

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
WIRELESS SYSTEM ENGINEERING FINLAND OY	09/22/2020
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:	18251490
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Email:	Nokia.IPR@nokia.com
Correspondent Name:	NOKIA OF AMERICA CORPORATION
Address Line 1:	600-700 MOUNTAIN AVENUE
Address Line 4:	MURRAY HILL, NEW JERSEY 07974-0636
ATTORNEY DOCKET NUMBER:	319996-US-PCT
NAME OF SUBMITTER:	MUKESH KUMAR SRIWASTAVA
SIGNATURE:	/Mukesh Kumar Sriwastava/
DATE SIGNED:	07/07/2023
Total Attachments: 7	
source=NC319996_Executed assignment between Nokia and Wise#page1.tif	
source=NC319996_Executed assignment between Nokia and Wise#page2.tif	
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INVENTION ASSIGNMENT AGREEMENT

This Invention Assignment Agreement ("Agreement") is made by and between **WIRELESS SYSTEM ENGINEERING FINLAND OY**, a corporation validly organized and existing under the laws of Finland having its principal address at Siitakekatu 15, 37130 Nokia, Finland ("WISE") and **NOKIA SOLUTIONS AND NETWORKS OY**, a corporation organized under the laws of Finland, having its registered office at Karakaari 7, FI-02610 Espoo, Finland ("Nokia"), together referred to as "Parties"

WHEREAS:

- (A) WISE owns an interest in the invention identified below by the inventors' names and the title of the invention or the application number and filing date ("Invention"). The Invention was created in a research/collaboration project ("Project") between WISE and Nokia Solutions and Networks Oy. The results of the Project are governed by the Project Agreement for Subcontracted Research between Nokia Solutions and Networks Oy and Wireless System Engineering Finland Oy dated January 13th, 2020 ("Project Agreement");

Nokia internal reference: NC319996

Inventors: Toni Alekski Levanen and Juha Yli-Kaakinen

Title of invention disclosure: Symbol-Synchronous Continuous Fast-Convolution-Based Processing

Application Title: SYMBOL-SYNCHRONOUS CONTINUOUS FAST-CONVOLUTIONBASED PROCESSING

Application number: FI 20206110

Filing date: 2020-11-05
(YYYY-MM-DD)

WISE hereby authorizes and requests a representative of Nokia to insert the application title, application number and filing date when known/received, even after the execution of this document.

- (B) Nokia Solutions and Networks Oy desires to acquire WISE's entire right, title and interest in and to the Invention which WISE has agreed to assign.

NOW THEREFORE IT IS HEREBY AGREED:

1. The Parties acknowledge and agree that for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, WISE hereby assigns, sells, transfers and sets over to Nokia and all its successors, assigns and legal representatives the entire right, title and interest (1) in and to the Invention for the United States of America and for all other countries,

jurisdictions and political entities of the world, and (2) in and to any and all related inventions ("Related Inventions" as defined below) in accordance with clause 8.4 of the Appendix 2 to the Project Agreement.

2. The Parties 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 under Paris Convention, said patent applications include all divisionals, continuations, extensions, 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. Furthermore, Related Inventions include any other applications that may be filed for protection including, without limitation, applications for certificates of invention, utility models, industrial design protection, design patent protection, and provisional patent applications wherever filed, that may be granted, registered, or issued with respect to the Invention.
3. WISE hereby assigns to Nokia all causes of action and enforcement rights related to the Invention and Related Inventions, including, without limitation, the right to sue and to pursue damages, injunctive relief, or other remedies for past, present, or future infringement, misappropriation, or violation of rights related thereto.
4. WISE hereby authorizes Nokia and all its successors, assigns and legal representatives to make applications for such protection in its own name and to 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 the Invention, without further authorization from WISE, any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.
5. WISE and Nokia hereby consent that a copy of Agreement 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 Nokia to apply for patent or other form of protection for the Invention and to claim the aforesaid benefit of the right of priority.
6. WISE requests the respective patent office or governmental agency in each jurisdiction to issue any and all patents or other type of protection for the Invention to Nokia, its successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as Nokia may designate.
7. WISE undertakes to sign, without charge to Nokia, any documents necessary for patent prosecution and provide Nokia with assistance in maintaining, enforcing or assigning any rights of Nokia to the Invention.

8. WISE undertakes not to disclose any parts of the Invention to any third party until and unless and only to the extent the Invention has become public.
9. The terms and conditions of this Agreement will inure to the benefit of Nokia, its successors or assigns, and anyone properly designated by them and will be binding upon WISE, its successors or assigns, and anyone properly designated by them.
10. In the event that a clause or term of this Agreement is regarded invalid, illegal or unenforceable, such invalidity shall not affect the validity of the remaining clauses or terms. The Parties must replace such invalid, illegal or unenforceable clauses or terms with valid clauses or terms that best express the Parties' intent at the time of signing the Agreement.
11. This Agreement may be executed by either handwritten signatures, including the exchange of scanned representations of handwritten signatures, or e-signatures. By using e-signature to sign this Agreement, the Parties acknowledge that execution in this manner creates a binding contract between the Parties.
12. The following Annex is hereby incorporated in this Agreement:
 - a. Annex 1 – Inventor Assignment Agreement


[REMAINDER OF THE PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS whereof the Parties have caused this Agreement to be duly signed and executed on the date of the last signature below or on the date of the last signature of the Annex 1 – Inventor Assignment Agreement, whichever occurs later:

