO PCT/CN2019/081612 Filing date: 2019-04-04
(YYYY-MM-DD)

I/we, the ASSIGNOR(S), hereby authorize and request a representative of the ASSIGNEE to insert the application title, 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 ASSIGNEES 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,

→ 2

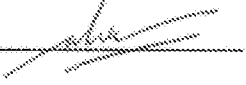
and to invoke and claim for any application for patent or other form of protection for said invention(s), without further authorization from us, any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.

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 ASSIGNEES to apply for patent or other form of protection for said invention(s) and to claim the aforesaid benefit of the right of priority.


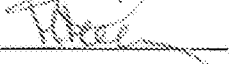
The ASSIGNOR(S) request that any and all patents for said invention(s) be issued to the ASSIGNEES, its/their successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as the ASSIGNEES may designate.

The ASSIGNOR(S) agree that, when requested, we shall, without charge to the ASSIGNEES 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)
<u>Filippo Tosato</u>	<u>_____</u>	<u>_____</u>
<u>Marco Maso</u>	<u>_____</u>	<u>_____</u>
<u>Nhat-Quang Nhan</u>	<u></u>	<u>2019-08-21</u>
<u>Hao Liu</u>	<u>_____</u>	<u>_____</u>

This assignment should preferably be signed by the inventor(s) before (a) at least two witnesses who also sign here, or (b) a Notary Public if within the U.S.A.:

Witness Name (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Yannick Lais</u>	<u></u>	<u>2019-08-21</u>
<u>Helen Newman</u>	<u></u>	<u>2019-08-21</u>

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.

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 ASSIGNEES 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 ASSIGNEES, its/their successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as the ASSIGNEES may designate.

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In witness whereof, each inventor/assignor please sign and date below:		
Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Filippo Tosato</u>	_____	_____
<u>Marco Maso</u>	_____	_____
<u>Nhat-Quang Nhan</u>	_____	_____
<u>Hao Liu</u>	<u>Hao Liu</u>	<u>2019.8.5</u>
This assignment should preferably be signed by the inventor(s) before (a) at least two witnesses who also sign here, or (b) a Notary Public if within the U.S.A.:		
Witness Name (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Dong li</u>	<u>Dong li</u>	<u>2019-8-5</u>
<u>Haidyuan Guan</u>	<u>Haidyuan Guan</u>	<u>2019-8-5</u>

→ 2

The ASSIGNEES accept this assignment:

Nokia Shanghai Bell Co., Ltd.

Name Edmond ZHANG

Signature 

Title EDGM

Date (YYYY-MM-DD) 2019.8.15

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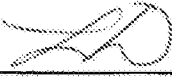
Name Yan Wang

Signature 

Title Manager, Patenting

Date (YYYY-MM-DD) OCT 24 2019

Name Louis Diep

Signature 

Title Director, Filing & Prosecution Admin

Date (YYYY-MM-DD) OCT 24 2019