WIRELESS SYSTEM ENGINEERING FINLAND OY

Signature: 
Name: Mikko Valkama
Title: Chairman
Date: Sep 22, 2020

NOKIA SOLUTIONS AND NETWORKS OY

Signature: 
Per Möller (Sep 22, 2020 09:47 GMT+3)
Name: Per Möller
Title: Authorized Signatory
Date: Sep 22, 2020

Signature: 
Anna Haipola (Sep 22, 2020 17:16 GMT+3)
Name: Anna Haipola
Title: Authorized Signatory
Date: Sep 22, 2020

INVENTOR ASSIGNMENT AGREEMENT

This Inventor Assignment Agreement ("Inventor Assignment"), Annex 1 to the Invention Assignment Agreement between WIRELESS SYSTEM ENGINEERING FINLAND OY and NOKIA SOLUTIONS AND NETWORKS OY ("Agreement"), is made by and between

Name	City	Country
Juha Yli-Kaakinen	Tampere	Finland

(Full legal name, city and country of each inventor)

("Assignor(s)")

and

WIRELESS SYSTEM ENGINEERING FINLAND OY

Siiitakekatu 15

37130 Nokia

Finland

("Assignee")

WHEREAS:

- (A) Assignor(s) own(s) an interest in the invention identified below by the inventors' names and the title of the invention or the application number and filing date ("Invention"). The Invention was created in a research/collaboration project between Wireless System Engineering Finland Oy and Nokia Solutions and Networks Oy. Assignor(s) are employed by Assignee;

Nokia internal reference: NC319996	
Inventors: Toni Aleks Levanen and Juha Yli-Kaakinen	
Title of invention disclosure: Symbol-Synchronous Continuous Fast-Convolution-Based Processing	
Application Title: SYMBOL-SYNCHRONOUS CONTINUOUS FAST-CONVOLUTIONBASED PROCESSING	
Application number: FI <u>20206110</u>	Filing date: <u>2020-11-05</u> (YYYY-MM-DD)
Assignor(s) hereby authorize and request Assignee and its successors, assigns and legal representatives to insert the application title, application number and filing date when known/received, even after the execution of this document.	

- (B) Assignee desires to acquire Assignor(s)'s entire right, title and interest in and to the Invention which Assignor(s) has/have agreed to assign.

Annex 1

NOW THEREFORE IT IS HEREBY AGREED:

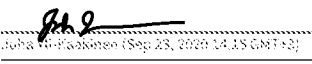
1. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Assignor(s) agree to assign and hereby assign, sell, transfer and set over to the Assignee and its successors, assigns and legal representatives, the entire right, title and interest, for United States of America and for all other countries, jurisdictions and political entities of the world in and to (1) the Invention, and (2) any and all related inventions ("Related Inventions" as defined below).
2. 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, said patent applications include all divisionals, continuations, extensions, 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. Furthermore, Related Inventions include any other applications that may be filed for protection including, without limitation, applications for certificates of invention, utility models, industrial design protection, design patent protection, and provisional patent applications wherever filed, that may be granted, registered, or issued with respect to the Invention.
3. The Assignor(s) hereby assign to Assignee and its successors, assigns and legal representatives all causes of action and enforcement rights related to the Invention and Related Inventions, including, without limitation, the right to sue and to pursue damages, injunctive relief, or other remedies for past, present, or future infringement, misappropriation, or violation of rights related thereto.
4. The Assignor(s) hereby authorize the Assignee and its successors, assigns and legal representatives 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 the Invention, without further authorization from Assignor(s), any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.
5. The Assignor(s) hereby consent that a copy of this Inventor 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 and its successors, assigns and legal representatives to apply for patent or other form of protection for the Invention and to claim the aforesaid benefit of the right of priority.
6. The Assignor(s) request the respective patent office or governmental agency in each jurisdiction to issue any and all patents or other type of protection for the Invention 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.
7. The Assignor(s) agree that, when requested, we shall, without charge to the Assignee, its/their successors, assigns and legal representatives sign all papers, and do all acts which may be

Annex 1

necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

- 8. The terms and conditions of this Inventor Assignment will inure to the benefit of Assignee, its successors or assigns, and anyone properly designated by them and will be binding upon Assignor(s), its successors or assigns, and anyone properly designated by them.
- 9. In the event that a clause or term of this Inventor Assignment is regarded invalid, illegal or unenforceable, such invalidity shall not affect the validity of the remaining clauses or terms. The Assignor(s) and Assignee must replace such invalid, illegal or unenforceable clauses or terms with valid clauses or terms that best express the Assignor(s) and the Assignee's intent at the time of signing the Inventor Assignment.
- 10. The Assignor(s) and Assignee agree that this Inventor Assignment may be executed by either handwritten signatures, including the exchange of scanned representations of handwritten signatures, or e-signatures. By using e-signature to sign this Inventor Assignment, the Assignor(s) and Assignee acknowledge that execution in this manner creates a binding contract between the Assignor(s) and Assignee.

IN WITNESS whereof the Assignor(s) and Assignee have caused this Inventor Assignment to be duly signed and executed on the date of the last signature below or on the date of the last signature of the Agreement, whichever occurs later:

Inventor (First Middle Last)	Signature	Date
Juha Yli-Kaakinen	 <small>Juha Yli-Kaakinen (Sep 23, 2020 14:25 GMT+2)</small>	Sep 23, 2020
_____	_____	_____

WIRELESS SYSTEM ENGINEERING FINLAND OY		
Name	Mikko Valkama	Signature 
Title	Chairman	Date Sep 22, 2020